

QABALA AS A SPIRITUAL PATH

Iona Miller, c1987

*I inquire, I do not assert;
I do not here determine anything with final assurance;
I conjecture, try, compare, attempt, ask...*

Statement of Purpose: The orientation of the Synergetic Qabala sites is to provide serious qabalists with modern conjectures in Theoretical Qabala with the aim of contemporizing our models and practices. The emphasis here is on mysticism and meditation, rather than ritual and magick. These essays, artwork, and visualizations are not meant as a new dogma, practice, or school of thought. They are simply the result of my own thirty-plus years of qabalistic work. I hope they provide a springboard for your own thought. They are meant to stimulate and provoke your own speculations, insights, and experiments.

Qabala is not a static doctrine, but a living Way. Qabala is an experiential path, an experiment which lasts throughout one's life. Qabala is ultimately about access to and experience of discrete states of consciousness, ways of being and becoming. To glean its wisdom, we must "sample the dish," not simply read the recipes. It is a subject which cannot be exhausted. We must make it our own, even while honoring its tradition. In this way, we have the best of both worlds. Qabalistic traditions and models are validated by modern research everyday. It has a vast capacity to incorporate the entire repertoire of human knowledge and understanding, coordinating through its primary glyph, the Tree of Life.

We can update our models and create revolutions in our own beliefs and thinking, much the same as happens in science. Therefore, we will be drawing on resources from post quantum physics, Jungian and Transpersonal Psychology, and traditional and modern philosophical speculation, such as Buckminster Fuller's Synergetics. I hope you find valuable concepts here for bootstrapping into your own worldview and facilitating your journey toward Union.

*"Ever since the Lord ordained the Creation,
I have been pledged to return to my original home.
People know, from my quest for unity in God,
that I am as anxious as I am eager to merge with him.
I shall bear the blows of destiny as I pursue him,
while I am ferried across to him on the boat of his love.
No one ever found the Lord while living,
O Bahu, except those who found him by dying while living."*

**Sultan Bahu,
17th Century Sufi saint, Punjab, India**

THE SYNERGETIC QABALA

The premise of Synergetic Qabala is based on the fact that manifesting form is essentially energetic. Form is not other than force, and force is often indistinguishable from form. Forces interacting in dynamic stabilization are essentially, therefore, synergetic. The right and left Pillars of the Tree of Life are in a state of dynamic tension, as well as other polarities which it embodies. While Synergetic Qabala is essentially a geometrical philosophy, it is not a sterile number mysticism, but a theosophical approach to the unfathomable mysteries of Qabala and its essentially mystical orientation.

The Tree of Life is a model of the universe that describes energy's behavior and also has the ability to shape our thinking. Synergetics describes the actual underlying geometry of subatomic structure. Here we employ nature's own coordinate system, the geometry nature uses for self-organization --the tetrahedron. There is a relationship between geometry and number which is intrinsic to the spheres and geometry of the Tree of Life. It defines the philosophical universe of Qabala. Explorations in this geometry are covered elsewhere in "The Synergetic Qabala."

The ancient system of the Qabala may best be described as a mystical theosophy, an effective guide for understanding ourselves and our relationship to the universe. It provides a cohesive worldview which is consistent with the findings of modern physics, psychology, and philosophical thought. It provides not only a philosophy, but a Way of life. It is a mystical discipline which requires an active spiritual practice for realization.

As in the case of physics, there are two main branches of Qabala. The first is speculative or Theoretical Qabala and the second is Practical Qabala which concerns the application of its principles through theurgic magic and/or mystical meditation. It is a complex system of symbols and principles for developing the inner potential of human nature, leading to the stage of conscious service to the divine powers at the source of all creation. Though often spelled many ways, we employ the simplest transliteration of QBL, as Qabala (ka-ba-la).

Though associated with the Hebrew, and later Hermetic philosophers, the roots of Qabala possibly originated in Egypt. The Western occult tradition attributes it to Hermes Trismegistus, or Thoth (Egyptian inventor of writing, astronomy, and mathematics). These teachings belong to ancient Egyptian mystery traditions that predate Plato and the Bible, with treatises on ancient cosmology and sacred psychology.

The Hermetic tradition enjoyed a revival when Marsilio Ficino translated a bundle of ancient Egyptian manuscripts with the collective name of the *Hermetica* (1463). The *Hermetica* has been called the fountainhead of Western spirituality, the motherlode of all later esoteric and metaphysical systems. Here we find the suggestion that mankind is a hybrid of human and divine elements. Human nature is potential divinity, or "Godseed." Hermetics opened the way to independent spiritual seeking--spontaneous God contact--in the West. It suggests the possibility of transhumanization, and the divine mission of cocreation.

Egyptian religion is the prototype and source of mankind's interest in seeking immortality. It is the source of mystical teachings on reincarnation, magic, healing, the mysteries and the rudiments of sciences such as astronomy and chemistry. The other primary source of mythic material comes from Sumeria with its stories of God-men, the Great Flood, the creation of Adam, and the nature of deep time (*Enuma Elish*) and the Cosmos. They developed a rich culture, including the first recorded kingship, libraries, and systems of measurement, and sacred geometry. The Zodiac developed from Mesopotamian astronomy.

Early Jewish initiates believed Qabala's mysteries were first taught by God to a school of angels. According to legend, the angels in turn transmitted it to Adam after the Fall in an attempt to help humanity regain its balance. These mythic images suggest a Mesopotamian origin for these doctrines which is lost in the mists of prehistory. Remember, the Hebrew patriarch Abraham began his spiritual journey away from paganism toward monotheism in the Mesopotamian city of Ur, (in the heart of the ancient Sumeria, where recorded history, culture, and modern technology began).

We can use the Qabala today as a guide for our personal growth, both psychological and spiritual. Qabala helps us get in conscious contact with latent or hidden aspects of our deep mind, collective inheritance, and Source. The imagery and phenomenology of Qabala is well documented. The universe is an emanation or flowing forth of Godhead, the primal Source It is an expression of the dynamic fullness of divine Life.

This plenum or matrix is the source of divine sparks who plunge into the long process of involution or descent through the planes into manifestation. They eventually undergo an evolution in which new and infinitely differentiated aspects of the original, unmanifest potentiality of the Godhead comes to expression. Ascent up the central column of the Tree of Life is the mystic's path to spiritual awakening and absorption. The Source can be experienced directly and discovered within us. This universal paradigm correlates with all mystical traditions. It is the very ground of our self-awareness.

The qabalistic Universe is a spatially conceived cosmos divided into higher and lower worlds or heavenly spheres of influence. Qabala is about the relationship of the One to the Many, and the Many to the One; all are conceived as active aspects of Living Deity and their dynamic interrelations. It describes a vast panoply of involution and evolution. It is an immense network of embedded symbolism and arcane lore, which begins with a cosmology, (a scenario about how the universe and humanity came into being; the patterns of nature in relation to the moral and psychological aspects of human behavior).

The qabalistic Genesis begins with the emanation of *Ain Soph*, "supreme wisdom," the Godhead as pure light-filled creative intelligence, source of all manifestation. The Limitless Light flows out into the 10 Spheres of the Tree of Life down through the Four Worlds of Creation: Archetypal (divine), Causal (mental), Astral (emotional), and Physical. Emanation means that God sent forth a portion of his own essence into the manifestation, rather than creating a separate reality. This cosmic pattern or design reflects the divine order, the pervasive design of the world. **The succession of numbers 1 through 10 symbolizes and is, in fact, identical with the emanation of the manifest Universe. The 22 letters of the Hebrew alphabet contain and create the secret structure of all things. The cosmic process is an unfolding of the mystical name of God. Each letter corresponds with a path on the Tree of Life, and functions as a mystical "gateway" to its experience.**

Though originally an oral tradition, written philosophical doctrines can be traced to the 3rd through 13th centuries. The foundational text of written Qabala, the *Sephir Yetzirah*, 'The Book of Formation' is based on alphanumeric mysticism. It describes how God created the manifest universe by means of letter/numbers which are the foundation of all things. The letters are part of 'one body,' the alphabet which is an extension of God's own being.

All created things, made by means of the letters, are also parts of the one body which is God. Contemplation of and meditation on these Hebrew letter/numbers is fundamental to accessing discrete mystical states. Mystical understanding of this divine Unity is the first concern of qabalism. This is part of the origin of the power of the Word or Logos in the crossroads cultures of the Middle East. In ancient Egypt the specific organ of creation was Ptah's mouth, "*which named all things.*"

Like the descending emanations from the divine source, the soul leaves its home in Godhead and descends into physical form, where its redemption comes through seeking that from which it originated. Thus, Qabala is a Path of Return to the pristine state, but with an experiential legacy.

This legacy comes from "dying while living," a metaphor for the daily "death" to the outer world in mystical meditation. Ultimately Qabala is a solitary pursuit, but one best conducted with an experienced guide. Remember, no teacher can take you any further than they have been, and there are real psychological and spiritual dangers in the realm of the collective unconscious.

Not everyone is naturally equipped to discriminate subtle tricks of the mind (mental imbalance, hallucinations, delusions, ego inflations, flights of fancy) from authentic spiritual insight. True mystical experience, like scientifically conducted experiments, is repeatable and reproducible. It is approximately the same for all practitioners, everywhere, in all times.

The same is not true for what psychologists call "magical thinking," which is a pre-rational, rather than transrational state, characterized by a plethora of superstitions and often paranoid ideations. Much of so-called New Age thought is characterized by these romanticized superstitions and faulty conclusions based on sporadic results from unsystematic, idiosyncratic rites and practices.

We may be well-intentioned when we embark on self-directed studies, but this method can take you no further than the Self, where many magicians make the mistake of setting themselves up as an ersatz God and worshipping their own willfulness. Is not setting oneself up as one's own God the ultimate folly, and the mistake which turns the adept into a Black Magician, deifying his own personality?

We must abandon our narcissism to take up the quest for archetypal origin. It involves personal sacrifice and ordeals. Four factors show the difference between someone who has creative fantasies and someone who is only spinning neurotic nonsense: originality, consistency, intensity, and subtlety.

Though the roots of magic and schizophrenic fantasy spring from the same source, they are not synonymous. Magic is a counterphobic attitude, the transition from passivity to activity. In fantasy, realistic action does not follow; it is a substitute for healthy, pro-active behavior. The ego is weak or totally absent, engaging in fruitless attempts at restitution.

True aspirants show continuity of devotion to God, not self-aggrandizement. One learns how to navigate in the imaginal realm--an *as if* reality--without taking it literally. We learn to become absorbed in the Divine without mistaking our spiritual awakening for de facto personal deification. The attitude is one of "Not my will but Thine be done." It is the spirit of submission and selfless service to the Divine Will.

Reports of angels and demons are commonplace in Qabalistic literature. Once again, this speaks of a Mesopotamian origin or subsequent influence. The crossroads cultures of the Mediterranean and Middle East influenced one another's philosophies.

In late antiquity there was a mingling of Gnostic, Neoplatonic, the ancient Hebrew Merkabah tradition, and magical speculation with Babylonian notions of angelic, demonic, and divine powers. This influenced the development of mystical lore. This co-mingling (syncretism) had long been established by the time the central text of Qabalism, the *Zohar* was written in 13th century Spain.

In terms of Jungian psychology, the angels seem to correspond with inner guides or wisdom figures, while the demons are analogous to psychological complexes. Qabalistic speculation asserts that angelic guardians and demons can block one's progress to ascent. In many ways these "entities from other dimensions" represent different aspects of the human psyche--forms of our higher and lower selves.

Psychologically, we know that imbalance and neurosis are blocks to our growth, self-defeating behaviors. Angels can be seen as transpersonal resources, while demons manifest within us as autonomous subpersonalities with their own agenda, not necessarily in synch with our personalities goals.

Somewhere in between common angels and demons comes the notion of the *daemon*, genius, or Holy Guardian Angel--a personal inner guide which appears as synchronicities, inspiration, creativity, intuitive knowing, or directly as a personified figure for dialogical exchange. Angels are messengers which mediate between the divine and the human.

The angel instructs and inspires, draws forth and nurtures our talents. We connect with our personal essence and self-expression. It can be a guardian of the threshold of the mysteries, harsh taskmaster or the source of seemingly infinite creative expression. But, once summoned, it will not be ignored without peril. Attainment of "Knowledge and Conversation" with this singular Angel is the primary operation of elementary theurgic magick, and is central to further progress and transcendence.

The purpose of the Qabala (QBL) is to help us experience the Mysteries directly through personal encounter, both inwardly and outwardly. It is no mere study, but an applied philosophy. The transformative lessons of the Qabala come through life experiences and consciousness journeys. It is visceral and emotional, as well as mental. It is a perspective on life that is actively immersed in the mythic as well as personal worlds. The adept has a foot in, or walks between both worlds.

The doctrine of Qabala is based on the premise that God created mankind in his [their] own image. The Creation is attributed to the Elohim, male/female deities acting as agents of the supreme God. There is a hierarchy of hyperdimensional entities which inhabit the various subtle planes of the universe. Each of the classes of angels has a specific relationship and duties toward mankind. They are all in service to the self-revealing dynamic God of religious experience. An existing God means a manifest, revealed and related God.

The guiding axiom of the Creation is "**As Above, So Below.**" This Hermetic axiom means that there is an archetypal identity between divinity and mankind, mankind and the Universe. This intimates that mankind can achieve a "cosmic consciousness," since "we are that." We can "receive" this knowledge or revealed Truth directly from the Source, through QBL which literally means "to receive."

There are six major principles of the Qabala:

*** The cosmos is a Unity, with all aspects in interrelation. It is a wholistic worldview.**

*** The forces of creation represent an eternal interplay between an active force and a passive one; polarity (positive and negative charge, male/female, yin/yang, holding the tension of the opposites).**

*** The human individual is a microcosm of the universe; we come to know the universe through ourselves, and ourselves through cosmic principles.**

*** In daily life we are attuned to only one state of consciousness among many. This is the culturally programmed trance state known as ordinary consciousness, or consensus reality.**

*** We can access multiple states of consciousness, including universal or cosmic consciousness through systematic application of concentration and meditation, by the grace of God. Careful preparation is necessary.**

*** To achieve such transcendent states of consciousness various specific practices and techniques are utilized.**

The main concern of the practicing Qabalist lies in the applications of its teachings to his own life. In other words, we are interested in psychological and spiritual growth with a greater understanding of Universal principles. In Qabala we find many mysteries and techniques for enlightenment. Like any system of theosophy, the Qabala's purpose is to account for humanity's relation to the Divine, and to create a personal, living relationship with that divinity.

The main tools (or methods) applied by the Qabalist include concentration, visualization, ritual, meditation, and contemplation of the Tree of Life. The circuit of this "Tree" is the most important symbol in the Qabala, and posits a series of "heavens" (or discrete yet synergetic states of consciousness) which can be accessed by the aspirant. This Tree describes the descent of creative energy into manifestation, (in a primordial move God begins to turn outwards, to unfold, to exist), and the Path of Return to divine existence. The downward arc of phenomenal creation is answered by an ascending arc of evolving consciousness. The Tree of Life represents the soul of mankind and the essence of the Universe. It is the guiding model for the homeward-bound soul; a consciousness map for the inner journey back to the Limitless Light.

This glyph, which consists of 10 Spheres and 22 Paths, has long been associated with the Way of Initiation. Qabala is a mystery school whose secrets are only transmitted orally and experientially. Because these secrets require maturity, deep commitment and personal experience, and God's grace, they are always "safe" from the profane. The dilettante or dabbler will never "get it." It requires "being there."

The Tree is a compendium of symbolism describing all ways of being and becoming; of forms, images, and ideas. It is a system of correspondences, associating diverse symbolism such as inner experiences, planetary attributions, the Tarot, gods and goddesses, plants, jewels, animals, elements, alchemical operations, etc.

Pathworking is a technical term from the Western mystery tradition. It is a method of using imaginal processes to get actual experience. It is a course of meditations which leads to the awakening of inner potentials or psychic effects, and produces outer effects in the form of synchronistic events, challenges, or growth. It is a means of conscious self-discovery and self-actualization, unfolding our innate essence, "true self".

In meditation the Qabalist concentrates on the Tree of Life and observes certain relationships. When we concentrate on one of the Tree's symbols, our mind contacts a cosmic force and completes a transformative circuit with Universal Mind. A new aspect of the collective unconscious is made available to our conscious minds. The transpersonal becomes personal and finite as it manifests within us. The practice of this meditation eventually leads the student up the paths toward spiritual fulfillment and union with the Limitless Light.

The application of qabalistic principles, practical Qabala, has always been called magic. It supercedes the more primal, shamanic type of magic with theurgy. Its aim is religious or spiritual, rather than personalistic ends, such as healing. It changes consciousness progressively, not regressively. It leads to objective self-knowledge. There is no loss of consciousness to lower trance states, but an enhancement.

Through syncretism (the cross-cultural melding of religious ideas), Qabala became more than a system of Jewish mysticism. It is the basis of the Western Occult Tradition and Hermetic Philosophy. Practical Qabalists use the teachings to transform their lives, using many of the techniques adopted by modern psychology. In fact, many of the ancient mystic arts were the traditional equivalents of contemporary science.

If you embark on a self-directed program of growth, how do you know how to program your transformations? How will you achieve a balanced or equilibrated growth pattern, making sure your rational and emotional selves mature at a harmonious rate? Who or what will be your guide? How will you avoid overemphasizing your strong points, and how can you identify your psychological blind spots, or guide yourself through your own fears?

Both Jungian psychology and the qabalistic teachings include a depth analysis of the personality, and its subsequent reintegration on a higher level of organization. It means the deconstruction of the rigid old ego, its liquification, and subsequent spiritual rebirth. This requires maturity, and both disciplines recommend waiting until after age 40 to begin in earnest. Before this age outer activities such as career and family often take rightful precedence. But many must begin sooner because they are called to the Path early. Both systems employ the study of symbolism and archetypes, creative visualizations, guided imagery, journal work, and meditation. Both seek the actualization of an integrated personality, known as self-realization.

However, Qabala transcends the realm of psychology and the mind; it seeks to use the trained psyche or soul as a vehicle for God-realization. Hence, its emphasis on purification and discipline of the mind and body in service to the soul. This is the task of mystical meditation, whose goal is beyond the realm of the mind. The transpersonal goal is valued more highly than the personal sacrifice which is a condition of success in this endeavor. Yet Qabala is a "householder's yoga" which need not take us away from worldly life and our duties.

We can integrate both ancient qabalistic and modern psychological teachings into our daily lives. Qabala adapts to the continuing changes of contemporary society since it is not a dogmatic, historic curiosity whose mysteries are frozen in antiquity. Rather, it is a living science of the soul, an evolving system of spiritual development accessible to anyone with a desire for higher knowledge and depth experience.

The Qabala is a blueprint of a holistic lifestyle. It is a way to tie your various studies together, relating them to each other, and enabling you to understand each more completely. It is also a useful guide and objective measure of your personal growth.

Dion Fortune defines Qabala as *"an attempt to reduce to diagrammatic form every force and factor in the manifested universe and the soul of man; to correlate them to one another and reveal them spread out as a map so the relative positions between them can be seen and the relations between them traced. . . a compendium of science, psychology, philosophy and theology."* We might add that the Qabala encodes a maximum amount of information in a minimum number of graphic elements, i.e. spheres, paths, number/letters, and colors. It is a universal code.

Israel Regardie calls the Qabala, *"a trustworthy guide leading to a comprehension of both the Universe and one's own Self."* From Gareth Knight we hear, *"A practical method for the interrelations of various systems of symbols."* For example, if you know one symbol system, say astrology, you can readily translate it over into another, such as gods and goddesses, by means of the Tree of Life.

Qabala, as a system of attaining direct religious experience, has been called a step-ladder of spiritual growth, the Ladder of Lights. It may also be used as a study of comparative religions, with their goals mapped at the various stations. W.E. Butler termed it *"a method of using the mind in a practical and constantly widening consideration of the Universal soul of man."* The methods of QBL require that the mind be tamed and trained and its lower desires subjugated to the higher Will.

One of my favorite (slightly outdated) metaphors likens the Qabala to a filing cabinet which contains the Universe. It functions as a filing cabinet for mental concepts, giving a place for everything within the 32 files of the Tree. This data base can be used as a retrieval system, not only to contact the information you've stored there, but also that which is warehoused there from the collective unconscious. Through it, we connect with a vast spiritual heritage, that of previous practitioners of QBL. It brings us in touch with experiences similar to those who have gone before us on this Way.

Regardie states that, *"the art of using our filing cabinet arrangement brings home to us the common nature (or essence) of certain things, the essential difference between others, and the inevitable connection of all things. Moreover, and this is extremely important, by the acquisition of an understanding of any one system of mystical philosophy or religion, one automatically acquires, when relating that comprehension to the Tree of Life, an understanding of every system. So that ultimately, by a species of association of impersonal and abstract idead, one gradually equilibrates the whole of one's own mental structure and obtains a simple view of the incalculably vast complexity of the universe."*

From the Qabalist's perspective, equilibrium is the basis of the work. Qabala functions as an ancient general systems, theory, allowing us to relate that which is apparently separate. Serious students make a careful study of the attributes of the Tree and commit them to memory. They function automatically as mnemonic devices to stimulate synergetic perception of reality.

Jung alleged that there are gods within each illness or dis-ease we experience. Each archetype or godform has its own corresponding pathologies. When we realize that our identities are composed of various complexes (or subpersonalities) and realize that there are different mental and spiritual spaces, we are already engaged in some form of Qabala. The Tree of Life is a map to these consciousness states, and their balancing forces.

In depth psychology we find modern terms for these states of consciousness. In ancient texts we find the names for these spaces and techniques to contact or enter them. The map of inner consciousness unites the soul with the Universe. We move through this map, up the Ladder of Lights by means of the process of progressive identification with higher states, and disidentification with lower ones. We don't lose the lower levels, but bring them into a symphonic relationship with the higher ones. This is the spiritual approach to healing dis-ease.

The Tree of Life, as a graphic representation of the creation, leads to the communion of the mundane, conscious self with both the subconscious and superconscious Self. The subconscious includes the body with its virtual, subatomic (quantum), atomic, molecular, and genetic organization, autonomic functions, and the personal unconscious of forgotten or repressed desires and memories--the psychophysical. The superconscious is the spiritual self or the god-within.

As with all good road maps, the Tree of Life helps guide you to your destination, but the map is not the territory. In the case of this map, problem solving, obtaining goals, and spiritual experience are the ultimate destinations. Goal setting is a positive thing; without goals we flounder. This is the basis of becoming a "seeker," and then an initiate. Initiation is only the beginning of the process. The imparted teaching must be applied. The ego can initially do those things which lead to its own transcendence, but in the higher stages progress comes through God's Grace.

The Tree has various directional coordinates connecting the spheres, called "paths." The paths are transitional stages while the spheres themselves may be considered discrete states of consciousness or archetypal modes of Being, rather than Becoming. Each of the 22 paths has a series of exercises that strengthen, prepare, and test the body, emotions, mind, and spirit. A student of the Qabala does "pathworking" for spiritual growth.

There are two major divisions to the study of the Tree of Life. The first way to approach it is philosophical. The doctrine of the Qabala includes an elaborate conception of the birth of the universe, or a cosmology. It outlines

detailed hierarchies of entities controlling the various inner realms which lie between the mundane sphere of the earth and the abode of God, as unmanifest Reality. This "blueprint of the Universe" may be studied, and contemplated or meditated upon. Recent investigations reveal that the pattern of the Tree is implicit in the formation of all atomic elements (see The Diamond Body). It is the geometrical basis of natural philosophy.

Once we are familiar with the basic concepts we have the option of approaching the Tree from a practical, experiential perspective. Here the information we learned through study is put into applied practice. This application has been called "magic" from the earliest times, from the same root as Magi, the Mesopotamian wise men, priests and astronomers. Astrology and magic were invented and developed in ancient Mesopotamia.

In contemporary mystical terms, it primarily indicates the building up of multi-sensory mental images or impressions. Sometimes we must resort to sensory stimulation to engrain or reinforce these symbolic images. This is one value of ceremony or ritual: to set up a system for evoking psychosensory subliminal responses which can transform the personality.

The most basic use of the Qabala in our daily living is as a touchstone for solving our personal problems and gaining a transpersonal perspective which transcends our mundane life. Do your actions and choices create more karma? Do they take you closer or further away from your spiritual objectives? The effect of discrimination and better choices is therapeutic for the personality and healing for the soul. It promotes healthy self-esteem and personal integrity. It increases compassion, wisdom, and understanding.

When the fragmentation in our personality begins to heal, we experience rebirth as a more integrated personality. Once we have addressed our major psychological conflicts, the mind becomes calm enough to begin meditation. Those who have mastered this technique are enlightened sages, called masters. They describe the mind as a veil covering and encumbering the soul.

This mind is seen as tied in a knot with the soul. Therefore, whatever the mind does, the soul is dragged along. If the mind is taken outside, willy-nilly by the senses, soul is scattered in phenomena, *maya*, or illusion. If the attention goes within--to the Eye Center in meditation--soul can collect and ascend to higher regions. The mind is necessary for the soul to express itself on material planes just as a diving suit is necessary for any prolonged stay underwater.

The goal of many meditation schools is Universal Mind, or Brahm. But these schools may not speak of soul, per se, although they do address its phenomena. The Tree of Life shows the dominion of mind terminating at The Abyss.

The upper one-third of the Tree--the Supernal Triad--supercedes Universal Mind. It exists in an altogether different dimension, an archetypal dimension beyond even subtle manifestation. Masters speak of entering this realm in their meditations, once the soul is freed from the mind. But your model or worldview must include the possibility of Reality beyond Universal Mind, or you won't even seek it.

Qabala describes four discrete aspects of the soul:

- 1) GUPH, the material or physical body;
- 2) NEPHESH, the desire body, instinctual nature, psychosexual self;
- 3) RUACH, the mental body of personality including memory, will, imagination, and reason;
- 4) NESCHAMAH, the soul unfettered by its mingling with the mind. A pure spark of divinity which has the capacity to merge back into Godhead.

Neschamah manifests in the life of the self-realized individual. In fact, the realization is that one is indeed this being of pure light, "I AM THAT."

THE TREE OF LIFE & DEPTH PSYCHOLOGY

We can use the Tree as a technology for connecting with Higher Power, however, we comprehend that notion or force. Using the modern language of psychology (language of the soul) as a level of communication, we can elucidate each sphere in terms of Jungian archetypes, and the various myths associated with that sphere. Briefly, we can make the following associations:

#10 MALKUTH: The Seeker. Can be associated with the initiation of the process of individuation or coming-to-wholeness. It is not the process itself, but the starting point. This sphere is also associated with the central nervous system and brain as the physical plane seat of consciousness. It is an aspect of personal consciousness as well as the personal unconscious. Jung speaks of psychosomatic disorders, ideomotor responses, and the archetype of the Persona or social mask;

the archetype of the Shadow is our potential both for evil and un-lived good; the archetype of the Double is our immortal counterpart. Mythic correspondences of the earthy sphere include Demeter/Persephone, earth mother and maiden bride; Gaia, primal matter; Pan, the nature god; and Hestia, goddess of the hearth, the center. Simple counseling and supportive therapy are appropriate at this phase. It means the end of denial and acknowledgement of the problem.

#9 YESOD: The Dreamer. Corresponds with the moon and 'lunar' consciousness. Also known as the Astral Plane, the realm of waking and sleeping dreams, hypnosis, and twilight imagery. The level of metaphorical perception as contrasted with literal interpretation or "acting out" of Malkuth. Psychosexual, linked to the ego, or emotional concept of self-identity as personal and unique. Lunar archetypes include the Great Mother, White Goddess, and Virgin Goddesses. Jungian archetype is the Syzygy, or anima/animus (contrasexual aspects of self) as it relates to our love interests.

Goddesses include Isis, Artemis, Athena, and Psyche; they relate either directly to the moon or the woman's mysteries of cyclic death and rebirth, or transformation of consciousness in the crucible of the emotions. This is the level of the subconscious mind and instinctual nature; passions (gland central station). Dreamwork is appropriate therapy for this sphere; psychologies which address this level include psychoanalysis, psychodrama, transactional analysis, reality therapy, ego psychology, and dreamhealing.

#8 HOD: The Thinker. Cultivation of this sphere brings about a rational approach to the world. Mental concepts. We learn to approach our problems in a rational manner, and so make effective decisions based on a true understanding of the issues involved, critical thinking. Corresponds with Jung's synchronicity concept of acausal yet meaningful coincidence. Analogous to Mercury, plane of intellect.

Archetypes include Hermes, the alchemical Mercurius, the Trickster, and 'spirit,' as well as certain aspects of Eros as son/lover. Also the Puer Aeternus ("eternal youth"); those who remain too long in adolescent psychology; adult child syndrome; associated with strong unconscious attachment to the Mother (actual or symbolic), much like Eros held for his mother, Aphrodite.

Positive traits are spontaneity and openness to change. Hermes is a god of prudence, cunning, shrewdness and sagacity; invented alphabet, mathematics, astronomy, weights and measure. A study of the psychological types of personality is effective for a rational approach to the diversity of the human race. Hermeneutics and analytical psychologies correspond.

#7 NETZACH: The Lover. A higher aspect of the emotions which includes aesthetics and the establishment of a personal set of values and ideals based on your own personal experience and inner meaning. Must be balanced with the previous sphere for perfect equilibrium and further access. The realm of

divination and oracles; the reflective mirror of the creative imagination. Associated with the planet and goddess Aphrodite.

The archetype of the *puella* or "eternal girl" is a negative or faulty relationship to the father-world. Cinderella complex. A depth understanding of the feeling function as described in Jungian psychology is useful here to move from an overly dependent (codependent) attitude. Love and victory are its qualities. Mythemes relating to this level include those of Aphrodite, Circe; Orpheus; Tristan and Iseult; Guinevere and Lancelot; Heloise and Abelard.

Therapies for the HOD/NETZACH level connect us with our feelings as well as thoughts and process, release, or transform. This is the level of inner child world which comes prior to spiritual rebirth; known as "original pain" work. Polarity Therapy, Bioenergetics, Rogerian Therapy, Gestalt Therapy, Existential Analysis, Logotherapy and Humanistic Psychology.

#6 TIPHARETH: The Initiate. The central sphere of the Tree allows a harmonizing of the reasoning faculty with the feelings. It permits a rational evaluation of the worth of relationships and situations, not the emotions which are due to the activation of a complex. The abstract level of the higher mind can be developed through symbolism based on the power of the imaginative function.

This is the sphere of the superconscious, and it forms the link between the spiritual nature of man and his lower self. It is the principle of integration. It is the goal of the Invocation of the Holy Guardian Angel in Magick; the Jungian Self. Known as Beauty, this is the sphere of self-realization. It comes spontaneously and uncontrollably in its emergent stages, then stabilizes over time, punctuated by peak experiences (as defined by Maslow).

This is the level of Transpersonal Psychology. There is a shift from therapy toward spiritual discipline--notably meditation. The beginning phases are marked by alpha bliss and inspiration. Its spiritual experience is the sense of rebirth. Its psychological models include "self-actualization" and the concept of high well-being. Among its archetypal expressions we find hero/heroine; the divine or magickal child; the dynamics of the puer/senex (or puells/wise old woman) whose positive manifestations appear in the well-balanced personality; and the mana personality or wounded healer.

Important solar myths include those of Ra, Osiris, Apollo, Mithras, Christ, Attis and Dionysus. Other myths associated here are the divine marriage of Eros (Hod) and Psyche (younger Aphrodite, Netzach), and the story of Ulysses (Odysseus) with its quest to return to his original home (the theme of wounding, scaring, and healing).

This sphere forms the heart of the Collective Unconscious or transpersonal bands of the psyche. The therapies which address this depth level include Jung's Analytical Psychology, Personal Mythology, Psychosynthesis, and the works of Abraham Maslow and Progoff's Process Meditation. To integrate this level is to

transcend the realm of traditional psychology and enter that of esoteric religion or mysticism.

In Tiphareth, you contact the archetype of the Self, or Holy Guardian Angel through an I-Thou relationship--a personalized dialogical relationship. It is an inner guiding principle. We are still within the realm of the divine Imagination, not the Clear Light. It is experienced as a transpersonal power which transcends the ego, expanding your sense of "self" beyond that of mere ego personality. This is the level of knowing the nature of your own awareness. The transcendent function is a reconciling "third" which emerges from the unconscious after the conflicting opposites have been consciously differentiated and the tension between them held.

The Self is our inherent guiding principle, if we but listen to it. It is the central archetype of the psyche. The Self is the integrative and transformative center within the psyche from which dreams, visions, and other inspirations originate. It is characterized by the union of opposites such as light and dark, male and female, good and bad. Symbols of the Self express the psychological process of coming to wholeness, and it is the essence of most spiritual experience. The Self represents the fullest extension and potential of an individual, and provides transcendent experiences which come from beyond one's own personal powers by divine grace.

Symbols of the Self include the God-man, or "son of God," the Royal Marriage or divine union; the Philosopher's Stone of alchemy, the Divine Child, the snake eating its tail, the butterfly, the ring, and the tapestry. The self also manifests as synchronicity, or meaningful coincidence, sexual and spiritual ecstasy and absolute clarity. Other symbols include the mandala or magic circle, the temple, treasure, book, gift, bridge, star, seeds, eggs, rainbow, lit candle, and weddings.

The glyph of the Tree of Life gives a firm basis for a study of the nature of man. It is a very ancient mystical symbol which represents the ten Archetypal Ideas or Energies that are the manifestation of the Unknowable Mysteries. By developing in ourselves the psychological counterparts of these energies, we can become re-integrated with our Real Self, and know our true destiny.

Each sphere has ascribed to it a different aspect of the Self which is most closely related to the functioning of the energy in that sphere. They are closely linked and this means that a development of one characteristic will produce an effect in the other. The overall emphasis is that of balance. By identifying the different aspects of our psychological nature in this way, it is also possible to see how existing forms of psychotherapy and other growth experiences can be aligned to various paths on the Tree, according to the functions they utilize, and the spheres which are being developed.

Within each of us are the essentials for the maximization of our psychological and spiritual potential. Yet even those of us who recognize the potentials within ourselves and aspire to realize them, still need an effective means of transformation. One requirement is a form of training which enables the aspirant

to recognize, select and direct the will effectively to life's underlying archetypal realities.

To be able to identify these underlying archetypes, in action, we must have a means for classifying them, and dis-identifying from them. We cannot identify an archetype when we are in unconscious identification with it. If we can detach from it--disidentify--we can identify it as a sub- or superpersonality, rather than our personal self. This is the way to combat archetypal invasion.

The archetypes we are concerned with in Qabala are by no means all the possible archetypes which may subsist either in the collective unconscious or Universal Mind. But they are the essential seven which pertain to magical or mystical evolution, indeed all that pertains to human life. Adding to these another three, we have all that pertains to the universe both outer and inner, both cosmic and microcosmic, as seen by humankind. Speaking both physically and metaphysically, we can perceive only those phenomena which we have the faculties to perceive.

These ten archetypal sources of power correspond to the 10 spheres of the Tree. Since we cannot apprehend them directly, happily there is another way of proceeding. This is the Way which magical and mystical practices have ever followed.

Each of the spheres has its counterpart within each one of us; and that counterpart is also a focal point for the power of the sphere in question. We can, therefore, work with these counterparts within ourselves--and for the greatest effectiveness this working involves the body as well as psyche--to gain a living relationship with the powers of these archetypes.

The main qabalistic exercise for awakening and balancing the powers of the Spheres is known as the Middle Pillar Exercise. It is a means of imaginably "bringing in light." It harmonizes our being on the four levels: physical, emotional, mental, and spiritual. The exercise is first enacted with the body, like a ritual, to engrain it firmly in visceral and kinesthetic consciousness. Later, you need only visualize your astral body going through the motions, since it will be "second nature."

This exercise is totally safe from the psychological perspective, since it aims toward balanced growth. To work thus, by image and enactment, by calling forth within the self the effect which is to be produced in the outer world--this, from the earliest times has been the method of priest and magician, and most recently experiential psychologies.

The Middle Pillar Exercise associates the spheres of the Tree with the human body. Kether is visualized as radiant white light above the head. Chokmah is the Third Eye; Binah is at the throat; Tiphareth glows brilliant yellow like the sun in the heart; Chesed and Geburah are left and right shoulders, respectively; Yesod is a violet sphere at the genitals; and Malkuth centers where the feet meet the earth.

THE COSMIC TREE

By animating the Tree within our psychophysical structure we identify with the Anthropos, the primordial cosmic Being. It unites our finite nature with the Universal consciousness. We learn firsthand that we are not separate from that, but one with it in our deepest essence.

In the diagram of the Tree of Life, the highest sphere Kether is the primal and unconditioned source of all existence. It precipitates from the three "negative veils of existence." In physics, this is virtual or scalar energy, the stress energy of the vacuum potential.

Kether is the initial point of positive spiritual energy in our universe, the First Cause, in whatever manner one conceives it (a sort of White Whole). It is also, to the individual person, that particular Divine Flame which is at once the source and center of one's being.

Next, and proceeding from this primal Cause, come the two great spiritual polarities designated respectively as the Supernal Father (Yang)--creative force in action--and the Supernal Mother (Yin)--formative force in action, giving viability to, but also necessarily in some manner constricting, the energies of the Father.

To the depths of the psyche, these Supernal Parents are represented by the high archetypes of Animus and Anima, in their most exalted aspects. Lesser images of them are made manifest to the less profound levels of the personality. They may be clothed in the cultural bias of a wise old man or psychic wise woman, or with an individual bias may appear as the object of your affection in the archetype is contaminated with personal projections that more appropriately correspond with Yesod.

These top three Spheres are vital to understanding and using the Tree as a whole, although we do no magical work directly with them. They lie beyond the reach of the mind and its power to actualize our potential. The Third Sphere, that of the Supernal Mother, has however another and more accessible identity as the sphere of Saturn, the highest of the traditional planetary spheres. The power of the Mother, who is both bright and dark (as the Qabalists knew long before Freud discovered her ambivalence), is enthroned as it were behind the figure of Saturn who is ruler of primeval opulence and fecundity and of the barren rocks.

Saturn, Jupiter, Mars, Sol, Mercury, Venus, and Luna: these, the seven traditional luminaries of astrology are represented by the third through ninth spheres. Their qabalistic characters are not entirely identical with their astrological influences, although Qabalistic and astrological understanding usefully supplement one another; but the difference need not detain us here. The three outer planets are considered higher octaves of these potencies (Uranus=Mercury; Neptune=Luna;

Pluto=Mars). The tenth and lowest sphere represents this planer Earth, or microcosmically the physical body. In either case it is seen as the recipient of the influences of all the other spheres. The receptive "Bride of the Universe."

If you know something of the quality of the planets in astrology, you already have a foothold in the Qabalistic system. Beginning with the 10th or bottom sphere, which corresponds with the qualities of Earth, the other correspond as follows: Yesod=#9 the Moon; Hod=#8 Mercury; Netzach=#7 Venus; Tiphareth=#6 the Sun; Geburah=#5 Mars; Chesed=#4 Jupiter; Binah=#3 Saturn; Chokmah=#2 Uraus; Kether=#1 spiritual aspects of Neptune (Alternatively, Chokmah is the Wheel of the Zodiac; Kether, the First Swirlings).

The humanistic or psychological meaning of these associations is as follows:

* **Yesod/Luna:** Bio-psychic or psychosexual functions and feeling instinct responses. Survival Instincts. Adaptation to life experiences and the provision of the self with nourishment, protection and assistance. Moon symbolizes cyclic time, and death-rebirth energy. Also, action taken to bring about actualization of solar purpose through establishment of relationships and maintenance of self as an individual. Lunar principle enables one to adapt, develop and mature within the area defined by Saturn. Lunation cycle.

* **Hod/Mercury:** The principles of rationality, interchange, association, relatedness, communication, translation, interpretation. Adoption of techniques and the use of knowledge and skill to function in an effective manner. The intellect, reason and tonal quality of the person. Represents fluidic mind-thinking, logical capacity as well as magical or nervous force, i.e. *prana, chi*.

* **Netzach/Venus:** Establishment of values and ideals through inner meaning. All attempts to reach the center and partake in communion with one's self and others. Aesthetics and the establishment of a pattern of appreciation and set of values and ideals. Expression of internal experiences.

* **Tiphareth/Sun:** Principle of Beauty, harmonization, equilibration, integration. Center and power of Self. The person's purpose and direction in life. Principle of self-actualization and centering, one's True Nature. The person's total self is sustained through the vital force of spiritual consciousness.

* **Geburah/Mars:** A manifestation of initiative, assertion, aggression, activity or will. The centrifugal force active within experience. All forms of outwardly directed activity. How you begin and maintain things. Power or Might. Force that demolishes all forms and ideas when their term of usefulness and healthy life is done. Symbolizes not so much a fixed state of things, as an act, a further passage and transition of potentiality into actuality. The warrior-consciousness.

* **Chesed/Jupiter:** The principle of compassion, mercy, preservation, increase, compensation, expansion and assimilation. The process of individual assimilation of the social consciousness. Realm of ethics and morals. The urge to be a self-sustaining entity consciously participating within the social realm. The

establishment of a larger frame of reference and the power to grow through cooperation with experience. Dharma or the individual power of right action. Philosopher/king; Renaissance person.

* **Binah/Saturn:** The True Self, or Anima; liberated soul cleansed of all traces of the mind. The principle form as definition for the purpose of individuation through evolution. Principle of Understanding; *Shakti* or *Shekinah*, Maya, Isis; the substantive vehicle of every possible phenomena, physical or mental, just as Chokmah is the essence of consciousness.

* **Chokmah/Uranus:** The True Will, spiritual energy or libido, creative genius, essence of consciousness. Transformation of the power of transformation and the urge to go beyond the area defined by Saturn. Wisdom. The vital energizing element of existence--pure Spirit or *Purusha*; the basic reality underlying all manifestations of consciousness. The Word or Logos.

* **Kether/Neptune:** Liberation; universalization; release of self. Master soul. Highest inspiration. Destruction and dissolution of antiquated forms. Source or root of all physicality and consciousness. The Divine Flame in the microcosm, the primary Cause, the Crown, the Monad (the one indivisible and absolute consciousness thrilling throughout every particle and infinitesimal point in the manifested universe in Space.

We can train ourselves to be able to attune to the various spheres, at will. That is, we can learn to induce in ourselves the magical state of consciousness of each (at least the lower seven). Our first objective in doing this is to familiarize ourselves with the primary characteristics of each sphere. This will strengthen the counterpart of each of the powers within the depths of your psyche. This is nourishing and increases your personal potential, and at the same time ensures the balanced progress of your psychological and spiritual development.

Having strengthened these archetypal counterparts and enhanced your awareness of them, and having learned to attune yourself readily to the powers of the spheres, you will be able to draw upon the mighty resources of one or another of those powers as you require, either in psychophysical, psychosexual, and psychological exercises, rituals, meditation, or daily life.

The Qabala is thus a system of relationships among mystical symbols which can be used to open access to the hidden reaches of the mind--beyond the frontiers of reason. Qabala gives us the means to penetrate the meaning behind symbolism, and pass through its interdimensional gates.

It could be regarded as the mystical process in reverse. A natural mystic will have visions by what he calls "the Grace of God" and then attempt to write down his experience in symbolism or analogy. He seeks the nearest approximate metaphors in the language of the mind. The Qabala, by a study of symbolism and archetypes, helps the Qabalist to break through to the reality that the mystic has attempted to describe.

Universal symbolism is more or less immutable in basic significance. The symbolism of mystical man includes the birth mysticism of origins, the heroic battles of the mysticism of love and rebirth, and the mysteries of death and the afterlife. On the Tree of Life, these are all coordinated by the central sphere, Tiphareth, the Sun. It symbolizes the rosy dawn of illumination after crossing the realm of the stars and the moon. Numerical symbolism is shown in the essential 3-ness of the triangle, the Three-In-One of Divinity; the thesis, antithesis and synthesis of Hegelian philosophy; the possible modes of manifestation of force--active, passive and equilibrated. The Sun is the center of a system, source of light, sustainer of life and is a symbol of Deity, etc.

The Tree of Life is waiting to share its fruits with us if we but partake. It is the source of spiritual nourishment. May you eat hearty and enjoy the savor of the One Taste.

*Love bade me welcome; yet my soul drew back,
Guilty of dust and sin.
But quick-eyed Love, observing me grow slack
From my first entrance in,
Drew nearer to me, sweetly questioning
If I lacked anything.
'A guest,' I answered, 'worthy to be here.'
Love said, 'You shall be he.'
'I the unkind, ungrateful? Ah, my dear,
I cannot look on Thee.'
Love took my hand, and smiling did reply,
'Who made the eyes but I?'
'Truth Lord, but I have marred them;
Let my shame go where it doth deserve.'
'And know you not,' says Love, 'who bore the blame?'
'My dear, then, I will serve.'
'You must sit down,' says Love, 'and taste my meat:'
So I did sit and eat.*

THE AURIC KEY

(SYNDEX SYNERGETICS SYNOPSIS)

By Iona Miller, c1999

"Your cyclic synchronographing work clarifies and simplifies this whole matter to an epochal degree. At any rate, your work fills me with joy. Would you be willing to have me publish this work in another edition of SYNERGETICS with full credit to you?"

Buckminster Fuller to Bob Marshall, 1981

"...the powers of human reason could not be limited to any accepted prearranged system of formalized rules. What Godel showed was how to transcend any such system of rules, as long as those rules themselves could be trusted."

Roger Penrose

"Mandalogs 2520 and 108"

Syndex I & II are about the spiritual and universal beauty of numbers. They reflect the order and beauty of nature, but also of psyche. According to Jung, number unifies the physical and psychic (as in "realm of the psyche", not fortunetelling) worlds through synchronicity. Jung's basic ideas about the unity of knowledge and existence are in principle synonymous with the Platonic tradition, alchemy, Qabala and Gnosticism. Plato treated the end product of the evolution of mathematical concepts, (a fixed system of idealized objects), as an independent beginning point of the evolution of the "world of things." This concrete form of philosophy was determined by the nature of Greek mathematics.

These philosophies seek to reconcile the actual condition with a hypothetical distant ideal, which expansively incorporates both personal and universal dimensions. It is an inward-oriented epistemology. By intuitive perception we can consciously reiterate the laws of Nature and mind which are equivalent to the archetypes themselves. Belief in the essential aspect of the mathematical as a real world, a "last reality" underlies the surprising efficiency of mathematics in the natural sciences and technology.

But are numbers really abstract entities existing independently of the human mind? What is the nature of mathematical truth, and how is it translated into mathematical knowledge? If it exists in another "ideal world", how can we know anything at all about the subject-matter of mathematics? What collective criteria determines the nature, terms and rules of this world?

In the Jungian view, numbers (like other archetypes of the collective unconscious) are contents and patterns of behavior which are not personally acquired in experience but are inborn. The Platonic Forms are the objects of knowledge, which is regarded as innate. They can emerge dynamically as well as imagistically. The essential nature of the Forms is dual: unity and multiplicity, finitude and infinitude. "The One" is the origin of Forms in the same way that the psyche is the origin of the archetypes.

Because they form a primary conceptual language, numbers have heavily influenced the development of culture, philosophy and myth as well as sciences such as cosmology. 'Number is All' was the Pythagorean motto. Numbers were symbols representing cosmic principles. The whole philosophy of numbers came from distinctions created by the primordial division of the One into multiplicity. Because of their archetypal essence, their mode of articulation is essentially mythic and radically symbolic.

Mathematics, by the very nature of its method, is an essentially Platonic pursuit. Mathematicians treat the objects of their investigations as real objects in a hypostasized space, *as if* they existed independently in some pure world of their own. Thus, they reason that the amount of prime numbers is "infinite." Discussing the amount of prime numbers, mathematicians believe that they are discussing objects as real as collections of things in their everyday life.

We use numbers casually and rigorously as a language to order space. Since ancient times, their archetypal dynamics have been the foundation of philosophy, religious, and artistic thought. Patterns of dynamic energy in numbers reflect patterns of nature--the order of the universe. Whether they actually *form* the basis of the universe is the subject of ongoing debate among many schools of mathematicians. The qualitative distinctions we make between phenomena are fundamentally numerical. We still don't know why the universe appears to follow mathematical laws. However, as Hilbert has suggested, we do know that the idea of the Infinite deviates significantly from the situation in the physical Universe.

Are numbers and functions the inventions of mathematicians, or do they exist independently of us? Just because a mathematical object can possibly exist doesn't mean it actually *does* exist. Yet, mathematicians imagine they are talking about real objects, when they may be talking about stabilized concepts. The new direction in the philosophy of mathematics is a "quasi-empirical approach that treats mathematics as just another messy experimental science." A partially unconscious process of idealization ends in the stable concept of numbers, points, lines, spheres.

When working in geometry, a mathematician does not investigate the relations of real things. He investigates some idealized, fixed notion of these relations. This notion is subjectively treated as "reality" without any fundamental reality behind it. It can, therefore, arguably be considered art as well as science. In practice, mathematicians jump to conclusions, and after the jump has been made begin the labor of proving the theorem or constructing a coherent theory. This involves subconscious reasoning, tenacity, focus, judgement, concentration, elementary intuition, free association, and conceptual visualization.

Some say mathematics is a purely human construct, an artifact of our nervous systems and culture. Others attest that even chimps and infants are hard-wired by evolution for arithmetic to deal with real objects in the real world. Numbers are not Platonic ideals but neurological creations. Integers, like colors, are artifacts of our sensory processing mechanisms. Dehaene traces the arithmetical model to the inferior parietal cortex. This poorly understood location is where visual, auditory, tactile signals, and language processing converge. Mathematics, or at least mathematical notation, is another human language. It also appears to be the language of nature, and therefore physical reality. Of the

infinite range of mathematical creations, scientists keep those that help explain and predict reality.

The concept of natural numbers is a fixed model, an idealization of quantitative relations which ends in stable concepts of numbers. The dynamics of those numbers are described in number theory. Number theory, one of the oldest branches of pure mathematics, concerns elementary properties of primes, divisibility among integers, the existence of greatest common divisors, the study of specific families of numbers, simple recurrent relations, factorization, and more. Syndex addresses these aspects with easy to state conjectures which can be understood and observed in graphics without any particular mathematical training.

Mathematical Platonism concerns the investigation of fixed or self-contained models. The Platonic Idea or Form is essentially an unchangeable form. As symbols, numbers express the particular in the universal, the eternal in the finite. They express the ordering function of their archetypal nature. The Neoplatonists assumed an a priori structure of knowledge grounded in archetypal forms and directed toward a unification of the ultimate principle of "the One" with the diverse phenomena of "the Many." This could also apply to the number field.

We contend that the Holotomes are such self-contained models of holistic, self-reflective, finite portions of the number continuum. Holotomes are geometrically symmetrical, modular unities, based on the minimal numbers divisible by the the maximal factors of division. Each holotome adds an additional factor of divisibility to its circular unity. All base digits are captured by the number 2520.

[2520 Mandalog]

Every subsequent holotome retains a copy of the initial data plus an additional factor. Each holotome contains a rational section of a complete cycle. In these geometrical entities, the prime numbers are distributed in perfect radial symmetry within the context of every holotome. Such closed loops of causation are 'objective,' i.e. considered legitimate objects of scientific scrutiny.

Number and geometry are two ways of expressing the same set of ratios or relationships. The Exemplary 9/11 Basewave (Cycloflex) is also a synergetic, dynamic representation of objective closed loops of causation. They can not only be described, but also graphically displayed. This is a reflexive +4, -4 ambidirectional base wave with a ninth null event, (as per Buckminster Fuller), forming a series of octaves running through the continuum.

This octave is a cyclic function. This base wave can be faithfully mapped into a single coherent syntactic time frame. The base wave is highlighted by palindromes and transpalindromes (the reverse identity of any number over a single digit, i.e. 16 - 61). Syntactic objects, which clearly exist represent similarly "real" objects--objects of investigation.

Syndex is a method of mapping number structure and dynamic, synergetic behavior making number theory visibly coherent It geometrically paraphrases the elements of numeric progression. Syndex reveals the self-reflexive, synergetic properties of the base-10 natural number continuum or field. It simply exists at the level of nodes and mappings in the Syndex diagrams.

Syndex graphically displays formerly undiscovered symmetries in the natural number sequence and distribution of primes. It is based on a series of circular unities (self-contained objects), the results of prime number multiplexing, from whose factors cascade the whole panoply of ancient "sacred numbers" of many diverse cultures.

These sacred numbers come from the ancient wisdom traditions, including those of Sumeria, Babylonia, Egypt, the Bible, Plato, Pythagoras, ancient India, Stonehenge, the Mayans, and Qabala. Their importance to human culture echoes down to us from the past, not in any occult way, but by disclosing an ancient number canon that conceals and reveals inherent rhythms in the base-10 continuum. It reveals a synergetic relationship between number and geometry, which can be displayed graphically and easily understood even by the nonmathematical.

These circularities are based on prime number multiplexing. Within each circular number wheel, the primes are dispersed in rational, symmetrical deployment. This mandalic science helps us visualize facts about dynamic aspects of the interaction of numbers and their families. This fact remains undiscovered in classical number theory, and is discussed under the rubric of the prime number enigma.

The Auric Key to this enigma is the rediscovery of the original program of the alphanumeric system of notation and the fundamental platform of general science, the history of which began with horizon-based astronomy and cosmology in Sumeria. The Auric Key excavates many vital properties of numbers.

"Bob and Iona's Adventures in SUM AREA"

Classical cultures are characterized by certain basic ideas, of which metrology is foremost. Ancient metrology was a system of interlinked measures, numeration, astronomical cycles, and geodetic standards. We can find the most often cited numbers of ancient metrology extrapolating out of a certain numerical sequence, (The Holotomic Sequence).

We begin with the question of why some unknown and ancient geometer selected 360 degrees for dividing the celestial sphere and the circle. The division of 360 by 12 produced one of the first historical cosmologies--the Zodiac. The basis of this standard of circular unity can be deduced.

360 is divisible by all eight base digits except the number 7. To include 7 as a divisor, the prime circular module must be raised to 2520, the Auric Key, the lowest number divisible by all base digits. From this clue, we can destrapolate and extrapolate an essential sequence, a family of numbers.

It turns out that 360 is but one in a strategic series of circular unities based on prime number multiplexing. Numbers 2, 3, 5, 7, 11, and 13 are the first primes. By starting with 6 (the first perfect number) and multiplying by the primes in their natural order, we get the sequence 12, 24, 72, 360, 2520, 27720, 360360, 6126120, etc. Each of these numbers forms a geometrical entity, a circular unity, (Holotome). These numbers just happen to be the exact sequence of minimal sums that accomodate the maximal amount of factors of division. Their synergetic qualities have remained unnoticed in classical number theory.

This minimalism is reflected in Syndex number theory. The first concern of Syndex method is to encode the maximum information expressed through minimal graphic elements. Therefore, we employ correspondences between numbers, colors, and frequencies of divisibility to integrate the system.

The number 2520 is the Auric Key. It, *not* 360, is the first number divisible by all nine base digits. It is exactly twice the number 1260, a number referred to cabalistically five times in the Book of Revelations (12:6 and 12:4). It is half of the number 5040, which figures prominently in Plato's "Laws" regarding his ideal city/state.

This number 2520, more than 360, captures nature's cyclic behaviors. And the graphic number wheel (synchrograph or mandalog) based on this number reverses to form a mirror image of itself at the midpoint of 1260. The real key involves the sequence in which prime numbers naturally occur in the base-10 continuum.

This synergetic effect is demonstrated by multiplying the third and fourth Holotomes together: $72 \times 360 = 25920$, a number given for the Precession of the Equinoxes in Sumerian cuneiform records. In Sumeria, mathematics was based on a sexagesimal system (60s) with a decimal substrate (10s). The Sumerian *sar* was

based on multiples of 36, 360, 3600; it was known as the number of the Universe ($36 \times 10 = 360$). Imagine a circle for space of 360 degrees \times 60 minutes \times 60 seconds = 1,296,000 seconds.

The real key to this system involves the sequence in which prime numbers naturally occur in the base-10 continuum:

$72 \times 360 = 25920$ divided by 2 = 12960; divided by 3 = 8640; divided by 4 = 6480; divided by 6 = 4320. $72 + 360 = 432$.

The precessional number, 25920, can also be arrived at by $432 \times 60 = 25920$, employing the Sumerian sexagesimal system. This number relates directly to ancient Hindu cosmology and divine time measurement as the Ages and *Yugas*. Their numbers (without the cosmological zeros) include 432, 864, 1296, 1728, 4320 for the *Yugas*, and 648, 1296, 1944, 2592, 6480 for the Ages. Both Ages and *Yugas* share the number 1296 (36^2).

The Hindu systems are based on multiples of #108 (3×36), the divine numberword OM, also known as the number of the Universe. The Yugas and Ages can also be generated on multiples of 36. Multiply by 12, 24, 36, and 48 for the Yugas; and 18, 36, 54, and 72 for the Ages.

12960 (half the Precessional cycle) is a numerical basis for astronomical measures and played a role in Plato's mystic symbolism: 12×2160 (Platonic Month) = 25920 (Platonic Year). In all cases, the historical precedent for this system comes from Sumeria, and its ancient cosmology inspired by horizon-based astronomy. These numbers and their importance come from direct observation of the precessional cycle and orbital times of the planets.

Ancient India raised mathematics and astronomy to a fine art. In medieval times, it gave the west its system of so-called Arabic numerals, the base-10 system, place value, and the zero, and created a Renaissance in art and science. It is within this system of mathematical notation that the +4, -4 basewave inherent in the continuum can most easily be seen through the mechanism of palindromes and transpalindromes.

SYNDEX I identifies and demonstrates the various properties of the base-10 number field, such as the symmetrical distribution of prime numbers. The continuum can be viewed as both progressive and regressive, or self-reflexive. The key to the comprehensive analysis of general number behavior is found in the concept of "circular unity." The graphic importance of the Holotomic Sequence is that circular symmetry is being conserved and may be enlisted as the fundamental reference key in the graphic investigations of number behavior. The primes are deployed in symmetrical interface only within these specific Holotomic domains.

Synchrographics regards symmetry as a primary analytical reference, making the Syndex archetypal system of number classes possible. The foundation of this system is palindromes and transpalindromes, yielding 12 classes of number. Palindromes, or binomial reflection numbers are neither purely accidental nor without

significance. Transpalindromes are the reversal of any particular number exceeding a single digit.

Numeronomy, the laws relating to the essential structure and dynamics of number, is a new word for an extremely ancient science. This science, (based on the knowledge that the continuum contains a definite structural order with general laws that describe the nature of that order), has laws that relate to the general behavior of nature itself. Each number has both a geometrical and numerical identity. The outcome of Synchrographics is that numbers speak for themselves through structure and synergetic behavior.

All Syndex mandalogs (number wheels) are the product of the systematic generation of the exact sequence of minimax factorization. They have the perfect retrograde feature by which the patterns generated in the first half of the spiral are reversed at midpoint and are reflected as a mirrored image in the second half of the spiral. Revisioning the number continuum with the concept of simultaneous counterflow yields a more accurate picture. This revisioning is also happening in post-quantum physics under the rubric of quantum backflow.

With large spans of numbers, the complex interrelationships become difficult to visualize without good graphics. Because of the octave nature of the base cycle, there cannot be more than four consecutive transpalindromic pairs in a single symmetrical sequence, regardless of the amount of digits in each individual number. The Holotomic Sequence consists of a series of key numbers or circular unities in the rhythmic wave.

Buckminster Fuller was very excited and "filled with joy" over these revelations, when the Syndex discoveries were shared with him before his death. He wanted to publish them in a subsequent edition of *Synergetics*. And why not, since they shed light on old enigmas. After all, numbers are what they are, not what we wish them to be. They will not do what they cannot do, i.e. show symmetries where none exist.

SYNDEX II is about the process of discovering synergetic, rhythmic symmetries on a graphic enspiralment called Synchrograph C. It is based on the Hindu number of the Universe, 108. On this number wheel, the natural numbers are spiralled 60 times around a radial array of 108 increments to the number 6480. Contemplating the C-Graph over the years has produced several revelations, including the Holotomic Sequence, created by prime number multiplexing, and the exemplary 9/11 wave cycle (a +4, -4 base wave).

On Synchrograph C all the numbers that represent the two Hindu astrocalendaric systems fall in the same zero axis. The sum of the *Yugas* falls at 2/3 of this axis. 6480 divided by 3 = 2160, the Platonic Month; 12 x 2160 = 25920, Platonic Year. On this graph the four-digit palindromic sequence (1881, 2772, 3663, 4554) appears in quadratic array, where only chaos exists in classical number theory.

Jung asserted that number forms the particular element which unites the realms of psyche and matter. It is real in an archetypal, qualitative sense and a quantitative sense, uniting the imaginal and the physically knowable. The psychic dynamics of the concept of number appear archetypally as its "transgressive" aspect in the realm of matter. Numbers above the threshold of consciousness appear as quantitative discontinuities and qualitative individual numbers. But according to the Jungians, in the unconscious they interpermeate and overlap participating in the one continuum that runs through them all.

Thus, we find certain synchronicities in the Syndex numberwheel mandalas, creating metaphysical and empirical harmonies. Certain authentic mathematical structures can originate in the unconscious even though Western number theory has traditionally followed a very different path, using its accepted, formalized rules. On rare occasions graphical architecture combines with the data content to yield a uniquely spectacular graphic. Such entities can be described and admired but there are no compositional principles on how to create that one wonderful graphic in a million.

The ultimate Platonic ideal was that of Beauty. The most beautiful graphics do not traffic with the trivial. Graphical elegance is often found in simplicity of design and complexity of data. Visually attractive graphics also gather their power for content and interpretations beyond the immediate display of some numbers. The best graphics are about the useful and important, about life and death, about the universe.

*** * ***

Click here to go to SYNDEX I: contains more on Synergetics and Qabala, magick, Stonehenge, ancient insight.

The Diamond Body: Buckminster Fuller and the Qabala; N = 50, V = 6; Music of the Spheres; Number and Jung's Transformational Process; The Auric Key; Numeronomy and Synchrographics.

Click here to go to SYNDEX II: number mysticism and alphanumeric writing; cosmic cycles of creation and destruction (*Yugas* and *Ages*); ancient Hindu mathematics & astronomy; mandalog #108; the Sumerian legacy; models of sacred space; milestones in the evolution of the number concept; Syndex number theory; metrology; cosmography.

A SYNERGETIC PERSPECTIVE ON NUMBER DYNAMICS

IN THEORY (NUMERONOMY) & PRACTICE (SYNCHROGRAPHICS)

by Robert Marshall with Iona Miller, copyright, 1998

A GRAPHIC NUMBER THEORY FOR THE MILLENNIUM

Abstract: SYNDEX identifies and demonstrates various properties of the base ten number field, such as the **symmetrical distribution of prime numbers**. The continuum can be viewed as both progressive and regressive. The key to the comprehensive analysis of general number behavior is found in the concept of "circular unity." Synchrographics has been systematically contrived to formally illustrate behavioral patterns that have successfully led to a general understanding of the fundamental elements of the geometrical nature of the base ten system. The graphic importance of the **Holotomic Sequence** is that circular symmetry is being conserved and may be enlisted as the fundamental reference key in the graphic investigation of number behavior. **The primes are deployed in symmetrical interface only within these specific Holotomic domains. Here, the enigma of prime number distribution has been solved.**

Synchrographics regards symmetry as a primary analytical aspect of reference, making the Syndex archetypal system of classes of numbers possible. The foundation of this system is palindromes and transpalindromes, yielding 12 classes of number. Palindromes, or binomial reflection numbers are neither purely accidental nor without significance. Transpalindromes are the reversal of any particular number exceeding a single digit (for example, 16 and 61).

Numeronomy, the laws relating to the essential structure and dynamics of number, is a new word for an extremely ancient science. This science, (based on the knowledge that the continuum contains a definite structural order with general laws that describe the nature of that order), has laws that relate to the general behavior of nature itself. Each number has both a geometrical and numerical

identity. It is the outcome of Synchrographics: numbers speak for themselves through structure and behavior. The first concern of Synchrographics is maximum information expressed via minimal graphic elements. Correspondences, such as those between geometry, numbers, colors, and frequency of divisibility form an integral part of the system.

All **mandalogs** (number wheels) are the product of the systematic generation of the exact sequence of minimax factorization. They have the perfect retrograde feature by which the patterns generated in the first half of the spiral are reversed at midpoint and are reflected as a mirrored image in the second half of the spiral. Comprehending the universal nature of the transpalindromic function of number behavior is not easy. We tend to see the number chain as a unidirectional continuum, which is too linear for a synergetic perspective.

Revisoning the number continuum with the concept of simultaneous counterflow yields a more accurate picture. Remember, this is also happening in Post-quantum Physics under the rubric of **quantum backflow**. With large spans of number, the complex interrelationships become difficult to visualize without good graphics. Because of the octave nature of the base cycle there cannot be more than four consecutive transpalindromic pairs in a single symmetrical sequence, regardless of the amount of digits in each individual number.

We cannot contemplate numeracy without an automatic involvement with geometry. A triangle is an expression of the number three and a square is an expression of number four, i.e. number and geometry are two sides of the same coin. Therefore, Synchrographics was contrived to analyze the geometrical properties of number and conversely the numerical properties of geometry. In the proceedings that will be explained in the text, we discovered the key sequence (**Holotomic Sequence**) which consists of a series of key numbers or circular unities in the rhythmic wave.

Buckminster Fuller was very excited, and "filled with joy" over these revelations, and we hope you will be also. After all, numbers are what they are, not what we wish them to be. They will not do what they cannot do, i.e. show symmetries where none exist. Nor can they hide their inherent qualities forever from the astute devotee. Using a **general systems theory** approach, we employ metaphors from many disciplines to demonstrate how this perspective can be employed in other fields of investigation.

"2520 Mandalog"

DEDICATION

to EROS...

and CHARIS...

Electra...

and Tesla...

ACKNOWLEDGMENTS

R. Buckminster Fuller for his mentorship; Jack Garvey for early attempts at verbal descriptions; Jaime Synder for networking; Vickie Webb for cyber-
ingenuity (graphic support and web page design).

Special thanks to Susanna Abbott for introducing Bob and Iona in the late 70s,
and for her continued moral and graphic support. Susanna also holds the
distinction of being the very first teacher to use Synchrograph C, #108 as a study
tool in her Middle School classes, in the Bay

SYNDEX

TABLE OF CONTENTS

LETTERS FROM R. BUCKMINSTER FULLER

PREFACE

FOREWARD

INTRODUCTION TO GENERAL NUMERONOMY

PART I: SYNDEX in Theory (Numeronomy) & Practice (Synchrographics)

Introduction To General Numeronomy

Syndex Theory and Practice

Base Ten Number Dynamics: Summary

Transpalindromes

PART II: REFLECTAPHORS: INTERDISCIPLINARY ANALOGS

General Systems Theory

Post-Quantum Physics and the 99 Cycloflex

Rhythm: The Music of the Spheres

Number and Jung's Transformational Process

Buckminster Fuller & the Qabala

N = 50, V = 6: A 56-Facet Stonehenge Mandalog

SYNCHROGRAPHICS

PART ONE: SYNCHROGRAPHICS and THE AURIC KEY

PART TWO: HOLOTOMES and THE HOLOTOMIC SEQUENCE

**PART THREE: THE 99 CYCLOFLEX NINELEVEN RETROGRADE
WAVECYCLE**

PART FOUR: THE TRIAXIAL RETROGRADE INTERFACE

CONCLUSION: THE FOUR BECOME ONE SYNDEX PERSPECTIVE

GLOSSARY

BIBLIOGRAPHY

LETTERS FROM R. BUCKMINSTER FULLER

These letters, from R. Buckminster Fuller to Bob Marshall speak of his delight at the discoveries and graphics of Syndex. He found them so intriguing, he wanted to use them in a third revision of Synergetics.

February 11, 1980

Dear Mr. Marshall:

Thank you for your letter and support material on the mandala and the use of prime number 7 in circular unity. As you know, I have a great deal about that in SYNERGETICS number 1, but even more in SYNERGETICS, number 2 on page 460. I couldn't have been more interested in those pictures. The final number which is then the product of all the prime numbers up to 50 which takes care of all the numbers which occur in trigonometry plus the series of second power of all the numbers to fifty are unique and turn around at fifty to return to zero and vice-versa. There is a basic wave running through the second powering of all numbers up to 50 and return(ing) to zero. The wave series (see Column 3, pg. 768, SYN. 1) is 24 integers long. I'm confident that the circle consisting of the 71-integer number shown on page 460 is the number employed by Universe as the comprehensive circular unity by virtue of which all interoperation of all numbers will always come out in whole rational results.

I'm including a xerox of the way in which I arranged that number which discloses considerable symmetry in its componentation.

Warmly, faithfully,

Buckminster Fuller

enc

jb

March 3, 1981

Dear Bob Marshall:

Very vigorous applause your very intelligent, scientifically systematic, synchrograph evolved elucidations binomial symmetries, tantalizing manifestations of which prominently published both SYNERGETICS Volumes 1 and 2, which to me clearly related to several fundamentals: firstly, that number behavior of Universe operates independently of arbitrary modular congruence systems employed by various [sic] societies and cultures of historical humans, secondly, that nature is always operating in her own modular system of four progressively additive, then progressively subtractive event octaves with a ninth null event altogether consisting of an octave nine system, all of which relate physically to two four vertexed-each tetrahedra as the tuned in or tuned out minimum structural experience of Universe; thirdly, as Plato apparently realized long ago that the failure to include the prime number seven in the comprehensive quotient of cyclic unity rendered physiomathematical epistemology eternally baffling. Plato does not say why he is concerned with the number twenty five twenty, but it is easy to discover as the product of the conventional 360 degrees of a circle being multiplied by the prime number 7, the circle's 360 degrees having included the first three primes to wit, two and three and five, wherefore omission of the seven in the inherently octaved pythagorean physical demonstrations of musical note progressing of tensed strings rendered inherently all irrational. The cyclic calculating referenced to the Babylonianly adopted 360 degrees as the comprehensive quotient of nature's cyclic behaviors.

Your cyclic synchrographing work clarifies and simplifies this whole matter to an epochal degree. I am assuming that you have read both volumes of SYNERGETICS, else you would not have sent the exciting three pages of your work to me, which could not have been as easily accomplished--if at all--without the advent of the electronic computer--the number of calculations involved in exploring each intuitive insight being possibly too much to be accomplished in the long hand method of the B.C. world (Before Calculator). [Editor's note: but this is not so, since the whole work was accomplished without calculator or computer]. At any rate, your work fills me with joy. Would you be willing to have me publish this work in another edition of SYNERGETICS with full credit to you?

Faithfully,

Buckminster Fuller

Excerpt from "HOW LITTLE I KNOW" (for the Saturday Review Series: "What Have I Learned?"), by Buckminster Fuller. 1966.

"Tell me -
In five thousand
Written words" -
Equivalent, at my oral rate,
To three quarters of an hour's
discourse)
"What have you learned --
In your life time,"
Said Norman Cousins.
"That ought to be easy," said I.
Three weeks have gone by -

I recall that
Thirty eight years ago
I invented a routine
Somewhat similar to
Muscle development
Accomplished through
A day-by-day lifting
Of progressively heavier weights.

But my new
Intellectual routine
Dealt with the weightless process
Of human thought development
Which subject is
Known to scholars
As *epistemology*.

And I have learned
That such words as Epistemology
Stop most of humanity
From pursuing
Such important considerations
As the development
Of the thought processes.

So my new discipline
Was invented for dealing
Even with the ephemeral

Which word means
Conceptual but weightless --
As is for instance
The concept of **circularity**.

My new strategy required
That on successive days
I ask myself
A progressively larger
And more inclusive question
Which must be answered
Only in terms of
Experience.

Hearsaids, beliefs, axioms,
Superstitions, guesses, opinions
Were and are
All excluded
As answer resources
For playing my particular
Intellectual development game.

However, when lacking
Any possible experience clues
I saw that it was ineffectual
To attempt to answer
Such questions as for instance
"Why I?"
Or
"Why - - -
Anything?"

And because it was my experience
That some individuals
Proved as persistently faithful
In reporting their experiences to me
As were my own senses
The rules of my game permitted
My inclusion of such individuals'
Directly reported experiences

For use in my progressively
Greater and greater
Self-questioned. answering.

PREFACE

*What jubilation bursts out of this sight
Into my senses--now I feel it flowing,
Youthful, a sacred fountain of delight,
Through every nerve, my veins are glowing.
Was it a god that made these symbols be
That sooth my feverish unrest,
Filling with joy my anxious breast,
And with mysterious potency
Make nature's hidden powers around me, manifest?*

*Am I a god? Light grows this page--
In these pure lines my eye can see
Creative nature spread in front of me.
But now I grasp the meaning of the sage:
"The realm of spirits is not far away;
Your mind is closed, your heart is dead.
Rise student, bathe without dismay
In heaven's dawn your mortal head."*

*(HE CONTEMPLATES THE GEOMETRIC DESIGN OF THE
MACROCOSM)*

*All weaves itself into the whole,
Each living in the other's soul.
How heaven's powers climb up and descend.
Passing the golden pails from hand top hand!
Bliss-scented they are winging
Through the sky and earth--their singing
Is ringing through the world.*

FAUST, Goethe

Transpersonal Psychology is seeking to define and explore "mandalic science and education," as a sacred science. According L. E. Thomas of the University of Connecticut: "The tension that lies with any sacred science is the same as that faced by the mystic: in describing the mystical state it is necessary to split unitive experience into the phenomenological and culture. Whatever unitive visions we are given or are able to attain, sacred inquiry must deal with this crucial tension.

Phenomenology refers to the world as perceived by the individual. In the post-modern, constructivist world, there is no assurance that there is an isomorphism (matching) between one's perception and objective Truth-out-there. The way we create our

phenomenal world is through the stories we tell, both to others who we are, and for ourselves to learn who we are. The narrative reality that we create is the construction of our reality.

...Such extreme relativism touches on philosophical solipsism 'there is no reality out there beyond my perception.' As exciting as this position may be, and perhaps needed to move beyond our encrusted practices and traditions, such an epistemological position does not make for viable community life...Culture represents the shared reality of a community. Our narratives are not just soliloquies we recite to ourselves; they are created in dialogue with our fellow story-tellers. If there is no community of others, we are limited to monologue; without dialogue, we literally don't know who we are.

In terms of science, we need community confirmation of our stories, and our creation of meaning. Science requires Popper's check of publicity, so it can be judged by the community of scientists as to its adequacy. And for a MANDALIC SCIENCE, it is required that those who do the judging be adequate to this task...These parameters are also necessary for phenomenology, when it deals with the 'profane' level of science and education. They apply equally to the area of the 'sacred' or 'mandalic' science.

For this sacred science, we would agree with the steps that Reason (1993) has suggested for 'knowing:' Experience, Representation, Understanding and Engagement. Of these four phases, only the third, Understanding, depends primarily on our left brain, rational formulation. The other three draw upon other reservoirs of knowing, from the intuitive to the ecstatic to the kinesthetic.

It is with these other modes of knowing that we must grapple, as we seek to understand and transform human consciousness, through our research and education. And even the cognitive mode of Understanding will require stretching, by means of paradox and non-

linear formulation, if we are to do justice to the demands of a sacred science."

CONCEPTUAL GEOMETRY

In SocioEconomic Synergism, A. Nicholas Frank makes the importance of synergy and synergetics in understanding the Universe and Nature clearer. Conceptual geometry explains the nature of reality (tetrahedral) and the relationships among parts. Synergy is a holistic science.

Synergy is the metaphysical self-organizing order and intelligence that resides in every part and particle of the Universe. Synergy explains the powerful creative process that drives evolution. It explains the **reciprocating**, working principle among components and how two parts or particles joining, can create the more--than the-sum-of-the-parts surplus and the emergence of qualitative gain. Synergy also explains why natural selection favors systems with synergetic economy--doing the most with the least of resources.

The synergetic process provides a rational and logically understandable model by which the Universe was created from seemingly nothing, and evolved to its present complexity.

This model is reproducible in human affairs and we can use it for social transformation toward sustainable human habitation of our planet.

We can trace the roots of the influences shaping western civilization back to the Greek philosophers of more than two millenniums ago. The atomists proposed that one has to deconstruct all things to find the indivisible building block in order to understand nature. At the the opposite end, the holists believed that a system, indeed the universe, has to be understood as a whole, undivided, in order to preserve its holistic quality.

Western culture and science has embraced the atomistic view in near complete ignorance of the teachings of the holists. Steeped in the atomistic mind-set, science and the modern world developed along the reductionist line highly specialized and deeply fragmented.

Nature on the other hand speaks the language of holism or synergism. In the language of synergism every part and particle in the Universe is intelligent--it "knows" its atomistic structure as well as its emergent holistic quality. This cosmic intelligence is what enables simple parts and particles to come together in self-organization to build an evolving and complex Universe.

Science has discovered nearly all the parts and particles of the physical world. We are nearly fluent in the language of reductionism, but we do not speak or understand synergism. We are insufficiently prepared to manage our existence as complex living organisms dependent on a very complex life support system.

The only instrument that can possibly handle this job is our consciousness. And the only tool we know that is capable of rational probing of both physical and conceptual/metaphysical events is the synergetic tetrahedron. Synergetic tetrahedron is an instrument of rational exploration. The synergy code is carried by the physical laws of Nature.

Infinities are self-contradicting, and not natural. Nature has limits and boundaries in all aspects, physical and conceptual (metaphysical). Smallness, largeness, speed, space, time, and everything else has limits.

The cosmic building code, on the other hand, is uniform and unchanging. It is tetrahedral in its conceptual geometry, and while it is able to organize matter, it is metaphysical in essence. The cosmic building code is the synergy code which operates in the physical and metaphysical dimensions. It is a metaphysical wave with reciprocity potential.

The physical world is organized by an order which, by the virtue of its orderliness, is intelligent. Ordered intelligence is a force since it is capable of organizing matter. If it is a force, but not physical, it must function in a metaphysical dimension of its own.

Read this book forward and backward. Like a hologram, all of it is contained within each part, but expressed from a slightly different point of view. The high level of redundancy is required for efficient information transfer -- higher signal to noise ratio.

A picture produced by holography cannot be divided. If it is divided, it jumps back to form the full picture. Divisions or (detail sections) cannot be produced. Even a smaller format shows the whole, more or less brilliantly.

FOREWARD

UNORTHODOXIES: Most mathematicians have had the following experience and those whose activities are somewhat more public have had it often: an unsolicited letter arrives from an unknown individual and contained in the letter is a piece of mathematics of a very sensational nature. The writer claims that he has solved one of the great unsolved mathematical problems...

The writer of such a letter is usually an amateur, with very little training in mathematics. Very often he has a poor understanding of the nature of the problem he is dealing with, and an imperfect notion of just what a mathematical proof is and how it operates.

The writer is usually male, frequently a retired person with leisure to pursue on his mathematics... Very often the correspondent not only 'succeeds' in solving one of the great mathematical unsolvables, but has also found a way to construct an antigravity shield, to interpret the mysteries of the Great Pyramid and of Stonehenge, and is well on his way to producing the Philosopher's Stone. This is no exaggeration.

If the recipient of such a letter answers it, he will generally find himself entangled with a person with whom he cannot communicate scientifically and who exhibits many symptoms of paranoia. One gets to recognize such correspondents on sight, and to leave their letters unanswered, thus unfortunately increasing the paranoia.

Davis and Hersh, The Mathematical Experience (1981)

For the past 30 years I have made an in-depth study of the so-called BASETEN NUMBER CONTINUUM through an innovative system of graphics that is capable of illustrating the interrelationships existing between the chain of number and the elemental aspects of geometry -- specifically that which we call CIRCULAR UNITY.

The beauty of the graphic Syndex Theory is that the proofs are easily seen and understood, even by the nonmathematician. This is not an abstruse backroad of

mathematics, but a graphic description of number laws, which can easily be understood by small children.

Because I have invented my own syntax does not make me a crank. Because I have had some difficulty since new paradigms are not readily embraced in science, does not make me a paranoid to be summarily dismissed. I present no prophecies, no eschatology, no divine number theories (even though commenting on *why* they were so considered). Sometimes, useful new ideas come from highly unlikely sources.

The discipline, called SYNCHROGRAPHICS, has pointed out an exemplary BASEWAVE that occurs through the interaction of square number NINE and the first palindromic prime: ELEVEN.

This exemplary "wave cycle" initially culminates at 99 or 9×11 . It is then referred to as the NINELEVEN CYCLOFLEX:

The first four multiples reverse at 49.5 and go retrograde to 99. The multiples, then, of 99 do the same and so on forever. Thus, we find four forward and four reverse event octaves with a ninth null event, as per the suggestions of R. B. FULLER in SYNERGETICS II, regarding the way nature functions dynamically.

I contend there is absolutely no mathematical error in my findings, which I came upon without the aid of computers. By experimenting with a series of graphic depictions of number arrays, I FOUND THE RATIONAL BASIS OF PRIME NUMBER DISTRIBUTION. These experiments in what I call SYNCHROGRAPHICS lead to the observation of two manifestations:

#1 The sequence of minimal sums that accommodate the maximum amount of consecutive factors, called the HOLOTOMIC SEQUENCE, each of which demonstrate a half positive, half negative symmetrical and harmonious octave CIRCULAR UNITY when expressed in a synchrographic MANDALOG.

#2. A total explanation for the behavior or distribution of PRIME NUMBERS as a totally rational order. This is something most leading math experts consider unlikely. Most current ideas regarding number theory are based on the new science of chaos theory.

At the moment we are in search of a math writer who can help explain and upgrade these renderings. This is (arguably) the most significant discovery in physio-mathematical epistemography (Fuller's term) in the industrial era.

In my correspondence with him, Bucky Fuller assumed that I relied heavily on electronic computation to achieve what I have, but nothing could be further from the truth. That is what makes it so amazing it was not discovered before. My major source of insight has been the graphic enspiralment of two ancient Hindu systems of calendric/astro nature. The first was a spiral of #108, the Hindu

number of Om and the Universe, and basis of the Ages and Yugas. I discovered the 9/11 wave cycle on this Synchrograph C number wheel. The number spiral of Holotome E, (2520), clarifies the essential necessity of the regard of RETROCITY as the primary element in number behavior, as it graphically reveals the reflection sequence.

The HOLOTOMIC SEQUENCE is represented as follows, with the *primes* as mutipliers in their natural order:

TWO TIMES SIX = 12 : A
x 2 = 24 : B
x 3 = 72 : C
x 5 = 360 : D
x 6 = 2520 : E
x 7 = 27720: F
x13 = 360360: G
x17 = 6126120: H
etc...

The growth rate of this sequence will be of great interest to mathematicians. It is seen as slightly deficient in that after the 9th example the number of integers, in a seemingly erratic fashion, skips a number. In this way the tomes slightly shrink as they grow. This suggests a finite end where a number can be reached that will be divisible by all previous numbers: an OMNISYNCHRONISTIC MODULE so to speak. It would be a massive, yet perfect number. Perhaps it is God's unlisted phone number...

The major error in all systems that attempt to analyze the behavioristics of the usually so called baseten system of quantitative notation begins with the confusion of the term "NUMER ONE" with the term "UNITY."

If we regard the term number one as SINGULARITY (as Fuller did) and give this idea no direct analogy to those idea-entities that we refer to as numbers, or those base digits that are divisible into discrete sectors, then we realize that **one is not a number** which leaves us with exactly EIGHT BASE DIGITS: 2, 3, 4, 5, 6, 7, 8, and 9...

The most revolutionary concept in regards to the term UNITY that has been suggested in the past 6000 years of physio- mathematical epistemography is the proposition suggested in the late R. Buckminster Fuller's definition of the term unity as a distinctly plural term. In SYNERGETICS II, there exist two definitions which could suggest an element of paradox or ambiguity but in point of fact denotes that UNITY CAN EXIST AS A SERIES OF DISCRETE CLASSES OF PLURALITY.

QUOTATION A: "Unity is plural and at minimum twofold." This suggests the unification of a pair of singularities...

QUOTATION B: "*Unity is plural and at minimum sixfold.*" This suggests the unification of a harmonious set of a rational interrelationships of whole factor base digits. This involves the classic attitude that six is the first perfect number in that one plus two plus three equals six, or that six is the sum of its first three integers. Even though one is not a number it can still be a part of a true number.

These two definitions of the term unity, even though they seem simplistic are of epochal significance to the syntax of quantitative notation. Without this critical distinction of the different classes of numerical articulation, the true behavior or structure of the numerical continuum cannot be coherently acknowledged in a logical perspective.

The quasi-chaos encountered by those engaged in the theory of numbers or any other form of analyzing the distribution of prime numbers in terms of rational order has usually been an approach based on the belief in a "base wave" in the continuum that would reveal a pattern of relationships between two kinds of number: primes and composites. Also, it was thought, even though not specifically stated, that this hypothetical base wave would manifest as a rhythmic sequence revealed by cataloging sequences as per Neil J. Sloane of Bell A.T. & T. Labs at Murry Hill, New Jersey.

What is missing in the sequence approach which would require symmetry in any kind of proof is that numbers per se have never been properly classified beyond a two-fold system of primes and composites.

The full wave band of number classification (which I tag and clarify with TWELVE GLYPHS in this introduction to SYNDEX) is based upon the idea of the TRANSPALINDROMIC FUNCTION in the continuum of natural number. The validity of this approach to the analysis of number behavior is predicated on the simple observation that all previous studies of number have ignored the fact that any series of diversified entities, real or imaginary, can be viewed as both a graduating series AND a retrograde series. It has been the retrograde aspect of the numeric continuum that has been habitually ignored like many other forms of tradition.

As a special example, #16 is the ONLY 2-digit square, out of 90 candidates, that is a prime number when reversed, (61 is a prime). This we call a retrograde prime square and assign this class with the glyph: .

Altogether there are only TWELVE PERMUTATIONS possible to the ambiclassification of all possible numbers. As we go along, it will become clear that some such system was known in extreme antiquity. The zodiac is but one example.

In regards to prime number behavior this ambidirectional, or transpalindromic system of number regard is essentially mandatory. By regarding the continuum of number in only one direction, number symmetry is compromised.

The other aspect of this system of number classification that requires notice is the fact that SYMMETRY REQUIRES A FINITE COLLECTION IN ORDER TO BE SEEN AT ALL. An open-ended series or infinite collection (a contradiction of terms itself) cannot produce symmetry. Nor can we expect to find symmetry in an arbitrarily chosen collection. **What is needed are discrete levels of finitude.**

This is where the HOLOTOMES come to the rescue. The Holotomes are examples of CIRCULAR UNITY that are non-arbitrary but generated by specific logic contained in the continuum itself. These finite and symmetrical NUMBER MODUALS (dual modules) are generated by the natural order in which the primes occur and represent the minimal numerical magnitudes that accomodate the maximum amount of consecutive divisors.

The series begins by doubling the first perfect number: SIX, which produces 12 as the first true Holotome. Thereafter, we multiply each resultant sum by the next prime in its natural order of occurrence:

HOLOTOMES

Two Times Six = 12 : A

x 2 = 24 : B

x 3 = 72 : C

x 5 = 360 : D

x 7 = 2520 : E

x 11 = 27720: F

x 13 = 360360: G

x 17 = 6126120: H

etc.

Through this process, we produce a sequence of FINITE AND NON-ARBITRARY NUMBER MODUALS that may be represented in a geometrical format that demonstrates the rational and totally symmetrical distribution of PRIME NUMBER ORDER.

For a number of years I was plagued with the paradox of how the Holotomes were connected as a continuum and yet separated as discrete, finite, and symmetrical entities. I finally found the answer to this dilemma which gives me full confidence as the proper solution. It is this phase of the present document that will produce the greatest difficulty in the communication of the final and exquisite answer.

It is the CYCLOFLEX, the EXEMPLARY 99 OCTAVE CYCLE, that produces the continuity while it is the finite nature of each of the Holotomes that produces the discontinuity.

How this occurs is through the same function of cyclooscillating retrocity that creates the warranted paradox.

Each of the first few HOLOTOMES when added to the reverse of their respective numerical sum produces an even sub-multiple of 99:

A: $12 + 21 = 33$: 1/3 of 99

B: $24 + 42 = 66$: 2/3 of 99

C: $72 + 27 = 99$: 3/3 of 99

Therefore by a series of reversals that synchronize the EXEMPLARY 99 CONTINUUM with the finite holotomes, we have both continuity and discontinuity in a non-ambiguous paradox.

The SYNCHROGRAPHS and number structure field patterns will clarify this assertion of a graphic syntax that accomplishes a clarification that words alone cannot provide to the satisfaction of the educated person.

I should further remark on this issue of continuity that Richard Dedekind in his essays on the theory of numbers deals with continuity in conjunction with the straight line. I assume he was referring to a straight line in the Platonic sense of an ideal straight line which, of course does not exist anywhere else but in the mind, allowing that the mind is part of nature.

But the continuity/discontinuity to which I refer is not related to a straight line. To the contrary it relates to cyclations and oscillations which are curvilinear, at least as I contemplate the functions involed in the EXEMPLARY CYCLE and HOLOTOMES.

The continuity/discontinuity of the Holotomes as knots on a string of the EXEMPLARY 99 WAVECYCLE is about the closest I can come to an analogy of the quasi-predicament. After all, you can only do with words what syntax will permit.

And I am not a philosopher but merely a numeronomist (which title is not even honored with a place in the dictionary).

Credit for the concise definition of Unity would include a list of people who have facilitated explication of the AURIC KEY. Most are relatively unknown souls whose names would add nothing to the substance of this material. They will recognize their input wherever it manifests itself. But he who is foremost on such a list has moved on to an alternate space of being.

That specific person of major contribution is the late R. Buckminster Fuller, and the contribution referred to is his duplicate definition of unity as two-fold, sixfold, or plurality. This leads us to recognize that there are at least two classes of unity and therefore more.

The idea of a MAXIMUM UNITY is beyond the boundaries of the concepts dealt with herein, (i.e. THE OMNI- SYNCHRONISTIC MODUAL).

The philosophy of number/geometry has in the past been plagued by the association of One (1) and UNITY, or the regard of ONE as a number (member).

Both Plato and Pythagoras missed this critical distinction between one and unity. This oversight still confuses the number theorist to this later date in history.

One is singularity and two is the nexus (unity) of at least two singularities or what we refer to with the term unity.

The concept of various forms of unity is a crucial aspect of NUMERONOMY.

In *SYNERGETICS II*, I find wandering remnants of Fuller's own confusion with unity and how it relates to the null-concept of "infinity."

Fuller described the closepacking of thirteen spheres of equal diameter as the VECTOR EQUILIBRIUM MATRIX. It is the symmetrical array of twelve spheres around/about a thirteenth nuclear sphere.

This nucleus can be seen as an expression of singularity....The shell of twelve which surrounds this singularity is a symmetrical unification of members that describe the profile of the V.E.M., which is the unification of squares and triangles.

The closepacking of four spheres of equal diameter is a non-nucleated complex which describes the profile of a tetrahedron. In this case we have a symmetrical unity of four spheres about a null-singularity: no nucleus.

Unless these distinctions are observed in our physiomathematical epistemography we will encounter a problem with syntax.

None of the foregoing is to be intended as a criticism of the general syntax of *Synergetics II* but is intended to suggest a reformation of the gospel of synergetic terminology.

I worked in close parallel with Bucky during his final days and the 3rd edition of *Synergetics* was his foremost priority. The mistakes made in *SYNERGETICS I* were corrected in *SYNERGETICS II*, but those made there were never reconciled inasmuch as the manuscript was never completed.

The oversight of primary importance concerns the exact point of turnaround in the numbers "up to fifty," which will be a major item in the present document, which on this crucial account re: number behavior would proxy the missing page of the null-event *SYNERGETICS III*.

It is a brief, simple, logical and necessary step from the concise definition of unity to the epistemographic expression of circular unity and thence to quasi-spherical unity. You will appreciate this once you understand that ideal sphericity is not a feature of universe, which is (or Who is) Nature.

Since my union with the true nature of number came from ecclesiastical, architectural, and astronomical sources in conjunction with a synchronicity of mind, eye, ear, and hand, I can only relay my insights in the language of matter to

which the spirit is blind, mute and without feeling. My home planet is NUMERIA and it will be there in its cremation that my smoke will cover the highest peaks.

I took a perfect sphere and milled a flat surface on the random side which represented a disc which was equal to the radius of the sphere. At what latitude was this circumcism?

If it were not for the centrifugal force vectors of spin, this idea would be valid tool of science.

I've never felt a devotion for money making or ambition for worldly honor. I submit my words and pictures for those who may find their own brand of edification through my price and power.

Find then the things that do not tend to limit your potential towards discovery of some beautiful truth and do not expect any perks that smack of Terra Firma.

Robert Marshall , Master Numeronomist

INTRODUCTION TO GENERAL NUMERONOMY

PART I

SYNDEX

IN THEORY (NUMERONOMY) AND

PRACTICE (SYNCHROGRAPHICS)

INTRODUCTION TO GENERAL NUMERONOMY

SYNDEX: A SYNERGETIC PERSPECTIVE ON NUMBER DYNAMICS

by Robert Marshall with Iona Miller, c1998

"...I would conjecture that the task of future mathematicians will be to collect their characteristics and analyze, when possible, every number in its logical relationship to all others. This research should be undertaken in collaborations with physicists, musicians, and psychologists who are conversant with the empirical facts about the structural characteristics of numbers in different mediums."

M. L. von Franz, Jungian Analyst

NUMBER AND TIME

PRO: *"Unity is plural and at minimum sixfold..."*

R. Buckminster Fuller

SYNERGETICS

CON: [There is a] *"complete waste of time involved in the pursuit of a rational order to the distribution of prime numbers."*

Professor Kline

Harvard Mathematician

ABSTRACT: Syndex Theory is about the intrinsic structural patterns that appear in the baseten continuum of number. A main feature of number theory has been the absence of any noticeable pattern of regularity among prime numbers. Reversal is the key to number law. Prime numbers play a fundamental role in the construction of geometrical form, and in turn of structures. The Holotomic Sequence produces a graphic syntax that displays all the structural intricacies of the continuum of baseten numbers. Syndex theory can graphically show 100% symmetry of prime number distribution within the context of its finite series of geometrical modules. These mandalic modules are the minimal amount of consecutive factors of division. Syndex is not number mysticism, but a non-reductive holistic way of viewing obvious realities about the continuum through "circular unities." Number is not an abstraction in synergetics. Rather, each number has a geometrical identity plus a numerical identity, which is inter-transformative.

"We know that hidden symmetry groups exist in both physics and number theory but we understand very little of how they are related to one another."

Yu I. Manin, Nov., Science 85

THE PUZZLE OF PRIME NUMBERS

Numbers are what they are, not what we wish them to be. They will not do what they cannot do, i.e. show symmetries where none exist. Nor can they hide their inherent qualities forever from the astute devotee.

Well before Euclid's day, mathematicians had listed the first primes, looking for patterns or other clues to their distribution. No particular patterns are immediately evident, except for the obvious one that all primes except 2 are odd numbers (since all larger even numbers have a factor of 2).

But a closer look suggests that the primes seem to be spreading out, or getting scarcer as the numbers grow larger. For instance, there are eight primes between 102 and 120. Further, note the gap of 13 consecutive composite numbers between 113 and 127. There is no such long gap among the first 100 numbers.

(See table of first primes and table of statistical distribution).

Due to inherent difficulties in mathematics and physics, these sciences have adopted the art of modelling as a working strategy. Physical theories are provisional models of reality. Mathematics itself is a model. All physical theories are models. A model should be able at the very least to describe certain phenomena fairly accurately.

A mathematical model is a complete and consistent set of mathematical equations, which may describe some physical, biological, social, or psychological entity...or conceptual entity. We can substitute "structure" for "equations" when working with a non-numerical model.

Some of the purposes for which models are constructed are (1) to obtain answers about what will happen in the physical world; (2) to influence further experimentation or observation; (3) to foster conceptual progress and understanding; (4) to assist the axiomatization of the physical situation; (5) to foster mathematics and the art of making mathematical models.

A model may be a convenient approximation, simplistic or sophisticated. By creating models, or approximations, many researchers and philosophers think they have discovered the keys to the universe. But even if those keys open only a small chamber on the periphery, they can be highly significant in their implications.

The whole object of mathematics is to create order from seeming chaos, to extract structure and invariance from disarray and turmoil. In banishing chaos, we seek pattern, regularity, arrangement, understanding. When it is there, we intuitively "feel it in our bones." We can sense graphic or visual order, pattern, and symmetry in mathematics just as we do in nature.

Among the integers, the prime numbers play a role that is analogous to the elements of chemistry. They are nature's building blocks, but unlike the elements, the list never ends. Euclid proved that there are an infinite number of primes. Classically, the main feature of the list of primes is the absence of any noticeable pattern or regularity.

The attraction of this unsolved mystery of the prime number problem is that we are able to see what is going on long before we can prove it. As in Popper's theory of scientific knowledge, we formulate a "bold conjecture," not likely to be true by accident. Then this conjecture is subjected to the test of numerical calculation. If the test fails to refute the conjecture, it is strengthened--proved so to speak, in the sense of natural science. Prime numbers are the key to the required rate of growth in the Holotomes.

In physics or chemistry, experimental agreement with theory to 8th place accuracy is considered strong confirmation of the theory. The agreement is hardly accidental, therefore, the principle by which the calculation was made must be right.

In Platonism, mathematical objects are considered objectively real. In a certain sense, this is the realist or Platonist philosophy. The regularity which has been predicted and confirmed is not illusory--there is something there which is lawful and regular.

But in another way, Syndex also conforms to the constructivist dogma where genuine mathematics can only be obtained by a finite construction.

THE HOLOTOMIC SEQUENCE OF CIRCULAR UNITIES

Confidence in the orderliness or rationality of the number system underlies all research. This realism is more than convenient; it is indispensable. Proofs are a way of understanding why and how conjectures are true.

A "wave-particle" complementarity theory of the number field reveals a key (here termed THE AURIC KEY) to the orderly, rational distribution of prime numbers. According to Fuller, the occurrence of a basic wave has the significance that despite their discrete nature numbers as integers have wave-like properties. It is a metaphysical wave with reciprocity potential. In fact, there is an abundance of waves occurring on all levels of numbers.

Fuller demonstrates that "...nature is always operating in her own modular system of four progressively additive, then four progressively subtractive event octaves with a ninth null event, altogether constituting an octave nine system..."

REVERSAL is the key to number law. SYNDEX THEORY is about the intrinsic structural patterns that occur in the BASETEN CONTINUUM of number. RETROCITY, as a dynamic of the number continuum, has been ignored by orthodox science.

This study of the BASETEN number continuum through an innovative system of graphics is capable of illustrating the interrelationships existing between the chain of numbers and the elemental aspects of geometry -- specifically CIRCULAR

UNITY. These graphics so excited the late Dr. Fuller that he asked to include them in his planned publication of SYNERGETICS III.

The theoretical aspect of SYNDEX is termed NUMERONOMY; the practice or practical side is contained in the graphic depictions whose creation and employment is known as SYNCHROGRAPHICS.

One of the graphic keys to NUMERONOMY is the TRIAXIAL RETROGRADE INTERFACE. It represents the graphic foundation of the synchronicity between geometry and number and sets the stage for the series of circular unities designated as the HOLOTOMIC SEQUENCE. These geonumerical modules also represent the minimal numerical sums which accommodate the maximum amount of consecutive divisors.

Each of these modules, presented in the form of a spiralic SYNCHROGRAPH, is a half positive, half negative retrograde octave wave cycle and reveals an ideal symmetrical circular unity.

The HOLOTOMIC SEQUENCE begins with the three ambidirectional axes of the TRIAXIAL RETROGRADE INTERFACE. Then by the involvement of prime numbers in their natural order of occurrence, the following series of true circular unities (HOLOTOMES) emerge:

HOLOTOMIC SEQUENCE = HOLOTOMES

The HOLOTOMIC SEQUENCE revolutionizes the science of description by producing a GRAPHIC SYNTAX that involves all of the structural intricacies of the continuum of baseten number.

The scientifically systematic discipline of NUMERONOMY via SYNCHROGRAPHICS establishes a whole new phase in GENERAL SYSTEMS LOGIC. SYNDEX is an ancient yet new wave in the realm of Physiomathematical Epistemography. It deals with a unified series of transfinite idea interactions in a closed loop, (IDEAL SYNTAX), sans paradox.

The AURIC KEY excavates many vital properties of numbers. Its very existence and ultimate form hinges on numbers which occupy space. By arranging numbers in synchrographics, a dynamic number field or matrix is formed. Regarding numbers in terms of matrices or fields is important, and acknowledging that numbers have spatial qualities is vital to fully appreciating their significance.

Prime numbers play a fundamental role in the construction of geometric form, and in turn of structures. These structures are manifested from the microscopic to the macroscopic, and comprise our physical reality. As far as the realization of the implication of numbers is concerned, a knowledge of prime numbers is crucial.

SYNCHROGRAPHICS emerged from the notion that geometry and numbers are interwoven disciplines emerging from a mysterious or unified source. By isolating

basic relations between number and geometry something may be learned about that source.

HOLOTOME E (2520) may be considered the cornerstone to the various MANDALOGS that comprise the AURIC KEY. It reveals the pattern of compound synchronicities that occur in the behavior of the base digits in all their permutations which end at 2520. It graphically shows 100% symmetry of prime number distribution within the context of each Holotome.

The wavecycle begins near the center and spirals outwards, a process which reveals even more inherent symmetry and produces tantalizing rays. There are seven spiral bands, each divided in 360 subsections of circular unity.

(Insert picture, Holotome E synchrograph)

Cycles in numbers can represent dynamic feedback processes, just as discrete numbers can represent "things," entities, or quanta. In the living "journey" of ongoing manifestation the rigid structural elements of number may be considered male (or yang); the complementary, dynamic cycle process (recursion) can be considered female (or yin).

This cyclic process can be demonstrated in the distinction between palindromic and transpalindromic numbers. It can be graphically depicted with minimal elements in a short series of self-reflecting mandalas, revealing the frequencies and harmonies inherent in the natural number sequence, the marvelous in the mundane.

The psychological mechanism that we refer to as the BASETEN concept of quantitative notation, commonly referred to as ordinary number is the ultimate foundation of the science of mathematics which in turn is the solitary foundation

of industrial civilization.

SYNCHROGRAPHICS

Analogs with consciousness reveal the process of psychological transcendence unfolding from the O (circle-zero) of undifferentiated "objective" wholeness which depicts the eternal principle of universe and the inner being, or Self. Wholes can be modeled as circles, cycles, spheres, or hyperspheres. The natural number sequence can lead our consciousness from point, to line, to plane, to multi- and hyper-dimensional representations.

The SYNDEX perspective regarding the geometry of number, (and visa versa, or the interrelationship of plurality and form, including structure), is predicated upon a series of geometrical modules that involve a discrete plurality determined by the natural order of prime number occurrence. These modules, (here designated as HOLOTOMES), are the minimal amount of consecutive factors of division. They

display the progressive and regressive movement of the pilot-wave or pulse inherent in the number sequence.

The various properties of the so-called baseten system of numerical notation have been the objects of serious study, (under differing titles), for many centuries: numerology, number theory, etc. The singular most common element of all such systems is that one cannot contemplate numeracy to any extent without an automatic involvement with geometry. The reason for this is clear: A triangle is an expression of the number three and a square is an expression of the number four, i.e. number and geometry are two sides of the same coin.

Beginning with this simple observation, the discipline of Synchronographics was contrived to analyze the geometrical properties of number and conversely the numerical properties of geometry.

The solution to the question of how to find the most evocative points of synchronicity between the disciplines of quantitative notation and the essential expressions of geometry occurred through an observation of such simplistic proportions that it is a mystery of profound depth that even such masters as Euler and Dedekind (or anyone else, for that matter) did not employ such thinking long ago.

That a synchronetic relationship exists between the so-called baseten system of numerical notation and the fundamental principles of geometry was clearly suggested by Pythagoras in his series of rectangles with whole number commensuration between specified rectangles and their diagonals. The 3:4:5 right angle triangle is the initial example of triplets.

That no clear mathematical progression was found that established a systematic serial law was the catch in all attempts to establish a synchronetic order to the distribution of such triangles of whole number commensuration.

The key to the solution of this problem of Pythagorean triplets is contained in another mathematical enigma, that is, the distribution of prime numbers.

The most elegant and beautiful solution to this pair of classical mathematical mysteries has appeared through an innovative discipline labeled synchronographics which was rediscovered and redeveloped by Marshall over the past thirty years.

Instead of dealing with a series of triangles or diagonally divided rectangles, SYNCHROGRAPHICS deals with a series of spirals that are generated by numerically commensurate sums that are generated **with** the prime numbers beginning with half of the first Pythagorean rectangle.

These sums, the HOLOTOMES, are the actual sequence of minimal numerical factors. The sequence begins with twelve as Holotome A. Its nave, or midpoint, being six, is classically referred to as the first perfect number.

The first synchrograph then, which depicts the initial Holotome is twelvefold (as is the ancient Zodiac) of six positive and six negative symbolic events, and is the first sum divisible by four base digits: 2, 3, 4 and 6.

Doubling HOLOTOME A, we get B or number 24 which is the first number divisible by five base digits: 2, 3, 4, 6, and 8...

From there on we multiply each resultant sum by the next prime number in its natural order of occurrence $24 \times 3 = 72 \times 5 = 360 \times 7 = 2520 \times 11 = 27720$, ad infinitum. Thereby we release the HOLOTOMIC SEQUENCE from obscurity.

I will list here the four pairs of two-digit retroprimes or transpalindromic primes, or reversible primes, to see if I can add any significant enhancement to their importance to the behavior or structure of prime numbers:

13 31; 17 71; 37 73; 79 97 and a fifth pair of near prime composites that act as a latching pair that COMPLETES THE SYMMETRY GROUP WHICH DOVETAILS WITH THE OCTAVE THAT IS FOUR POSITIVE AND FOUR NEGATIVE EVENT IDENTITIES THAT CREATES A CIRCULAR UNITY IN THE 9/11 retrograde wavecycle:

(INSERT TABLE)

A VERY CLEAR AND NATURALLY SYMMETRICAL THREE COLUMN RENDERING OF THIS NUMERICAL LATCHING ORDER EXISTS. The chances of this being an accidental coincidence is as likely as finding an 8000 lb. elephant inside the nose of a mouse. Interesting in view of how the multiples of nine turn retrograde at 49.5.

The same pattern continues with the 3, 4, 5, 6, etc. digit transpalindromic primes which indicates clearly that the progression of prime numbers is totally an orderly and coherent progression with no sign of disorganization, whatever.

Does the Number Seven Produce an Irrational Sequence?

Industrial civilization has been, in effect, dealing with a short deck. 360 (Holotome C) is an example of circular unity which accomodates all of the base digits except number seven. This renders physiomathematical epistomography eternally baffling, at least until SYNDEX is understood.

To the traditional number theorist, SEVEN (7) appears to generate an irrational sequence.

Several years ago, Bob Marshall came to realize that 1428571 repeating is NOT AN IRRATIONAL SEQUENCE, but that any number in this sequence added to the third following number produced nine (9):

Note that the only digits not represented in the seven sequence are 3, 6, and 9, (also no zero).

THIS IN EFFECT IS GRAPHIC PROOF THAT 1428571 is A SIX DIGIT CYCLATION OF TOTAL RATIONAL ORDER.

By the simple expedient of multiplying 360 by prime number seven we get 2520, the very first and very smallest number divisible by ALL EIGHT BASE DIGITS. Remember, singularity or ONE IS NOT A NUMBER. [insert Hebrew character for Aleph] is Aleph, THE FOOL.

When One (singularity) is divided by seven, the resulting decimal .142857 is formed, which is a six-digit cyclation. 3, 6, and 9 are the only base digits missing from this cycle, but they can be accounted for by the observation that it is a six digit cycle. Another way of viewing how 3, 6 and 9 are accounted for is that any digit in this sequence when added to the third following digit produces 9:

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1428571428571428571428571
+ 142857142857142857142857
999999999999999999999999
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SYNDEX THEORY AND PRACTICE

As per M.-L. vonFranz's suggestion in our opening quote, we choose an interdisciplinary, general systems theory approach, finding common patterns of methods employed in a wide range of theories. We can use ontological (the science of reality; that branch of metaphysics which deals with the essential nature, properties and relations of things) and epistemological metaphors ("how we know what we know") from physics, music, and psychology to explore the relationships among numbers. We shall do that here, also adding a fourth art - metaphysics.

However, the primary mode of Syndex transmission, its SYNTAX, is GRAPHIC DEPICTION. Its philosophical basis is minimalism, minimism (maximal information in a minimum number of graphic elements).

From the dawn of history our species has always carefully, thoughtfully, and systematically observed nature and modelled nature. Our general world view, including our attitude to physical and mathematical aspects of basic concepts is very important. The essential truth lies in mathematics. The physical universe is an aggregate of frequencies. Mathematics has penetrated sociology, psychology, and linguistics, as well as many other fields.

*In **Questioning the Millennium**, Stephen Jay Gould says, "My argument for the origin of our fascination with numerical regularity closely parallels my claims about our affinity for dichotomous classification. In part, we latch on to numerical regularity, and seek deep meaning therein, because such order does underlie much of nature's patterning. The pperiodic table, after all, is not an arbitrary human mnemonic, and Newtonian gravity does work by a law of inverse squares. But our search for numerical order, and our overinterpretations, run so far beyond what nature could possibly exemplify, that we can only posit some*

inherent mental bias as a driving force...Our searches for numerical order lead as often to terminal nuttiness as to profound insight."

Without equations there is nothing to talk about. Or, more properly, the mathematics enables us to talk about physical concepts more precisely. Mathematics is a form of language, a very precise form of communication. These extremes usually compliment one another and our thinking process can move back and forth between them. Physical concepts can guide the development of new equations as well as visa versa.

SYNDEX is primarily a form of insight that arises through our attempts to obtain a perception of a deeper nature of reality as a whole. Its imaginative qualities are as important a feature as precise math concepts. Imagination helps further the development of holistic concepts. Even in physics, play and speculation are part of the legitimate process of discovery, and in fact essential to it.

These dynamic connections are a fact of nature provable by experiments; but to explain them philosophically is difficult, or rather complex. Demonstrable evidence cannot be found in a conceptual vacuum, therefore a testable theory must be assumed. Theory is a perspective, a "Way" of seeing.

SYNDEX THEORY assumes along with R. Buckminster Fuller that unity is plural, and also that nature manifests only in a +4, -4 wavecycle with the ninth null event.

If you don't understand this, or you disbelieve it in relation to prime number dynamics, we suggest you temporarily suspend disbelief. If you don't like metaphors go directly to the number proofs and graphics. If you are math phobic, try the metaphors before tackling the math. Hopefully, one of our metaphors will speak to you. Let the experimental facts, as displayed in the graphics, speak for themselves, creating a new frame of reference. These pragmatic, positivistic (what is physically observable is real), operational assumptions suggest a deeper connection.

If nature behaves in certain fundamental ways, we can expect the dynamics of natural number, which describe those processes, to do the same. In seeking greater control over nature and a wider glimpse of cosmos man forges his thoughts into concepts. Among the vital concepts realized so far, number and its chief mode of expression geometry, coupled together, play the most crucial role in man's technological development.

Space and time can be quantified, their mutual relationship described more objectively and less arbitrarily with a firm grasp of geometry and numbers, and the subsequent description of space and time in exact terms, allows us to examine our world more thoroughly and tap the cosmic forces which govern our very lives and future.

Megalithic structures, such as Stonehenge and the Great Pyramid of Cheops, show the great extent to which our ancient ancestors already achieved this,

thousands of years before modern technology. The functions of these and other examples of ancient technology varied from sophisticated calendars and celestial gauges, to temples of worship and dwellings.

One common feature of them all was concise geometry and direct reference to numbers in their very structure and dimensions. Apart from these essential outgrowths of reliable calculating techniques, man has sought to harmonize the systems of mathematical insights into a single whole.

Ancient mathematicians also sought to understand number on their own terms with results which often seem vague or arbitrary to the modern mind. Consider astrology, Qabalism, numerology, etc. In ancient times, numbers were also letters. The continuum was indivisibly ALPHANUMERIC (ref. Hebrew, Greek, and Latin systems, which form the basis of the modern western occult tradition).

But regardless of the conclusions drawn from these ancient systems, geometry and numbers are vital to their inner workings. And despite enormous variances in time, place, and culture, certain numbers recur so often that they cannot be dismissed as coincidence.

Why does Plato relate 5040 to his ideal city-state? Why is 1260 referred to five times in the Book of Revelations, and so prevalent in music theory? Why did the Babylonians base their number system on 60 and have 360 degrees in a circle, when they knew the sun took more than 365 days to complete a yearly cycle? And further, why does 12 abound everywhere from the western zodiac, to calendars and clocks? Why are there 56 Aubrey Holes in the outer circle of Stonehenge? And why is 7 considered a sacred number in many religions? We hope to convincingly, empirically, answer some of these points. Others you may work out for yourself.

The fact that these numbers relate to THE AURIC KEY may be significant. Could it be that the systems from which these numbers derived had a common origin or basis, which is cross-cultural? There is an indication of this, founded on NUMBER LAW in itself, i.e. Numeronomy.

Plato and Pythagoras both dealt with the nature of the perception of reality by using geometry as an aspect of number. Plato taught that there are changeless, eternal forms on which existing things are modeled. "The theory of forms" is the most famous of all Platonic doctrines. **It asserts that any object's true reality is found in its RATIONAL FORM or structure, rather than its material appearance.** Philosophy begins in the sense of wonder coupled with the discipline of reason; its pre-geometric forms describe changes from one state to the next.

THE SYNDEX PERSPECTIVE regarding the geometry of number, and visa versa, or the interrelationship of plurality and form, including structure, is predicated upon a series of geometrical moduals (dual modules) that involve a discrete plurality determined by the natural order of prime number occurrence.

These moduals, designated as HOLOTOMES, are the minimal plural quantities that accomodate the maximum amount of consecutive factors of division.

The two-dimensional representative of HOLOTOME A is a circle divided into 12 radial sections just as the Zodiac divides the celestial sphere into 12 radial constellations of thirty degrees each. Twelve also reflects the 12 Buddhist links in the chain of causality.

The present document provides conclusive proof that this ancient system of a twelvefold classification of primary qualifications was by no means an arbitrarily invented system but a clearly logical discovery of the qualities and quantities of nature's actual scenarios.

The 360 degree cyclation of this archaic celestial roadmap is also both a logical and rational quantity and quality of nature and was by no means arbitrarily determined by the processes of human cognition and conceptualization.

The array of cleavage possibilities that result in the growth of crystals follow structural laws. Likewise, the pre-geometric structural design of the atomic configurations of individual elements also conforms to structural qualities that over the centuries have been identified and labeled according to the systematization of description we know as the alphanumeric principles of notation. Remember, in ancient times letters were numbers, although they never reached a level of universal tabulation fully translatable linguistically.

In a very legitimate sense the revelations contained in this writing provide the means of a basic and universal system of describing the structural and topological characteristics of matter which makes no distinction whatever between inert and organic, dead or living.

The observations to be revealed declare that the universe in its so called "infinite entirety" is a living being only separated from itself by the limits we impose on our imagination, which if not hindered by a misunderstanding of itself has no limits.

Henceforth regarded as the SYNDEX PERSPECTIVE, the present document begins with a graphic gesture which acts as a primal foundation for an IDEAL SYNTAX which, when seen in the light of its own vision, arguably abolishes the two arch-enemies of truth: paradox and chaos. Neither of these can exist in nature, except in the province of language and modelling itself, which of course is a variable aspect of nature.

The graphic gesture just mentioned is entitled the TRIAXIAL RETROGRADE INTERFACE or T.R.I., for short. It differs from the Cartesian XYZ in that it is based on the tetrahedron, rather than cube. The purely imaginary geometrical figure denotes the 3 ambidirectional axes of spatial description. But these are not the XYZ of Cartesian coordinates, but represent a dynamic tertahedral tensegrity.

Altogether, these vectors represent the six minimal ways that one may move in the omnidirectional options of spatial tropism: up/down; right/left; fore/aft.

Since we cannot visit the past by the expedient of walking backwards we must concede that time is not a direction. And since we could not know if everything is expanding as space time passes, we have no reason to regard time as either a direction or dimension.

Time, then, being an empirical assumption based on what we recognize as spatial movement (the past is 3D, at least we remember it that way) is a complete mystery. Due to the nature of human language, specifically the descriptive mechanism of language, time can only be regarded as the duration of whatever scenario we are concerned with at the moment of concern: TIME IS A DURATION OF CONSCIOUSNESS.

Einstein's suggestion that time is the fourth dimension implies that past and future are separated from the here-now by the insertion of a hyphen between space and time. In reality,. these are only words and words always refer to something else. No amount of semantic trickery can change the fact that the cosmos is not constructed of alphanumeric imagery. Only our apprehension and consideration is thus fabricated. It's the old saw: THE MAP IS NOT THE TERRITORY.

The essence we are dealing with is tripolar with three degrees of ambiretrocity -- i.e. the cosmos is 100% omnidirectionally retrogradient, following the third law of thermodynamics.

Even though the enigma of temporality has its only solution at the instant of our personal death we may speculate upon its nature by dismantling a clock and observe the cause of its ticking.

Note that a coil spring loads the escapement mechanism with a reserve of kinetic energy stored up in the elasticity of the spring. If the spring happens to break due to molecular flaw, the universe goes on down the road without it. Time does not depend on how it is measured, but is measured by how it depends....beginningness is absurd in regards to matter.

"Most people believe that time passes. In reality, it stays where it is. The concept of passing time is false, because man, limited to experiencing time only as passing, does not understand that it stays where it is." Dogen, Zen Master.

"To put it differently, we do not live in time, but time lives within us...Space is externalized, objectivated time, time projected outward. Time...is internalized, subjectivated space...Time and space are related to each other as the inside to the outside of the same thing." Lama Govinda.

The universe depends totally upon time which stops when we die. Therefore time is life. The universe is a cyclooscillating complex of events that was never born and can never die.

CIRCULAR UNITY AND THE TRIAXIAL RETROGRADE INTERFACE (T.R.I.)

In thermodynamics, an ideal process is called a reversible process, defined as a change in the state of a system which goes through a continuous succession of equilibrium states.

The full definition/description of circular unity begins first with the definition of the word unity. As defined by R. Buckminster Fuller in *SYNERGETICS II*: "Unity is plural and at minimum sixfold." Circular unity, then, can be graphically demonstrate by a circle divided into six individual but interdependent sections.

The color wheel is a good graphic example of circular unity, and represents six discrete qualities of six individual but interdependent quantities represented by each section of the wheel. A circle divided into six distinct quantities, each with individual but interdependent qualities...i.e. unification of number and geometry.

In that SIX is the sum and/or product of the first three numbers, $1 + 2 + 3$ or $1 \times 2 \times 3$, it contains a harmonious whole number relationship with them, and is thus called the first "perfect number". The first instance of the harmonic synchronization of number and geometry (quantity and quality) occurs in the number six.

However, this prescription for circular unity is two-dimensional. Three pairs are each separated by the centerpoint which has no dimension. In order to formulate a spatial abstraction of circular unity, we draw three lines that interconnect the six face centers of a cube and enclose that cube within a sphere.

Doubling this two dimensional circular unity produces the first true Holotome (A) which is predicated on number twelve. This three dimensional holotome of six positive, and six negative, symmetrical retrograde event identity axes, is then also represented by the closepacking of twelve spheres about a thirteenth nucleus sphere. This produces the dodecahedron, (the primitive non-pi spherical module).

This TRIAXIAL RETROGRADE INTERFACE then, contains the graphic capability to represent a virtual spacetime object. One example found in nature is the primary cleavage planes of crystals.

We invoke the entirety of Dr. Fuller's master work, *SYNERGETICS II* to clarify the preceding remarks.

The following shows the fundamental platform from which the Holotomes evolve:

Perfect number (Unity) = 6 Nave of Holotome A
Doublation produces =12 (Zodiac) or Holotome A
times two =24 Holotome B

times three =72 Holotome C
times five =360 Holotome D
times seven =2520 Holotome E

In this way, circular unity is conserved by the employment of prime numbers only. No redundant multiplexing is done through numbers that contain factors of division as in the case of the factorials.

It is easy to tell, at least with very high probability, whether or not a large integer is a prime. If it is not a prime, then it can be written as a product of two or more factors. For instance the integer 146,527,939,199 is the product of the two primes 1,445,599 and 101,361,401. There are no methods currently known for efficiently determining factors of large nonprime integer.

An important scheme for secret codes, developed in the last decade, relies for its security on the difficulty of factorization. As a result, the U.S. National Security Agency is interested in factoring. The coding scheme has also caused a strong surge of interest among mathematicians in the problem of designing well-defined procedures, or algorithms, to factor integers.

The Holotomes are the minimal numerical magnitudes to accommodate the maximum amount of consecutive factors of division.

WHEN MAPPED OUT IN A CIRCULAR ARRAY, EACH OF THESE MATHEMATICAL ENTITIES PRODUCE A HALF-POSITIVE, HALF-NEGATIVE, SYMMETRICAL RETROGRADE MANDALOG, which represents the GRAPHIC SYNTAX of a Holotome. Here are the graphics of the Holotomic Sequence:

The baseten concept of quantitative notation consists of a sign denoting nothing, 0 (zero), a sign denoting singularity, I (one), and eight other signs denoting eight discrete degrees or ratios of plurality: 2, 3, 4, 5, 6, 7, 8, and 9, altogether representing a cyclic continuity of plural members we call numbers. This continuum must be regarded as an endless series inasmuch as there can be no such idea-entity as a highest or top number. Because of this open-ended nature of numbering this continuum is said to be infinite, that is, without an end.

Because of this infinite quality of the numeric continuum, we cannot speak of number as having a definite structure, however, if we choose to regard any particular numerical event beyond duality, then we have a finite series which is then a closed system. Such a system then contains a definite structure which may be described in words, geometrical structures, graphs, diagrams, etc.

To arbitrarily choose a number (amount) for the purpose of establishing a finite and therefore describable system of numbers will provide only one of very many possible systems and/or structures; (the term "infinite number" is meaningless).

The foregoing proposition contains the reason for the need of a non-arbitrary numerical modal that renders possible a scientifically systematic method of describing members in terms of structure and behavior.

Such non-arbitrary numerical modules now exist. They are called Holotomes: a discrete plural quantum of coherently describable interaction, i.e. a finite unity of a plural componentry.

For those readers who may think that a Holotome is something new, or recently invented, there is indisputable evidence from existing records that clearly indicate that the Sumerians understood the discrete series of Holotomes over 6000 years ago. That their knowledge of the Holotomes was still clearly remembered as late as 1900 years ago is evident in the writings of the New Testament.

The information contained in the ensuing pages is instrument not only to the intrinsic nature of number, but also to the specific way in which number relates to the descriptive mechanisms of human languages, that is, to the exact and actual structure of an ideal, non-paradoxical syntax.

The crux of the descriptive mechanism of language revolves around the Greek prefix QU as in WHO and HOW much (identity and plurality) and of course, Quality and Quantity. This preceded the English prefix WH (as in WHO, WHAT, WHEN, WHERE, WHICH, and WHY). This yields the full sixfold coordinate system of the descriptive mechanism:

- 1 WHO : Identity: person A**
- 2 WHAT : Identity : object E**
- 3 WHEN : Time : duration I**
- 4 WHERE : Space : extension O**
- 5 WHICH : Plurality : number U**
- 6 WHY : Causality: and/or HOW Y**

These relate to eternal questions of our orientation in the cosmos: Who am I? What is the object and source of being, and limitations? When will I die? Where do I come from? Which is my path in life? For what purpose? How am I related to it?

In the table, the six vowels are all accounted for and figure qualitatively in the six primary axes of description. The fact that unity is plural and at minimum sixfold gives added credibility to the concept of the TRIAXIAL RETROGRADE INTERFACE, which is the fundamental paradigm upon which rests the symmetrical unity of the Holotomes.

Marshall asserts that the Sumerian alphabet contained exactly six vowels, three primary and three secondary, which suggests an interesting correspondence between ancient descriptive syntax and the T.R.I. in the color wheel.

These comments supplement the intended meaning of the phrase, "IDEAL SYNTAX," which should clarify the idea that paradox results from unconscious disregard of retrocity in at least one of the three primary axes of qualification.

IDEAL SYNTAX becomes possible through the concept of word contexts that derive from a rational correlation between quantitative notation and geometrical notation. This may be understood as a GRAPHIC SYNTAX.

The sequence of mandalogs that represent the Holotomes is an example of this graphic syntax: a rational arrangement of numbers, words, and geometry, by which to convey information not available to the imperfect literary syntax of modern scientific philosophy or what is otherwise termed physiomathematical epistemography.

When Sir Isaac Newton formulated the third law of motion, he could have been much more general and stated that for every axiom there is an equal and opposite reaxiom. The third law of motion is as much a statement about descriptive language as it is about any intrinsic behavior of physical law. The concept of action and reaction occurring on a straight line is not stated but is unconsciously accepted. We know that in modern dynamics, curves and vectors are fundamental, since spacetime is curvilinear. A vector is a line of force aimed in a known angular direction in respect to an axis of reference. The length of the vector is the product of its mass multiplied by its velocity.

Number is not at all what we think but how we think. Remember, the alphanumerical aspect of language in ancient times.

Language, both oral and written is the result of the ideas evolving from plurality on the neurological level. Civilized culture could not exist without the subliminal notions occurring beneath the words, each, every, any, many, both, all, and either/or, etc.

Up/down, right/left, and front and aft are cognitions that precede conceptions and symbols in the matrix of the mind. Number and geometry are quantity and quality on the prelinguistic level.

The T.R.I. depicts six forward and six reverse quantity quality event scenario data events on the non-semantic level. It is another way of demonstrating that within the context of oral tradition the roots of written language reach in six directions.

An example is the Qabalistic meditation device known as THE CUBE OF SPACE, also known as the Key of the Cosmos. In it, each direction and vector is assigned an alphanumerical glyph from the Hebrew alphabet (See Part Four). The T.R.I. provides conceptual orientation in imaginal space in much the same way. The six directions stem from three ambiconceptual axes of spatial cognition. Time, which we do not directly perceive, is totally conceptual.

Number/geometry is the preverbal mind-scape from which we derive our picture of the so-called real world. The mind's eye sees very differently than in our

familiar three-dimensional world. Geometry lets the inner eye visualize such spaces as if they truly existed.

Mathematics teaches us this art and at the same time protects us from illusions. For to understand these spaces, we must first rely upon the exact symbolism of formulas. Only then can we stand aside and give free reign to our imagination. The most fundamental geometrical concept is the idea of dimension. Number/geometry is the foundation of the conceptual world, not real at all. We perceive plurality without resort to number, just as we perceive qualities without the words that refer to them.

Numbers, letters, and symbols are devices of utility in themselves and are only required to supplement the utility of our legs, arms, hands, fingers, and cerebral activity. Social order can exist without language but language only exists because there is an innate order in our interpersonal concerns.

The archives of antiquity speak of many disciplines predicated on the metrologies peculiar to all successful technological cultures. The number twelve (12) and its multiples stand as an exemplary statement of number utility. They range from the signs of the Zodiac, the labors of Hercules, the hours in the day, the months of the year, the planets of the Sumerian solar system, the stones of Aaron's breastplate, birth stones, the tribes of Israel, the twelve spheres around the 13th nuclear sphere of Fuller's Vector Equilibrium Matrix.

By SYNDEX definition, one is a singularity, not unity, and therefore not a number in the sense that the other eight base numbers are unifications of a plurality of singularities. This misunderstanding was acknowledged in the Qabala by stating that Aleph is the first letter, but it does not count. This story is in accord with the legend of Lord Krishna who lost one of his ten fingers on the last day of creation, but still considers one as a number or digit.

The ten number signs only contain eight true numbers: 2 - 3 - 4 - 5 - 6 - 7 - 8 and 9, as an octave. No transpalindromic sequence can exceed four forward and four reverse number event identities.

Multiples of nine: 18

27

36

45

nave

54

63

72

81

Thus, the retrograde cycle of number is an octave cycle, with a ninth null event, as stated by Bucky Fuller, the first modern number analyst to recognize this crucial aspect of number behavior.

BASE TEN NUMBER DYNAMICS

"Henri Poincare, for instance, says: "Every whole [natural] number is detached from the others, it possesses its own individuality, so to speak; each one of them forms a kind of exception, for which reason also general theorems of number theory are but seldom forthcoming." Nevertheless, this individual aspect of number appears to contain the mysterious factor that enables it to organize psyche and matter jointly."

M.-L. von Franz, Number and Time

"The number one as the first and original number is strictly speaking not a number at all. One as unity and totality exists prior to the awareness of numbers which requires a capacity to distinguish between separate discrete entities. Thus, one symbolically corresponds to the uroboros state prior to creation and the separation of things. Two is the first real number."

Edward Edinger, Ego and Archetype

We consider numbers to be so familiar that we have nothing left to discover about them of any possible interest. But perhaps this is not so. The continuum of base ten number is generally looked upon as a progressive and linear series of cardinal and ordinal numbers. Iterations signify the simple addition of the initial unit to each resulting member encountered in the continuing series of elements known as numbers. The digits 1 - 9 are known as integers or numerals. Of course, multiples of 10, 100, 1000, etc. are formed simply by adding zeros.

Further analysis discloses that this continuum can be viewed as **both progressive and regressive**. It is not exclusively linear, but has a cyclic function resulting from the terminal character of the last base digit and the next beginning initiated by zero producing the two-digit range. This doubling of number is for all practical purposes a cyclic function that recycles again and again with each ten-fold group produced.

Besides the cyclic and ambidirectional aspects of the number series, there is also a periodic series of reversals that occur in conjunction with the cyclic aspect.

This ongoing combination of diverse functions can be considered a mixing effect not unlike an egg beater that folds the medium over and over. Remember, from our previous discussion that "OM is said to issue from a process of multifold reflection." That process, exactly, is revealed in the number continuum when we can hold a metaphorical mirror up to nature's primal manifestation--the natural number sequence.

The key to the comprehensive analysis of general number behavior is found in the concept of "circular unity." Circular unity is an idea demonstrated by the harmonious interaction of the first six numbers. SIX is the first perfect number is the sum of its first three digits, or $1 + 2 + 3 = 6$.

$1 \times 2 \times 3 = 6$; $6^2 = 36$; $36 \times 3 = 108$; $36^2 = 1296 \times 2 = 2592$.

The term "unity" (or Universe for that matter) implies something that is composed of parts. Fuller agreed, and stated it as, Unity is plural and at minimum two, or at minimum six.

The sequence of perfect numbers (6, 28, 496, etc.) does not have the structural nor metrological significance of the Holotomic Sequence, which graphically displays an important structural order within prime number distribution.

Note that the first Pythagorean Triple 3:4:5 equals 12, which is Holotome A (which is also twice the first perfect number). $3 + 4 + 5 = 12$.

The sheer complexity of the waves and cycles that are generated within the base ten continuum cannot be described nor explained with conventional modes of philosophical description. Number theorists must resort to higher mathematics. But these cycles can be demonstrated graphically so they are visible even to those not mathematically inclined.

Synchrographics has been systematically contrived to formally illustrate behavioral patterns that have successfully led to a general understanding of the fundamental elements of the reflective and symmetrical as well as geometrical nature of the base ten system.

Can we find a cosmic mandate expressing Fuller's assertion that unity is plural and at minimum sixfold? The Holotomes and Holotomic Sequence fulfill this mandate with neat, logical finite sections. They represent circular unity and whatever else remains of the "infinite rest" that swells beyond our immediate focus.

When we refer to the base of a number system, such as base ten, we are also referring to the amount of iterations in a loop or cycle for the FOLDMENT that multiplies the base and the multiples of that base is for all purposes a circle.

The coexistent independency and interdependency of the base digits creates the rational notion that continuity is discontinuous. From this we derive the closed loop logic of the Holotomes as discrete levels of finitude.

The graphic importance of this particular Holotomic Sequence is that circular symmetry is being conserved and may be enlisted as the fundamental reference key in the graphic investigation of number behavior. The primes are deployed in symmetrical interface only within these specific Holotomic domains.

The Synchrographic process of regarding symmetry as a primary analytical aspect of reference makes the Syndex archetypal system of fundamental classes of

numbers possible. The foundation of this system is the palindromes and transpalindromes.

These 12 archetypal classes of number are catalogued by the ambidirectional glyphs that disclose the transbinomial nature of any individual number. Only 12 permutations exist in the total foldment of the number field or domain: retrosquare primes, retroprime composites, transpalindromes squares, retrosquare composite, palindromic composite, retrocomposite prime, transpalindromic prime, retroprime square, palindromic square, retrocomposite square, transpalindromic composite, palindromic prime.

The so-called four fundamental operations of arithmetic are in reality two binomial pairs: addition is reverse subtraction; multiplication is reverse division.

The term transpalindrome is invoked merely to establish a context through which to establish a bilateral system of numerical classification, that is, to create a notational link between any integer of 2-digits or more with its antithetical or reverse companion. For example, number 21 is the transpalindromic companion of number 12.

This simple concept brings into being a host of valid structural relationships that would otherwise be totally ignored. For example, number 16 is the ONLY 2-digit square that is a prime when reversed: 16 is a square, 61 is a prime. We call number 16 a retroprime square, and number 61 is conversely termed a retrosquare prime.

Without his classification system, it is impossible to analyze the number field. Palindromes, or binomial reflection numbers are neither purely accidental nor without significance. Remember, OM (#108) issued from a process of multifold reflection to create the entire universe of phenomena.

It is through the classification process that the enigma of prime number distribution has been solved. By labelling all possible permutations of the ambidirectional system of number dynamics, we find there are twelve discrete members in the domain of number class.

In order to systematize the study of the base ten concept, a graphic format was essential to organize sizable spans of the continuum for in-depth analysis. The enspirament of number offered itself as the ideal format. The cyclations of the spiral could be referenced to the longer cyclic periods intrinsic to number itself. There are cycles within cycles, more readily seen in graphic format than in a continuous sequence.

This was the general reasoning for adopting the synchrographic methods: to condense, or sample the number continuum, and establish reference to related periods of cyclicity.

The fundamental basis of the compound cycling begins with the circular unity six (ref. Fuller). It is the 2-dimensional circular unity of the spherical 3d model of

sacred space which is composed of the nexus of the four cardinal directions with a vertical axis, (T.R.I.), six ambidirectional axes. It leads directly into the full spectrum of SYNDEX discoveries, or the nuts and bolts of general Numeronomy:

#1. The Triaxial Retrograde Interface is the fundamental program for circular and symmetrical retrograde unity and the general basis of the Holotome's profile.

**$1 + 2 + 3 = 6$; $1 \times 2 \times 3 = 6$; $6^2 = 36$; $36^2 = 1296$.
 $60, 60^2, 60^3, 60^4 = 12,960,000$.**

#2. Description of the proliferation of the Holotomic Sequence by prime number multiplexing; list of first five holotomes and synchrographics describing them.

12
24
72
360
2520

#3. The twelve Syndex glyphs denoting the archetypal system of ambidirectional number classification; also the general explanation of transpalindromicity.

#4. The exemplary nineleven retrograde octave wavecycle and prime/square/composite triplex diagram, denoting the profile of 9/11 cycle in conjunction with the four 2-digit pairs of transpalindromic primes. Also various descriptions of transpalindromic profile in 2,3,4,5,6,7, and 8 digit multiples of 99 sequences. The 9/11 wave cycle was discovered on Synchrograph C, #108.

#5. How retroadditive sums of holotomes produce 1/3, 2/3 or full 99 count or even multiples of 99, thus synchronizing with exemplary wavecycle.

#6. The fourteen 3-digit pairs of transpalindromic primes.

#7. The location of holotomes in exemplary 99 wavecycle path.

#8. Tracks denoting interval symmetry of primes: Holotome D.

#9. Ancient Metrology: The Sumerian knowledge of the Precession of the Equinoxes: $72 \times 360 = 25,920$; and the Holotomes as circular unity, 12 - 24 72 - 360 - 2520, etc. Here the intrinsic structure of number coincides with nature's scenario. And the Hindus used exactly the same figures as metrological modules, as have all subsequent civilizations. Temple architecture is based on multiples of $36 = 6^2$.

In *Cosmic Fishing*, Applewhite recounts Fuller's reaction to the great hexagonal court in the ancient ruins of Baalbek. He said, "The Phoenicians knew my principles."

So, Numeronomy, the laws relating to the essential structure and dynamics of number, is a new word for an extremely ancient science. This science, based on the knowledge that the continuum contains a definite structural order with general laws that describe the nature of that order, has laws that relate to the general behavior and structure of nature itself.

In Synchrographics, the cyclic and reflexive nature of the cardinal/ordinal number series is portrayed through a graphic context which reveals the minimal set of key numbers required to show the coherent nature of prime number order.

Synchrographics suggests some new terms, including a 12 symbol alphabet which is justified by the context. Systematic investigation of the intrinsic structure of the numeric series is purely a matter of selecting a graphic method of mapping numbers in their natural order so that geometrical order is also an integral aspect of that sequence.

The system of multiradial and multiaxial interfacing between number and idea is called spatial formation. The maps that include the relationships of circular unity and the distribution of primes and other classes of number are called mandalogs.

The employment of this multirelational spread sheet permits the number analyst to consider aspects of the numeric continuum that would otherwise not be taken into account and therefore beyond the order-seeking functions of human mentality.

The first important concept of numeronomy is the exemplary base wave. The wave begins both before and after number 10. In fact, it is called the nineleven cycloflex because it is the result of the mutual interaction of both nine and eleven.

This wave begins at ten and concludes its first cycle at 99 ($9 \times 11 = 99$). Then it continues through the multiples of 99 and never ends. This is called exemplary because it sets up a continuous pattern that never ceases and never changes. This

pattern is responsible for the continuous integrity of number behavior.

Numeronomy

Numeronomy, or the laws governing the behavior of the continuum of quantitative notation is the natural result of numerology, the study of number. Numeronomy is the outcome of Synchrographics. Numbers speak for themselves

through structure and behavior. And it is the task of Fuller's synergetic geometry to identify energy with number.

The single most important discovery of the SYNDEX PROJECT is the Holotome and the Holotomic Sequence, created by prime number multiplexing. It was discovered on Synchrograph C.

The second most important discovery is the Exemplary Basewave Octave or Nineleven Cycloflex. It was also discovered by meditating on the C Graph.

The third important discovery is the four pairs of 2-digit transpalindromic primes which served as major clues to the discovery of the coherent order of prime number distribution.

The fourth discovery is how the Holotomes relate to the exemplary octave wavecycle.

Number/geometry is the fundamental cornerstone of human communication and specifically the alphanumeric principle of descriptive notation. The T.R.I. represents the geonumerical basis of the sequence of minimal pluralities that accommodate the maximum amount of dividing factors. The Holotomic mandalogs display the retrograde symmetry of each of the circular unities in the form of a half positive and half negative octave system predicated on the octave nature of the so-called base ten system of number.

The base ten system of number is an octave system, where either one or nine can be seen as a null value event.

Furthermore, this octave can be regarded as a cyclic function. The zero, one, or nine can function as the null event which acts as the null value gap between the beginning and ending of the octave retrograde cyclation, due to its half positive and half negative symmetrical cycle (which negates the numerical value of one or nine just as if they were of the same nature as zero).

Due to the octave nature of the eight true numbers, no transpalindromic sequence can exceed an octave cycle.

Each Holotome in the sequence of holotomes when represented in a radial series of the numbers is composed of a perfectly symmetrical array of prime numbers diametrically opposed to other prime numbers or numbers composed of primes multiplying other primes. Also, the intervals that separate the primes are diametrically opposed to the same magnitude intervals across the wheel, yielding 100% perfect radial symmetry.

In the context of the Holotomes, then, the deployment of prime numbers is an orderly progression. This ends the tradition that the primes do not occur according to any recognizable pattern.

This is the essence of the holotomes and their graphic elegance. Graphical elegance is often found in simplicity of design and complexity of data. Visually attractive graphics also gather their power from content and interpretations beyond the immediate display of some numbers. The best graphics are about the useful and important, about life and death, about the universe. Beautiful graphics do not traffic with the trivial.

On rare occasions, graphical architecture combines with the data content to yield a uniquely spectacular graphic. Such performances can be described and admired, but there are no compositional principles on how to create that one wonderful graphic in a million.

Number is considered so simple and mundane in nature that a popular assumption exists that there is nothing more to know about it that could really be of any valid significance. In a sense, number is self evident and apparently contains no subtle mysteries.

Contrary to this attitude, number is the repository of a highly complex system of very intricate and involved interrelationships that have shaped the cosmological and religious backgrounds of all cultures. They affect us unconsciously at the deepest levels of our belief system, which in turn conditions our thoughts, feeling, and behavior.

The true mechanisms operating in the number chain can be shown in a system of incremental spirals portraying the numeric continuum and the special events which occur in it. R.B. Fuller recognized this when he wrote to Marshall, March 3, 1981: "Your cyclic synchrographing work clarifies and

simplifies this whole matter to an epochal degree."

SYNCHROGRAPHICS

Synchrographics is an innovative, systematic discipline interfacing the natural base ten integer progression with the fundamental elements of geometry. This institutes a graphic synthesis of the the two basic disciplines which in essence are initially two interdependent concepts that only occur through their mutuality.

The Pythagorean Triples that begin with the 3-4-5 triangle bring to note this initial unity of number and geometry attesting to the scientific validity of the synchrographic method of analysing relationships. They are not at all evident without such an interdisciplinary medium.

Each holotome expressed in synchrographic form is geometrically symmetrical. The base digits of the parallel spirals of iterating squares give direct visual evidence of the factorial degree of any specific integer by the

occurrence of squares that have been color-coded for that particular incident of synchronicity.

In that the initial holotome is twelve and all subsequent holotomes are a multiple of that number, the valuable duodecimal interface that encompasses the base digits is reflected in the substratum of all holotomes.

Synchrographics offers a plausible answer to the question of why the Babylonians adopted the 360 degree circular unity. The ancient Hindus chose 108, which is 3 x 36.)

The classic answer is that 360 has many divisors. But perhaps some unknown numerist discovered this sequence in the ancient past.

This sequence is generated by doubling the first perfect number six to equal 12. Then doubling 12 for 24. Then multiplying 24 by the first true prime $12 \times 3 = 72$. Then by multiplying that number by the next true prime $72 \times 5 = 360$. Then multiplying that by the next true prime: $360 \times 7 = 2520$, etc.

By beginning with twelve we have already involved 2,3,4, and 6. By doubling 12 we have involved #8. or five of the base digits. By multiplying 24 by prime number three, we involve nine, or six base digits. By multiplying 72 by 5, we involve seven base digits or 2,3,4,5,6,8 and 9. Finally, by multiplying 360 by 7 we have captured them all: 2520.

If the Babylonian metrologists knew of this, neither they nor modern number theorists make mention of it.

Whatever the case, the Holotomes are ideally adapted as instruments for translating intricate geometrical interrelationships into the language of number. Only through the careful study of these special modules does the exquisite order of prime number occurrence become obvious, for the primes are found to be deployed in symmetrical interface only within these specific holotomic domains.

Thus, number stripped of its structural character is reduced to the empty and monotonous iterations used essentially for counting objects and measuring distances. When numbers, on the other hand, are permitted to be deployed in cycles that are in phase with their already inherent rhythms, a clearer picture emerges.

All mandalogs are the product of the systematic generation of the exact sequence of minimax factorization. They have the perfect retrograde feature by which the patterns generated in the first half of the spiral are reversed at midpoint and are reflected as a mirrored image in the second half of the spiral. Remember, OM was formed by multifold reflection!

Also, because of the existence of palindromes and other reflective qualities issuing through each holotome there is an exemplary wave form that begins at the end of the first holotome. This is a dual component wave, resembling the DNA

helix. The wave begins amid number ten and is composed of square number nine and palindromic prime number eleven.

This compound cyclic wave is labeled the nineleven cycloflex. It cycles and oscillates through multiples of ninety-nine and produces decant or tenfold series of consistent tranpalindromic sequences or numbers. Each number in the sequence has its perfect reversal on the corresponding other side.

The total reversal of number should always have been expected in that the number chain is by its graphic nature a two-way street, refolded again in the four fundamental operations of arithmetic.

The graphic mandalogs contain a rational and logical system of interrelating number and geometry or quality and quantity. They are graphic expressions of identical ideas regarding the descriptions of events in nature.

A critical consideration in expressing the optimum number of interrelated ratios is to do so with a minimum amount of graphic details. That is, to show the most information with the least given axis of reference. The mandalogs, or number wheels, are mathematical entities which express a plurality of interdependent formulae in a simple singular system.

The cornerstone of SYNCHROGRAPHICS is the preliminary Pythagorean Triple:

$$3 + 4 + 5 = 12:$$

Holotome A times two equals B or 24

times prime number three equals C or 72

times prime number five equals D or 360

times prime number seven equals E or 2520

times prime number eleven equals F or 27720

times prime number thirteen equals G or 360360

In this way, the minimal numbers that accomodate the maximum amount of consecutive factors of division are generated by the multiplication of each resultant sum with the next prime number in its natural order of occurrence.

Each of these Holotomes is a number of special geometry, a circular unity. Expressed as a geometrical entity, a synchrographed Holotome is found to be reflectively symmetrical. At its midpoint, its initial pattern reverses and its second half becomes a reflection of its first half, much as OM created the Universe through its "multifold reflection."

J.S. Bach used this numerical phenomena in his Crab Canon or Retrograde Fugue. The breakdown of that notation was 22×144 or 3168. This number is cited in the Qabala as the perimeter of Solomon's temple: 3168 divided by $1008 = 3.1428571$ (4×252).

The secret traditions seem to have made liberal use of the Holotomes without ever pointing them out.

The number 3168 has special qualities: By adding the palindrome which is the sum of a palindrome times another palindrome:

$$\begin{array}{r} 3168 \\ 5445 : 55 \times 99 \\ 8613 \end{array}$$

We get a reversal of the initial number.

The ninety-nine cycle is the carrier wave of the transpalindromic reflection sequence. This sequence is crucial to the mapping of the natural number scenario because the 99 cycle issues through the Holotomes.

The Holotomes are ideally adapted as an instrument for translating into the language of number the intricate geometrical interrelations between the configurations of cubic space. The Pythagorean Triples are the best examples of the interdependent nature of number and geometry. These triples logically deduced as an "infinite set" all share the 90 degree angle. They show the geonumeric character which describes the same ratios and interrelationships in different styles of notation.

Synchrographics begins with the assumption that since number and geometry are two ways of expressing the same set of ratios or relationships, then it holds true that a graphic device may be generated that faithfully aligns these two methods of notation in a synchronetic diagram. That is, a single notational system may express the geometrical nature of number and visa versa.

The "four progressively additive and four progressively subtractive event octaes with a ninth null event" depicts the primary cycle or finite extent of the initial program parameter.

With the turnaround occuring at ten (between square number nine and prime number eleven), the nineleven wavecycle then begins and proceeds to fortynine and a half (49.5). It turns around and proceeds to ninetynine (99), and thereafter continues through the multiples of 99 to 1089 or the only four-digit transpalindromic square.

The behavior or structure of the baseten system requires the perspective of an integrated complex where number and geometry are interqualifying aspects of an unified system of congruent identities. The character of notation determines whether data is in the form of number or geometry. Each requires the other in order to be expressed.

This interdependency authorizes the synchrograph to represent a number as a geometrical phenomena in which each holotome contains the triquadric core intitiated in number 12.

Holotome A diagram

Thus, every subsequent holotome retains a copy of the initial data, plus new more involved data. **Each and every holotome is a symmetrical retrograde MANDALOG**, representing the four progressively additive then progressively subtractive event octaves with a ninth null event synchronicity. Altogether it represents the octave nine system of R.B. Fuller, or Marshall's nineleven cycloflex.

The exemplary compound wavecycle which proliferates through the multiples of 99 is the carrier wave that both integrates and isolates the Holotomes with accumulative integrity. In this scenario, the primes behave in an orderly manner through their special palindromic members:

13 31 17 71 37 73 79 97

The four pairs of two-digit palindromic primes form the octave bridge in the 99 cycle.

The general laws of number behavior can now be written from the behaviors clarified through synchrographic mapping techniques. Numeronomy is then expressed or emanated through the tranpalindromic functions, which remain unseen in classical number theory and structure.

The intellectual separation of geometry from number removed from number the purely geometrical aspects of the numerical continuum that made the holotomes apparent as symmetrical mathematical entities.

Only through the study of these special modules does the exquisite order of prime number occurrence become obvious. These geometric number wheels are unique examples of circular unities.

The primes are deployed in symmetrical interface only within these specific Holotomic domains.

There is a way in which to seek out these entities by intermultiplying the primes from a special base module. Much in the way that the factorials are produced but with the difference that diminishes the huge sums that result from the redundant multiplication of the accumulating composites, out of what would have been primes.

We begin with six, the first perfect number, then double it to produce 12, which we call a holotome. This produces a **number wheel** that involves all of the base digits plus three of the first two-digit numbers. This number wheel contains all of the needed geometry by which to proliferate the family of related Holotomes.

All mandalogs are the product of the systematic generation of the exact sequence of minimax factorization. They have the perfect retrograde feature which reverses at midpoint, because of the existence of palindromes and other reflective qualities.

They are graphically elegant due to simplicity of design and complexity of data. Visually attractive, they gather their power from content and interpretations beyond the immediate display of some numbers. The best graphics (most important and beautiful) are about the useful and important, about life and death, about the universe. They contain maximal information with minimal graphic elements. On rare occasions graphical architecture combines with the data content to yield a uniquely spectacular graphic. Such performances can be described and admired but there are no compositional principles on how to create that one wonderful graphic in a million.

The first solid indication of a rational link between prime numbers and square numbers was found in the diagram entitled the prime/square interface which actually includes the composites in that the full overview addresses the holistic interaction of all classes.

The prime/square interface diagram consists of a vertical column of the first one hundred and one numbers with their squares listed on a right hand column. The finite extent of this number map is calculated to encompass the full range of the 99 cycle. The cycle contains the exemplary basewave that is essential to the structural integrity of the Holotomes. This wave in a certain sense is such that it determines the point places in the continuum where discontinuity may or may not occur.

The mandalog, then, is a graphic mathematical entity for the expression of a plurality of interdependent formula in a simplicated singular system, i.e. an information containment mechanism, or book: Holotome.

Such a device contains information and is at the same time a device to convey information clearly and accurately, with a minimal possibility of ambiguity, error, or paradox.

In classical systems of encoding and conveying information, elements of paradox occur through the vehicle of language itself. The fault generally exists in the very foundation of language at the fundamental level of syntax.

It is through the transpalindromic nature of the natural baseten number sequence that the irregular occurrence of prime numbers is recognized as a purely causally-determined pattern of rational explanation.

The classical approach to a study of prime numbers is such that the primes are considered more or less estranged from other classes of numbers in hopes that the primes might manifest some intrinsic rhythm of their own that could be found to account for distribution, density, etc.

No single class can be isolated as an element responsible as a determinant of any specified classes of behavior, since the full compliment of classes that comprize the self-modifying continuum interact congressionally.

Synchrographic analysis has shown that an exemplary wave form is formulated in the structuring of the base digits which when issuing through the sequence of numbers maintains its own structural quality even while it modifies the quality of the numerical event identities it encounters.

This wave form occurs through the mutual interaction of square number nine and palindromic prime number eleven. In that nine times eleven equals ninety-nine, the wave proliferates through the multiples of ninety-nine.

Fuller did not have the advantage of synchrographs to clearly see and properly describe this basewave. This description of an octave-nine system had the turnaround at fifty. The true nineleven turnaround is a 49.5.

The graphic mandalogs allow us to monitor the exemplary basewave that is guided through the continuum of natural number by the cyclic and reflexive qualities inherent in the special or noble numbers.

In the Prime/Square Interface Diagram, the basewave is seen to contain itself throught the palindromic mechanism that is sustained through the four pairs of transpalindromic primes that act as transnumeric relay stations.

The tapestry of number is literally woven with the four warps and four woofs, or octave, of the transpalindromic bridge between the fist and only two-digit pralindromic prime number 11 and the first, but not only, 3-digit prime number 101--primes that are known to proliferate palindromes in being multiplied by themselves.

The full importance of the basewave continuity observed in the multiples of 99 is only realized when investigating its involvement in the structure of the Holotomes. The initial holotomes contain only a rational section of a complete cycle; that portion necessary to insure a quality of infinity, (the number repeating itself indefinitely).

The number structure or number behavior mapping technique makes number theory visibly coherent. Synchrographic techniques are scientifically systematic. The general scheme of Numeronomy involves a more complete system of classification which takes special note of both the palindromic and transpalindromic nature of number. It is possible (but remains to be calculated), that the holotomes contain a consistent ratio between primes and non-primes with the holotomes that precede and follow.

TRANSPALINDROMES

Transpalindromicity of number is merely a term by which we include the reversal of any particular number exceeding a single digit. For example, 16 and 61.

Another example involving a transpalindromic distinction is when a reversed number remains in its class, like 13 and 31 which are both primes, i.e. transpalindromic primes as compared to a simple palindromic prime such as eleven. These are only twelve permutations possible within the whole continuum of number.

The complete analysis of number behavior is not possible without taking into account the palindromic and transpalindromic characters of number. This is the crucial and paramount reason that the behavior of prime numbers have remained an enigma for so long.

Number theory has ignored the ambidirectional reflexivity inherent in the number continuum. Regaining an impartial view of how reflexivity is totally conserved within the continuum leaves no gaps in the concept of numerical continuity.

The synchrographs and mandalogs used in this study are to support the continuity that has been disrupted by the belief that prime numbers are without connective order. Toward this end, we introduce approximately 16 new words that fill in the missing blanks to form a coherent picture or concept of true number dynamics.

The term "synchrostat" designates an event synchronicity in the numeric continuum. This term and its subsequent Tables were valuable tools in indentifying a cyclic series of numbers that embody features that were common to all members of the series. They embody and exemplify a practice that was used to explore many other cycles until the main base cycle was finally discovered.

Synchrostat illus. here.

Comprehending the universal nature of the transpalindromic function of number behavior is not easy. We tend to see the number chain as a unidirectional continuum, which is too linear for a synergetic perspective. Revisioning it with the concept of simultaneous counterflow yields a more accurate picture. With large spans of number, the complex interrelationships become difficult to visualize.

Fortunately, because of the octave nature of the base cycle there cannot be more than four consecutive transpalindromic pairs in a single symmetrical sequence, regardless of the amount of digits in each individual number.

However, we are only looking at the multiples of nine. But, in fact, all the numbers in between are also involved in transpalindromic transactions. To address such a complex interchange by graphic means can only be accomplished in a series of static cross-sections each involving no more than the eight required transactions.

The exemplary 99 wavecycle affords us a context that gives a graphic expression of total transpalindromic symmetry which it is possible to contemplate with clarity.

All the Holotomes contain the same general mechanism seen in the 99 cycle, but even the Holotomes must be contemplated in various graphic modes to capture their full integrity.

Transpalindromicity functions through the ambidirectional nature of number. It is therefore, the initial or primary function of number behavior in general. All details of number behavior derive primarily from a transpalindromic function operating through an ambidirectional chain of ambidirectional numerical events.

If any aspect of direction is left unconsidered in the behavior of any specified event then behavior observed in connection with that event will have been compromised. In the past, there has been a general disregard for the retrocity of number in general. Yet, no single function is more important or interesting than this transpalindromic nature in determining the basic waveforms inherent in baseten numeration.

Transpalindromic symmetry refers to a circular module of numerical relationships and interoperations which form a totally harmonious retrograde and symmetrical octave unity. The emphasis is not on palindromes, but on the relationship existing between palindromes and transpalindromes:

1089

Palindromes: 55 x 99 = 5445

9018

We can take any number, reverse it, add the two numbers together, continue to reverse and add, and eventually end up with a palindrome--a number whose digits appear in the same order whether they are read from left to right or from right to left.

Transpalindromic symmetry is not isolated to the few graphic expressions submitted here as examples to clarify the meaning of this neologism (transpalindromicity) on the subject of number behavior.

Transpalindromic behavior itself is a totally general condition of the number chain and is operative throughout the continuum. It is also a primary factor in the graphic disclosure of many subtle but important aspects of number behavior; an intrinsic structural condition effecting every and all numbers in their collective interactions.

Transpalindromic symmetry is a condition relating to specific isolated groups of number or special numerical quata where symmetry manifests as a collective mutual interaction.

A Holotome is such a collective interactive group where symmetry is herein claimed to be absolute.

A Holotome is distinguished by an integrity of retrograde octave symmetry, discrete levels of finitude and circular unity. Its expression in synchrographic form is a holistic synthesis of graphic syntax.

A contemplative instrument of inquiry into the relationships between words and the ideapictures they mean to represent.

Transpalindromic symmetry means cycloreflexive synchronicity: what comes around goes around. Palindromes are symmetrically flanked by

up to four tranpalindromic pairs.

SUMMARY

The Goldbach Postulate alleges that '*every even number is the sum of two primes.*' The case has not yet been reported where this does not hold true. Even though this postulate is unprovable in the sense that all even numbers can't be checked out, it may be provable through a true understanding of how the sequence of number operates.

No even number may be a prime because of the prior occurrence of number 2, which acts as a divisor for all even numbers. The first three odd numbers are primes because no number preceding them has occurred that could act as a divisor. Number 9 is the first odd number that is not a prime, because of the prior occurrence of number 3.

Therefore, the occurrence of the first odd number as a composite is the result of the previous occurrence of an odd number that had no preceding divisors except unity, which is indivisible by definition. So, the composite nature of 9 is causally determined in that 9 would have been a prime like all previous odd numbers, but for the prior occurrence of number 3.

From this it may be postulated that all even numbers will be composites, and all odd numbers are potentially primes unless some previous odd number has occurred that acts as a factor, rendering them composites.

This is also a way of saying that every odd number that is not a prime is the product of at least one previous prime and one previous composite, ($3 \times 3 = 9$).

But the serial equatability of the of the progressively divisible number chain produces a surplus of combinations to produce primes from even numbers. In fact, as numbers progress, composites will occur that accomodate multiple sets of primes and visa versa, rendering the Goldbach Postulate a probability.

The assumption that all odd numbers would be primes if no previous number had occurred that would act as a divisible factor perfectly fits the case. If the prior number had not occurred, or could be stricken out, as in the case of number three, 9 would be a prime number, but since three is three and not something else, 9 is a composite.

The fact that nine is also a square number tells us also that the generation of squares, cubes, etc. is also a result of the occurrence of previous odd numbers, as two odds make an even and two of the same odd numbers multiply into a square number.

Continuity is a provisional term that requires a context describing a series of entity events that connect or disconnect to or from each other.

The primes have always been regarded as a single class with no breakdown into sub-classes, no different kinds of primes.

Secondly, the primes have been viewed apart from the composites, thereby ignoring any relationships that they certainly must share with other classes of number.

The first indications that other classes of primes exist was found in the nature of square numbers. The square number sixteen contains unique features when reversed to 61, as we have noted elsewhere.

All consecutive primes between 0 and 1000 differ from each other by even numbers which range from 2 to 20 with one exception: none differ from each other by 16, reflecting our exceptional 2-digit prime/square reversal.

The first three digits--1,2, and 3--are generally regarded as primes, but the initial members are in a class by themselves. One is not even a number, in the serial sense. It does not multiply like real numbers do. Two is also not a number, but the source of doubling of unity--duality. 1×2 is 2×1 . It is the source of duality, evenness or balanced symmetry, and essentially static state.

Three is also not a number, but the source of imbalance and asymmetry, a source of dynamic flow. The source of oddity or difference with these three qualities produces **number four, the first real number or the idea of quantity/quality and dimensionality of the tetrahedron.**

Even and odd are established in the ideas of two and three. They are essentially spatial or geometrical ideas relating to shape and form. They are the prototypes that establish the classes of number yet to come.

All even numbers are non-primes because they are matched pairs or symmetrical sets of two.

All odd numbers are potentially primes, being uneven non-symmetrical amounts. The first odd number to become a composite is nine. It is not a prime because of the initial occurrence of 3, which acts as a factor making 9 geometrically symmetrical. Two odds make an even. 9 is axially odd, but radially even.

The SYNDEX description of number behavior employs the overview of the cycloflex. It represents the reality of function that is both cyclic and oscillatory, i.e. both rotational and reciprocating.

In describing number behavior and dynamics, it becomes necessary to show the interaction existing between palindromic and transpalindromic numbers--an interaction that is in essence a cyclic behavior.

The retrograde functions progress to a point and then reverse in octave cycles of four forward and four backward number events. This is a wave-cycle or cycloflex.

Continuity in the description of the exemplary basewave cannot mean it in the sense of something uninterrupted because it must be curtailed on the upper limit of the Holotome for the sake of holistic unity.

Continuity has given trouble to the number theorist because of the mind's insistence that any specific integer is an isolated idea entity and cannot be effected by another integer, several or even many times removed. But this is, in reality, the case when number 9 is not a prime because of the usurpation of its "primeness" by 3.

This transinteger dynamic is a passive dynamic. It happens as an acausal determinate which means the retrograde loops on the SYNDEX number maps are left to show the truth.

The number reversals that purport to carry the exemplary wave are gestures of quasi-disconnective continuity because the relations must be shown that we may see how numbers interact as they flow towards some "nothing" called infinity.

The prior reference to approach of holistic continuity at the end of a Holotome is the final non-event of such a specific system. The octave is best deactivated at these discrete points. It is predominantly the Holotomes that clarify the distribution of prime numbers, for the primes are symmetrically arrayed within the context of each holotome.

The radial symmetry of the holtomes is, in itself, the geometrical proof of numerical coherency. That each subsequent holotome admits one, and only one, additional divisor establishes a rational medium between prime numbers and the sequence of specific compositry.

Though the structure of the baseten continuum is a highly complex order, there are graphic methods by which the more important aspects of that order may be appreciably simplified.

For example, there are very rare, often unique examples, of certain classes of number that occur seldom or even just once in the two-digit numbers and it was through the discovery of these rare or noble examples that the exemplary basewave cycle was discovered. Once that cycle was isolated, it was a simple matter to extrapolate into the higher order to secure the multiple digit cousins of those noble examples for comparisons to confirm the sustained functions of the cycles being investigated.

A basewave was long ago suspected by the classical number theorists, but its elusive nature was due to the fact that it was not a singular wave form but a compound variety. A wave composed of the mutual interaction of square number nine and prime number eleven whose essential palindromic nature is connected with the transpalindromic aspects of the total numeric profile.

The Synchrographs act as maps by which we may follow the progress of this exemplary wave cycle. It is a feature that would not in any way be apparent without such a systematic graphic mechanism.

The nineleven wave is further caged by such features of the continuum as the line pair of 4-digit transpalindromic squares--those being the square of 33 and 99: 1089 and 9801. These two interreflecting squares neatly bracket an octave sequence of four forward and four reverse multiples of the first square which significantly includes a center or nave member which is a palindrome which results from two 2-digit palindromes.

By and large, it is predominantly the holotomes that clarify the distribution of prime numbers because the primes are symmetrically arrayed within the context of each holotome. And the number of primes in each holotome is determined by the total modular amount of the previous holotome. For example, Holotome E or #2520 contains 367 primes or just seven more than Holotome D which is #360 ($360 \times 7 = 2520$) and Holotome D contains 72 primes, where #72 is the modular sum of the previous holotome.

The fundamental intent of the initial ideas was to create a context which would geometrically paraphrase the elements of numerical progression in a graphic system that involves the primary elements of plane or two dimensional geometry. The two axes provide a base for symmetry as a reference to systematically involve the cyclic and wave functions of the numeric continuum.

APPLICATIONS
GENERAL SYSTEMS THEORY
PART II
REFLECTAPHORS
INTERDISCIPLINARY ANALOGS

General Systems Theory

Post-Quantum Physics & the 99 Cycloflex
Rhythm: The Music of the Spheres
Number & Jung's Transformational Process
The Diamond Body: Buckminster Fuller & the Qabala

N=50, V=6: A 56-Facet Stonehenge Mandalog

INTERDISCIPLINARY ANALOGS

"Computation according to the wisdom of Anship, is the secret of the deity, the guarded knowledge of the expert. The informed may show it to the informed;

the uninformed may not see it. It belongs to the forbidden things of Any, Eniii, and Ra, the great Gods."

Sumerian astronomical tablet from Uruk

Most of the population is so math phobic that they have little idea of what mathematicians do let alone how they do it. In fact, most mathematicians can't comprehend one another's work. Few realize that mathematics has become progressively more specialized (with over 3500 subcategories), until even most mathematicians cannot understand each others theories and proofs. There are extremely few qualified critics. They don't even know what one another are doing and generally only have a coherent pattern of development in their own narrow specialty.

There is no stated criteria for evaluating work in widely separated specialties, for example nonlinear wave propagation and category-theoretic logic. Probably no one knows what is going on in both fields, and 95% of all professional mathematicians couldn't understand either one. No one in all of mathematics attempts to decide what is important and what is ephemeral.

With all those subcategories, and over 200,000 theorems published a year, there is no assurance of their survival except "survival of the fittest," what is deemed useful rises like cream, and gets used and remembered. What is valuable in math is based on our notion of the nature and purpose of mathematics, itself. Most professionals have learned to bypass the ontological and epistemological question as irrelevant by cleaving to ontological materialism, and epistemological empiricism.

In practice, panels from many specialties are formed to determine grant funding. Since hardly anyone knows what is important outside of their narrow specialties, funding is political, rather than based on perceived merit. Generally, each specialist favors his specialty first, then each "area" or "field" gets its quota. "...no one has to justify his own field's existence, and everyone tolerates the continued existence of various other "superfluous" branches of mathematics."

There is work, then, which is wrong, is acknowledged to be wrong and which at some later date may be set to rights. There is work which is dismissed without examination. There is work which is so obscure that it is difficult to interpret and gets ignored. Some of it may emerge later.

There is work which may be of great importance--such as Cantor's set theory--which is heterodox, and as a result, is ignored or boycotted. There is also work, perhaps the bulk of the mathematical output, which is admittedly correct, but which in the long run is ignored for lack of interest, or because the main streams of mathematics did not choose to pass that way.

In the final analysis, there can be no formalization of what is right and how we know it is right, what is accepted, and what the mechanism for acceptance is. As

Hermann Weyl has written, "*Mathematizing may well be a creative activity of man...whose historic decisions defy complete objective rationalization.*"

GENERAL SYSTEMS THEORY

Systems theory was proposed in the 1940s by the biologist **Ludwig von Bertalanffy** (anthology: **General Systems Theory**, 1968). He and his colleagues were reacting against reductionism and trying to revive a holistic perspective in science, lost since the expulsion of natural science as a unified, self-directed study of many subjects. His main thrust emphasized that real systems are open to, and interact with, their environments, and can acquire qualitatively new properties through emergence, resulting in continual evolution.

Rather than reducing an entity to the properties of its parts or elements, systems theory focuses on the arrangement of and relations between the parts which connect them into a whole (holism). This particular organization determines a system, which is independent of the concrete substance of the elements.

Thus, the same concepts and principles of organization underlie the different disciplines (physics, biology, technology, sociology, etc), providing a basis for their unification. Buckminster Fuller was an avid generalist and proponent of systems theory and interdisciplinary interaction.

General Systems Theory was proposed by **von Bertalanffy** to provide a common meeting-ground for interdisciplinary studies. Fuller promoted generalism over the obvious alienating constraints of over-specialization, but he raised it to a high art in Synergetics, combining poetry, geometry, mathematics, architecture, etc.

Scientists and humanists had long lamented the isolation of their respective disciplines. Bertrand Russell pointed out:

"It is noteworthy that modern Platonists, with few exceptions, are ignorant of mathematics, in spite of the immense importance that Plato attached to arithmetic and geometry, and the immense influence that they had on his philosophy. This is an example of the evils of specialization; a man must not write on Plato unless he has spent so much of his youth on Greek as to have had no time for the things that Plato thought important."

We have dared to do so, for syndex theory is a platonic pursuit.

In sharing theories from other disciplines, light can be shed metaphorically on theories from another area of inquiry, for example using physics theories to create psychological models for therapy. This is the goal of the **Society for Chaos in Psychology and the Life Sciences**: to use chaos and complexity metaphors to model new therapeutic processes. Physics, has also been illuminated by spiritual

metaphors, specifically works citing Buddhism, such as **THE TAO OF PHYSICS** (Capra, 19).

We call the union, through metaphor, of these seemingly disparate areas of research **REFLECTAPHORS** (Reflective Metaphors). Jungian Psychology has been one of the main proponents of this pursuit, and M.-L. von Franz, herself has invoked many a metaphorical model from physics and number theory to define her psychological concepts. Perhaps this type of interdisciplinary task force is what she had in mind when she suggested mathematics continue to be examined in fresh ways:

"I would conjecture that the task of future mathematicians will be to collect their characteristics and analyze, when possible, every number in its logical relationship to all others. This research should be undertaken in collaborations with physicists, musicians, and psychologists who are conversant with the empirical facts about the structural characteristics of numbers in different mediums."

Metaphors help identify how to apply discoveries to new situations, and may even guide efforts to develop new theories. At first, they may be a movement away from scientific rigor, but we need this flexibility in thinking. The interplay between rigor and metaphors can still be monitored to avoid confusion. We can redefine terms to give clear meaning to essentially untestable ones.

Metaphors are useful for discussing different ways of looking at process and behavior, but there is little effort to test them beyond limited cases. We can use them for epistemological, explanatory purposes, and in defining implications, for defining communication and mental clarification. In this regard, Syndex forms a comprehensible language for calculation and derivation.

Metaphors are tools for getting into and out of assumptions, which might not be obvious just from looking at assumptions. Metaphor is a language for communicating about phenomena, and can lead to nonobvious conclusions. We need innovative quantitative measures derivable from verbal content to apply our work on a deeper level than only numerical reports.

Immersing oneself in a concrete scientific thought, and then clearing the mind allows images to spring forth spontaneously which may be very relevant. The ego interacts with the deeper mind in wonder yet with logic and active images. Einstein had his two passing trains which evoked his theories about time and his famous thought experiment where he imagined riding on a beam of light. Watson and Crick had the two snakes entwining which stimulated the concept of the DNA double helix. Kekule dreamed of a serpent biting its tail, and discovered the benzene ring.

Rather than relying on the gifts of association, correspondences, and dreams, we can also create an atmosphere and situations which give us the opportunity to discover and create rich metaphors, which expand, deepen, and lead to valid concepts. In new studies, metaphor is a great aid to communication.

POST-QUANTUM PHYSICS AND THE 99 CYCLOFLEX

"Somewhere within that emptiness, we know, is a nucleus. We scan the space, and there it is, a tiny dot. At last, we have discovered something hard and solid, a reference point. But no--as we move closer to the nucleus, it too begins to dissolve. It too is nothing more than an oscillating field, waves of rhythm. Inside the nucleus are other organized fields, protons, neutrons, even smaller 'particles.' Each of these, upon our approach, also dissolves into pure rhythm."

George Leonard, *THE SILENT PULSE*

Our first reflectaphor comes from the leading edge of physics. Most terms in physics are metaphors, including time and matter. When Max Planck originally worked out his theory of Quantum Mechanics, he drew inferences from his extensive knowledge about the nature of harmonics in music.

"The most important point for our context is the fact that the spin [of an electron] is always a whole-number multiple of the most important natural constant of the microcosm, Planck's constant. When I say 'whole number multiple,' it is clear that we are dealing with a harmonic phenomenon. As a matter of fact, Max Planck, who was very much interested in music, supposedly was inspired to work out his quantum theory by the well-known phenomenon that the notes in an overtone scale jump from one whole number to the next."

(Berendt, *THE WORLD IS SOUND: NADA BRAHMA*, p. 71).

Non-orthodox POST-QUANTUM MECHANICS is only about two years old as of this 1998 writing. In modern number theory, integers in their entirety are considered a field, an active informational field. Extrapolating from physics, we can suggest a "wave-particle" complementarity theory of the number field.

This model reveals a key (here termed THE AURIC KEY) to the orderly distribution of prime numbers. It suggests a "nonlocal" connection between "distant" numbers. Post-quantum BACKACTIVITY is the key idea. PQM merely adds backactivity or a two-way process to all other QM processes. One of the main implications for this theory is the plausibility that not only does "mind affect matter" at the quantum level, but that "matter affects mind" in a backacting feedback loop. Proponents of PQM include David Bohm, Roger Penrose, Jack Sarfatti, Fred Alan Wolf, Nick Herbert, Basil Hiley, Stapp, etc.

Post-quantum mechanics uses the notion of a guide wave or quantum "pilot wave," which propagates backwards and forwards. We suggest, analogously, that there is an "EXEMPLARY WAVE" (99 CYCLOFLEX) which is a basic element of the structure of number -- a repeating cycle of 99. The wave permeates the field, and has no sources or other forms of dependence on the "particle positions" of integers, to the nth degree.

As in PQM, we suggest a two-way relationship between wave (cycloflex) and particle (integers). Its source, as in physics, could be "backactivity," the inherent tendency to intrinsic self-organization. Sarfatti (1998) informs us that, "Self-organization emerges when the direct backactivity of the particle supplements the one-way relation of wave on particle on its guiding quantum pilot wave." There is a non-local connection between wave function and its corresponding physical particle.

He also states that, "the self organizational change of direct post-quantum backactivity is a self-referential kind of change." Since it is not a classical mechanical wave (such as a sound wave), "the quantum potential is independent of the strength (i.e. intensity) of the quantum field but depends only on its FORM."

A good description of the nature of mind (and also apparently rational numbers) requires non-random, self-organizing, post-quantum mechanics. In PQM, departure from randomness is the signature of sentience and intent. This statement is food for Syndex thought.

In SYNDEX THEORY, prime number distribution departs from randomness, indicating an "intentionality" in the rhythm. Thus, we can conceive of the number continuum as a self-organizing "living process."

We can pursue the analogy of a two-way relationship or feedback-control loop between wave (CYCLOFLEX) and particle (integers). Syndex theory reveals a symmetry structure, a reversible engine of spontaneous non-random, orchestrated self-organization. CYCLOFLEX is a feedback-control loop. Orchestration is from the two-way relationship between guide wave and integers feeding back like the loop between a conductor and his orchestra.

Classically, the quantum wave acts "one-way" as the "unmoved mover" of its manifesting particle without the latter acting directly on it in a self-organizing way. However, in PQM advanced influences propagate both forwards and backward in time from future to past. The past conditions the future causally, but there are also precursor waves travelling back in time from strange attractors in the future which "pull" us forward.

The wave affects the particle and the particle then affects and conditions the wave. This is a model for quantum mind over matter. If the "influence" acts

as a signal, it has the additional property that it can be locally decoded at the receiver without needing additional bits from the "sender."

To summarize, PQM introduces the notion of backactivity of direct action of the "particle" on its guiding quantum wave. Sarfatti points out that this forms a closed feedback loop which replaces fragility in the system with a robust self-organization. **Syndex is a catalog of operations designed to evoke operations of increasing order, resulting from just such feedback loops and self-organization..**

RHYTHM: THE MUSIC OF THE SPHERES

"Music is a hidden arithmetic exercise of the soul, which does not know that it is dealing with numbers, because it does many things by way of unnoticed conceptions which with clear conception it could not do. Those who believe that nothing can happen in the soul of which the soul is not conscious are wrong. For this reason the soul, although not realizing that it is involved in mathematical computation, still senses the effect of this unnoticeable forming of numbers either as a resultant feeling of well-being in the case of harmonies or as discomfort in the case of disharmonies."

Gottfried Wilhelm Leibniz

Rhythm is the basis of harmonic proportions and intervals, fundamental physical mechanisms. This harmonious equilibration was expounded upon by Pythagoras, father of Philosophy. Pythagorean thought formed the basis of the philosophy of Plato, and later Neo-Pythagoreans and Platonists, and greatly influenced the development of western science.

Pythagoras laid the foundation for a holistic science which integrated spiritual, ethical, and metaphysical, as well as practical techniques. Pythagoras is famous for his axiomatic viewpoint that *"there is geometry in the humming of the strings. There is music in the spacing of the spheres."* From Plotinus we hear, *"All music based upon melody and rhythm, is the earthly representative of heavenly music."* And from Sufi Hazrat Inayat Khan,

"When one looks at the cosmos, the movements of the stars and planets, the law of vibration and rhythm, all perfect and unchanging, it shows that the cosmic system is working by the law of music, the law of harmony; and whenever that harmony in the cosmic system is lacking in any way, then in proportion disaster comes to the world, and its influence is seen in the many destructive forces which are manifest there. The whole of astrological law and the science of magic and mysticism behind it, are based upon music."

Pythagoras systematized the laws which allow the creation of stringed instruments: musical scale intervals (octaves, fifths, fourths, thirds). He recognized that these fundamentally abstract relationships pervade all creation--even matter itself. In music, as in nature, a wave is a shape in motion. Each note has a wave-shape.

The octave comes from exactly doubling, or halving the string length, that is in 1:2 proportion, while the harmonious fifth has a 2:3 ratio and the fourth 3:4. There is also the less obvious 4:5 interval of the third, and even less obvious consonances.

Any tone in the overtone scale is higher than the preceding tone by precisely one whole number. These are the so-called harmonics. The lower the proportions of the numbers, the stronger the consonance, the more harmonious the sound of the two tones together. The primal polarity ratio of 1:2 is the most harmonious to our ears which are biologically geared to seven basic laws of harmony based on the primal law of whole-number quanta (which prevails in physics as well as music):

THE SEVEN LAWS OF HARMONY

- 1. the overtone scale**
- 2. the interval proportions**
- 3. the division of the octave into twelve semitones**
- 4. the difference between consonance and dissonance, the consonance growing as the proportion of the numbers gets smaller**
- 5. the difference between major and minor, the major proportion being the most frequent by far**
- 6. the predominance of the 1:2 polarity, the octave**
- 7. the law of the Lambdoma (a column of numbers written in the form of the Greek letter lambda, whose right leg consists of whole numbers going from one to infinity while the left leg contains the fractions of these same whole numbers, so that the coordinates of the open isosceles triangle follow the scale of overtones or undertones). There are correspondences in physics, acoustics, arithmetic, geometry, crystallography, cybernetics, theology and philosophy, the genetic code and I Ching.**

Harmonics are fundamental to our human biology as well, according to Haase:

"It has been found that the rhythmic functions of the human organism function utterly harmonically--that is, the frequencies of pulse, breathing, blood circulation, etc., as well as their combined activities. We can observe that these rhythms are strictly coordinated, primarily in terms of the numbers one through four, which

are able to form the intervals octave (1:2), fifth (2:3), fourth (3:4), twelfth (1:3), and double octave (1:4)."

These realizations led to the contemplation of the abstract ratio of numbers and geometric figures, and were instrumental in the discovery of the harmonic mean (pitch ratio between two neighboring musical notes). In general, means and proportions have special significance as symbols of the integral order of the universe.

Ancient Greek music employed the Diatonic Scale, which progressed downward in pitch. It has weird quarter-tone modes and modalities and was used in plaintive songs of temple and church, sung as haunting chants. The Hindus, on the other hand used an unbridled scale of 22 alternative notes of variable sequence. The Arabs used various modes in quarter tones, while other cultures explored third-, sixth-, eighth-, twelfth-, and even sixteenth-tone music. Our modern, western ears prefer the tones of the "Equable Keyboard."

However, even though offering few perfect intervals and triads in keys other than its own, the diatonic scale is interesting because all its tonal differences in frequency are multiples of the prime number 11. Still, it failed utterly as a practical all-around tool of music. So much for old models. A useable scale is, after all, just a tool of music.

We will return to some of the basics of number theory in the thought of these philosophers later. First, we will show an example of music related to our theory of backactivity in the number continuum. For this, we need to visit a composer with an ear for physical theory.

The **RETROGRADE FUGE**, or **CRAB CANON**, was arguably **J.S. Bach's** most significant contribution to the science of musicology, at least in terms of Syndex. If properly understood, it makes valid the term "musiconomy" as a legitimate term, (the laws of rhythmic structure).

The parallels of nature's scenarios to the Retrograde Fuge are endless. That it took 6000 years to produce a musician they would once again use the retrograde function in designing music is incredible. Ancient cuneiform musical notation has revealed extensive use of this fundamental rhythmical format, as discovered by a Berkeley musicologist in 1979.

We can conjecture that the music of the spheres would naturally be an example of a point at which the orbiting planets would unfold in a perfect reversal of cyclic patterning. Otherwise, what rhythm would be significant at all?

The structures of number behavior in the so-called baseten system reveals a retrograde function in itself. This has been demonstrated in the synchrographic representation of Holotome E which is a geonumerical picture of the number 2520, the first and lowest number divisible by all eight base digits (one is not a number).

Base ten, then, is actually an octave with a 9th null event which occurs between nine and eleven or at number ten where the zero first comes into effect, by enspiraling the number continuum.

Since nine times eleven equals 99 and 49.5 is one half of 99, a perfect retrograde pattern occurs through the interaction of nine and eleven or 99 and its multiples.

What is musical notation without an instrument with a full octave range? Twelve-tone is the dominant alternative system.

(Crab Canon pages)

octave 1:2
fifth 2:3
fourth 3:4
major sixth 3:5
major third 4:5
minor third 5:6
minor sixth 5:8
minor seventh 5:9
major second 8:9
major seventh 8:15
minor second 15:16
tritone 32:45

NUMBER AND JUNG'S TRANSFORMATIONAL PROCESS

"Psychologically, the rotundum or mandala is a symbol of the self. The self is the archetype of order par excellence. The structure of the mandala is arithmetical, for "whole" numbers are likewise archetypes of order. This is true particularly of the number 4, the Pythagorean tetraktys. Since a state of confusion is generally the result of a psychic conflict, we find in practice that the dyad, the conjoined two, is also associated with the mandala."

C. G. Jung
Collected Works, Vol. 10, pp. 805

"A frequency of four events provides the three intervals that also form the base triangle of the tetrahedron apexed by the initially unpaired, angularly finite event. The insideness and outsideness of this primitively evolved tetrahedron constitute the minimum macrocosm-microcosm-differentiating system of the Universe. This tetrahedron has six angularly directional interrelationship lines interconnecting its four finite events."

Fuller, *Cosmography*, p. 45

In Pythagorean thought, number is considered the common ordering factor of both psyche and matter. Thus, the study of the inherent rhythms of the natural number

sequence was of paramount importance. There were specific numbers which were considered divine manifestations, and in fact corresponded with various gods. The studies of geometry, music, astronomy, and color were therefore sacred arts, as shown in the **Prayer to the Tetractys:**

"Bless us divine number, Thou who generatest gods and men! O Holy, Holy Tetractys, thou that containest the root and the source of the eternally flowing creation! For the divine number begins with the profound, pure unity until it comes to the holy four; then it begets the mother of all, the all-comprising, the all-bounding, the first born, the never-swerving, the never-tiring holy ten, the keyholder of all."

Plato and Pythagoras both dealt with geometry as an aspect of number, (triangles, squares, oblongs, rectangles, etc.). Plato, of course, has his series of ideal regular and irregular forms which naturally had a plurality (number) of faces and vertices.

The kernal of Pythagorean wisdom is contained in a primal BASE TEN ARRAY, the divine TETRACTYS, a pyramidal array of 10 points which contain a great mystery of universal nature. The TETRACTYS is made up of the numbers 1, 2, 3, 4, which add up to 10, arrayed in the form of a perfect triangle. This figure is also reflected in slightly different form as the qabalistic Tree of Life.

The four levels of the array contain not only the basic intervals--fourth, fifth, octave, and double octave--but also point, line, plane, and solid. The unequal numbers of this cryptic formula may be incomprehensible except to the initiated.

Psychologists such as Carl Jung and Edward Edinger have explicated its psychological meaning and symbolism as an expression of the epitome of the process of personality development, with four stages and three steps of transition.

(Insert graphic of TETRACTYS containing VECTOR EQUILIBRIUM)

The matrix of the Tetractys represents a qualitative field--dynamic internal structure. In it the ontological and logical ordering of numbers is translated into rhythmical and geometric images. There is no need to invoke the numerals as elements of an infinite series, but rather we imagine them as the "ensemble" of a finite series.

According to Jungian analyst Marie Louise vonFranz in NUMBER AND TIME (19), *"The preconscious aspect of natural numbers points to the idea of a numerical field in which individual numbers figure as energetic phenomena or rhythmical configurations. This 'field,' which we take to represent the structural outlines of the collective unconscious, is organized around the central archetype of the Self.*

For this reason historical mandala structures deserve particular attention. In corresponding "cosmic models" and mathematical representations of God, the first four natural numbers predominate to an exceptional degree, just as they did in the systematic divinatory techniques of the past."

Plato and Pythagoras both dealt with geometry as an aspect of number. Plato's series of regular and irregular forms naturally had a plurality (number) of faces and vertices. In

PQM terms, "the forms" of Plato are, perhaps, robust attractors in the super quantum gravity potential of the three-geometry of our actual expanding universe. They represent "eternal values," whose content can theoretically be imprinted upon and influence the quantum mind field.

Jung found a vast psychological significance in the number four. Jungians conclude that *"mankind's repeated attempts to establish an orientation toward wholeness possess a quaternary structure, and appears to correspond to an archetypal psychic predisposition in man."* vonFranz, Number and Time, p. 115.

We can equate four disciplines with four modes of being: physics = physical; music = emotional; psychology = thinking; metaphysics = intuition. They equate with Jung's four functions of cognition: sensation, feeling, thinking, and intuition.

It is a cross-cultural phenomenon from sources as widely separated as the Chinese, Native Americans, Asiatic Indians, Incan and Mayan, and pre-Christian Mediterranean--this tendency to cleave to fourness in modelling reality. Some of the Pythagoreans regarded four as the essence of justice, being four-square in one's dealings.

According to Edinger, *"One of Jung's major discoveries is the psychological significance of the number four as it relates to the symbolism of psychic wholeness and the four functions. The significance of the quaternity is basic to his whole theory of the psyche, both as regards its structure and its developmental goal, the individuation process. We are thus particularly alert to quaternity symbolism as it appears in dreams and in the imagery of myth and folklore. However, there are other numerical motifs which are commonly encountered."*

"Jung describes Pythagorean number symbolism which is pertinent here. THE NUMBER ONE AS THE FIRST AND ORIGINAL NUMBER IS, STRICTLY SPEAKING, NOT A NUMBER AT ALL. One as unity and totality exists prior to the awareness of numbers which requires a capacity to distinguish between separate, discrete entities. Thus, "one" symbolically corresponds to the uroboric state prior to the creation and separation of things. Two is the first real number since with it is born the possibility of discriminating one thing from another. Two symbolizes the act of creation, the emergence of the ego from the original state of unity."

The Tetractys is inherent in our biology:

"The entire microcosm is replete with harmonic occurrences. The long strings of nucleic acid in DNA are structured precisely according to the Pythagorean Tetractys, the fourfold subdivision of the octave (octave, fifth, fourth and major second). The Pythagoreans attributed magic power to the Tetractys and called it sacred. This same structure is almost ubiquitous in those mysterious processes whereby inorganic structures are transformed into organic life," according to Berendt, p. 69.

The four-fold structure holds sway in physics as Minkowski and Einstein's four-dimensional model of the universe, and the four forces of nature (nuclear, electrical, weak interaction, and gravitational). It reminds of Fuller's notion that nature operates in +4, -4 event octaves.

Sometimes psychic and physical events coincide as synchronicities, revealing a "common meaning." In this case the nature of the psyche is revealed as the transcendent unity of existence using the rhythms of natural numbers. VonFranz tells us that, "*These numbers illustrated some of the most primitive and basic forms of the spirit. When we take into account the individual characteristics of natural numbers, we can actually demonstrate that they produce the same ordering effects in the physical and psychic realms; they therefore appear to constitute the most basic constants of nature expressing unitary psychophysical reality.*"

Number and Time, p. 303.

So, there is a common basis between numbers and the psyche. Numbers apparently order both the physical and psychic worlds.

Building on the diagram of the Tetractys, Edward Edinger imagines a +4 descent and a -4 ascent, a movement of the differentiating ego separating from undifferentiated objective wholeness into subjective experiential development, and then moving back toward the One in a recursive reunification. This echoed in the old alchemical axiom of Maria Prophetessa:

"One becomes two: two becomes three: and out of the third comes the One as the fourth."

Or another version:

"One, and it is two: two, and it is three: and three, and it is four: and four, and its is three, and three, and it is two, and two, and it is one."

These stages symbolize the transformational process:

"This first stage of the coniunctio...brings about the union of soul and spirit over and against the body; they link up as partners against the body. In the second stage, united spirit and soul reunite with the body. In the third stage, the previously united spirit-soul-body is now united with the world, and conversely (recursively) the Self, or source. This is characterized by independent autonomous being. Original unity has been differentiated into a fourfold multiplicity. After living fully in the world the task of individuation becomes the ascent back up through the number series of the Tetractys."

(insert diagram Edinger, *Mysterium Lectures*, p.282)

The Diamond Body:

Buckminster Fuller and The Qabala

by Iona R. Miller, copyright, 1992

IO [I/O] is the cry of the lower as OI [O/I] of the higher. In figures they are 1001, in Joy. For when all is equilibrated, when all is beheld without all, there is joy, joy, joy that is but one facet of a diamond, every other facet whereof is more joyful than joy itself.

Aleister Crowley, The Dragon-Flies

SACRED GEOMETRY:

According to most creation stories, out of primal Nothingness, the All or Everything emerges or emanates. Paradoxically, everything seems to come from nothing. How does nothing become something? Energy "crystallizes" into matter in the womb of empty space, a dynamic Void. Mass is simply a form of energy. This process is structured by an underlying, invisible, geometrical lattice. Actually, it is pre-geometric. Because it has no true physical existence, it is metaphysical (beyond physics). This threshold of matter, where nothing becomes something, is of great philosophical interest.

Actually, materialism (a natural philosophy) is a theory of metaphysics. It is metaphysical thinking to consider static matter as a primary reality. In fact, any attempt to describe reality is metaphysical speculation. In its dynamic form matter cannot be separated from energy. Energy is a property of matter, which can be considered potential energy. The mystic believes in matter, but believes it is more than science has yet discovered. Even before Western science began, mystics believed that mind, consciousness, or spirit is a property of matter. It hardly matters, philosophically, if you consider it as manifesting force or manifesting spirit.

The nature of reality is that matter-energy must be taken together. The theory of relativity conceives of this single substance as a distortion of the structure of space. Physicist Ian Barbour writes that, "...in quantum theory, separate particles seem to be temporary and partial manifestations of a shifting pattern of waves that combine at one point, dissolve again, and recombine elsewhere; a particle begins to look like a local outcropping of a continuous substratum of vibrational energy." That vibrational energy is governed by the laws of probability.

But what subtle forces underlie matter-energy and space-time? All form and power are latent within the void. *The Heart Sutra* tells us that, "Form is not other than

Void, Void is not other than Form." This implies that our human form is not other than void, and biophysics shows this to be true. Our physical makeup is largely emptiness. If we conceive of humans as being most fundamentally electromagnetic entities, instead of chemical beings, we can imagine our finer existence as wave-fronts in space. Our personal "space" is not utterly empty, but cannot be conceived apart from our matter exhibiting itself in particular ways, i.e. as "waves."

Yet, the void state, or primal matrix, is "cosmic zero," and proportionately our most fundamental reality. It is part of the surrealistic quantum realm. It lies within us all, for the relative space between our atoms is astronomical. This is the ground state of existence which mystics seek in their meditation, moving beyond mind and *maya*. It is that state of consciousness where outer perceptions cease, and consciousness is free to simply *be*.

Throughout the centuries, various geometrical forms have been revered as expressions or metaphors of higher spiritual truths. These sacred forms and symbols are a natural part of the collective consciousness which emerges in every generation. We project them outwardly from within our psyche because they are so fundamental to our existence. That apprehension is intuitive. Certain typical forms recur in meditation and ceremonial practice, worldwide.

When something emerges from nothing, it does so via non-Euclidean geometry, coming to occupy space/time. Einstein used non-Euclidean geometry to explain the relativity of time and space as the geometry that is produced by matter or matter by geometry. The perception of the transcendental or metaphysical aspects of geometry is intuitive. There are examples of philosophical geometry or geometrical philosophy from around the world. These traditions are found in India, China, Egypt, and Great Britain, to name a few.

Plato, Archimedes, and the Pythagoreans based much of their philosophical speculation around the nature of geometrical form, suggesting that mathematics and structural forms had ultimate status. Our modern science has never forsaken the tradition of seeking the understanding of forms that provide shape and meaning to physical reality. Euclidean geometry describes the nature of the human scale, but non-Euclidean models the cosmos and microcosm. More and more intricate forms of measurement became the basis of the scientific method. Eventually, this led to modern topology--the study of those properties of geometric figures or solid bodies that remain invariant under certain transformations.

Heisenberg explained that, "The elementary particles of modern physics can be transformed into each other exactly as in the philosophy of Plato." In "sacred topology", the relationships are more than metaphorical. Metaphysical and physical reality coincide. This is abundantly illustrated in R. Buckminster Fuller's geometrical *tour de force*, *SYNERGETICS I & II*. Fuller demonstrates, via synergetics, that the whole is greater than the sum of its parts, because of the relativity of forces. In our universe, as more complex systems are built up, new properties appear that were not foreshadowed by the parts alone. These emergent properties include life, conscious awareness, and beauty.

Plato's Academy in Athens had a policy: "You are not allowed to enter here, unless you know geometry." In the dialogue, *Meno*, Plato describes Socrates teaching geometry to a slave. In true Socratic form, he does not instruct him directly. Rather, he elicits knowledge from the slave which he did not know he possessed. The diagrams themselves elicit the buried intuitive knowledge of a world inhabited by the gods and by the divine "Forms."

In Plato's view, before birth we were familiar with purely mathematical "objects" and relations, as well as moral ideals or values. He alleged that we lost this knowledge at birth, but can recover it through revelation. For Plato, the virtues paled in comparison with the highest capacity of the soul, which is the mystical beholding of the eternal. Mystics tell us the divine is formless.

Actual space is not empty, but the possibility has always been a controversial problem in philosophy. Aristotle found the concept of a total void unacceptable. Scientists still cannot make a perfect experimental vacuum. Astronomy shows us that matter is averagely distributed, with roughly as much matter between the stars as there is within them. Yet, there are large voids in space, with stars clustered on the outer edges of these bubbles of void. The preponderance is of volumes of empty space over volumes of matter. So, the characteristic feature of the universe is not matter, but empty space.

Again, most of the interior of the atom is empty, as is the space occupied by the galaxies, and the vast regions which separate them. Stars, atoms, and the vacuum are a seamless whole.

The notion of the eternal nature of sacred emptiness is echoed in modern quantum theory. This is not ordinary, but dynamic and receptive emptiness. The central concept in Quantum Field Theory is that of the *field*, which exists everywhere and everywhen. It is a field of curved space/time. Matter is not separate from its surrounding space. The field can take the form of quanta or particles. It is the fundamental physical entity, the *only* physical reality.

The field contains the potentiality of all possible states or conditions in the universe. Of these states, the most fundamental is the Ground State, (or "vacuum state"). Matter is rare in the universe. Most of it consists of a very volatile, excited, ionic plasma. Only 5% of matter is neither too hot, nor too dilute, to congeal as a solid, liquid, or gas. This form of matter is so rare it has been described as 'trace contaminants.'

Yet, some form of matter is essential to all activity. All matter is in motion. Activity is the essence of being. From the "cosmic zero", everything -- the totality of "excited states" -- arises by creative processes. It is also the state into which everything subsides by absorption processes. The ground state is characterized by the fact that it stretches to infinity, uniform and changeless. It is the same everywhere and everywhen because of the identity of space/time. Within the universal field the values of the ground state and excited states are all one. An unlimited amount of

particles come into being and vanish endlessly. Matter is thus a temporary manifestation of the Void.

The so-called "cosmic zero" was modeled by geometer/philosopher Fuller in the figure he called Vector Equilibrium, (V.E.). It might actually claim to be the first "Buckyball," the one Fuller himself described. This geometry is the precursor of the new elemental 'Fullerenes.' The V.E. geometry has been recognized for a long time. It was one of the thirteen Archimedean solids, the cuboctahedron.

But the Greeks were fascinated with regular forms whose faces were all the same, such as the cube. They failed to understand the delicate balancing act the cuboctahedron symbolizes. They simply did not notice that Vector Equilibrium is pristine equanimity because they were looking elsewhere. The Greeks never really comprehended the energetic or energetic properties of Vector Equilibrium, i.e. dynamic stability. They had a static, non-relativistic view of natural philosophy.

It remained for Fuller to assert that, "zero pulsation in the Vector Equilibrium is the nearest approach we will ever know to eternity and god." The conceptual model is the closest our minds and senses can come to that cosmic realization, short of mystical revelation. Mind alone cannot fathom the depth of this Void. Geometry is a construct of the intellect.

The V.E. center is primal "emptiness." It is a mathematical anomaly where the normal laws of the space/time continuum break down. It is not a symbol of ultimate order. It looks like a very rational, orderly system, but it is ultimately irrational. It defies logic. V.E. is the breeder of wave-particle duality, the uncertainty principle, and non-locality at the quantum level. It is a zone of neutral resonance where waves can pass through waves without interference, according to Fuller. Yet, it never physically exists as a structure, since nature abhors a vacuum.

In quantum mechanics a system can never have an energy of exactly zero. There is no such thing as absolute emptiness. However, the minimal motion of the ground state is called zero point energy, or zero point motion. Cosmic zero exists, paradoxically, in the realm of the psyche (our conceptualization) and in quantum reality in the atomic nucleus expressed as force. It is the form of formlessness, the root metaphor. It also forms the roots of the cosmic Tree of Life, since there is a fine-to-non-existent line between organic and inorganic matter on the quantum scale.

Physics is the patterns of organic energy, all of which are dynamic, alive. Mass is energy, so the subatomic world is always restlessly in motion. Inert matter is full of motion when we look closely at it . The activity of matter is its essence.

Vector Equilibrium emanates/condenses from a center in twelve fundamental directions. This emergent energy moves outward through space/time in the form of a cuboctahedron, alternating with its mathematical reciprocal, an octahedron-within-a-cube. It is a truncated cube with 50 symmetrically positioned topological

features. Vector Equilibrium has the same surface area as a sphere, yet contains no volume, i.e. it contains "nothing."

The Vector Equilibrium system has 12 vertices, 8 triangular faces, 24 edges, and 32 planes. It is omnidirectional equilibrium, symbolically and physically speaking. As such, it is a perfect symbol for "holding the tension of the opposites," or "uniting the opposites." Yet, it is more than a metaphor. It is an archetypal image which bridges the macrocosm with the microcosm. It is a living example of the Hermetic Axiom, "As Above, So Below," uniting spiritual and literal reality. V.E. makes it possible to make conceptual models of other dimensions (hyperspace), mathematically and mystically.

In the V.E. figure, equilibrium between positive and negative is zero. It is the equalization of the forces of push/pull, radiation/gravitation, or tension/compression. Fuller alleged it "represents the limits of the mind's ability to conceptualize 'in'." For Fuller, all of space/time is undergird with a pre-geometric matrix, which is an infinite field of vector equilibria. An entire universe can be seeded from one V.E., self-generating to fill all space/time. There may be no ultimate physical building-block of matter, but there is one single entity that undergirds and composes everything in the universe, according to Fuller. The basic element of the universe is dynamic patterns.

This field constitutes a "cosmic blueprint" which Fuller called the Isotropic Vector Matrix (I.V.M.), a living continuum. The allocation of divinity to this "mother of all fields" marks its archetypal character. As a variation on the theme of Celestial Goddess, it symbolizes the embodiment of nature. Like a modern Isis, it iterates the theme of the underlying, inseparable cosmic web or net, connecting all. The living Void gives birth to all phenomenal forms. It pulsates with the rhythm of creation and destruction of material particles. Another goddess, Nuit, is the essence of Infinite Space. She is infinite energy density pervading the entire cosmos. She is the receptivity of the void to the wavelength of radiation. Adjusting the geometry of the void influences the propagation of radiation. The goddess Ma-at, or Balance, is another expression of the same universal V.E. energy.

The *Upanishads* identifies Brahman with the void:

Brahman is life. Brahman is joy. Brahman is the Void. Joy, verily, that is the same as the Void. The Void, verily, that is the same as joy.

The geometry of Vector Equilibrium is inferred from that of closest-packed spheres of equal radius. It just happens to be the geometry which underlies all matter since it is found in the nucleus of all atoms as sub-atomic force. Here, in the interior of the atoms, Newtonian physics does not apply. This is a probabilistic, acausal world. Here synchronicity prevails over chronicity.

This uniform geometrical field, with the property of Divine consciousness, is the basis for a geometrical model of reality spanning the abyss between the metaphysical and the physical. It is not the first model in history to attempt to do so.

There is an ancient geometrical model which shares a common framework with the Vector Equilibrium.

THE GEOMETRY OF THE QABALA

The ancient mystical system of the Qabala is formulated around the geometrical glyph known as the Tree of Life. This sacred geometry system came down to us through Judaism and Hermetic Philosophy. It is one of the main currents of thought in the Western Occult Tradition. A mathematically accurate image of the Tree of Life can be constructed by dividing a vertical line into four equal lengths and filling in four intersecting circles, using a fourth of the line as radius. The nexus points are the positions of the 10 spheres, and connecting paths join the centers of the spheres.

GEOMETRIC CONSTRUCTION OF THE TREE OF LIFE

1. Begin by imagining a vertical line, A-Z
 2. Divide the line into four equal segments.
 3. Using the segment length for a radius, inscribe four interpenetrating circles whose centers lie along the vertical line. These represent the Four Worlds, or Planes of existence.
 4. The points-of-intersection are related to the numbers of Spheres on the Tree of Life as diagramed 1 - 10.
 5. With vertical lines (Red) join 3-5-8 for Left-Handed *Pillar of Severity*; join points 2-4-7 for the *Pillar of Mercy*. Line 1-6-9-10 forms *THE MIDDLE PILLAR*.
 6. The blue lines mark the paths between the Spheres.
-

The spheres represent states of consciousness or ways of being, while the paths are ways of transition or change. It symbolizes all ways of being and becoming. Like the quantum field, it contains the potentiality of all possible states or conditions in the universe. It is just the ancient way of saying it, and it turns out to be physically provable. The ancient model coincides with state-of-the-art physics. The 10 spheres and 22 paths yield a total of 32 planes of reference, like the Vector Equilibrium.

This "tree" was first described in writing in the *Sephir Yetzirah*, or *The Book of Formation*. Legend says the book came to Abraham, from God, through an angel. Today, we might say it was "channeled" from a divine source. Jewish scholar, Gershom Scholem dates the work around the third to sixth century. However, there is some astronomical evidence that the system does date from the time of Abraham, approximately 4,000 years ago.

Whether the patriarch was the first to receive the revelation, or not, this archetypal consciousness map encodes a system of spiritual wisdom and growth in geometrical form. It describes the nature of the universe, consciousness, and the creation. It seems to have intuitively anticipated the discovery of the physical nature of reality. The glyph itself was used as a meditation device by students of the Qabala, an oral wisdom tradition. One aim of the qabalists was to see the Tree always, everywhere, in everything. Another essential doctrine of Qabala is that humans possess a "spirit body" that can detach itself from the physical body and ascend to higher planes.

Most modern students of Qabala are familiar with the standard 2-dimensional representation of the Tree, which is drawn "flat," even though the circles are always conceived of as spheres. There is also a long tradition of a so-called 4-dimensional Tree of Life diagram, based on *The Book of Formation*. This geometrical figure consists of two interfacing pyramids surrounding a central core, within an enclosing cube.

This octahedron-within-a-cube happens to be the crystal structure of diamond, a face-centered-cubic lattice. Recalling that Abraham is also the patriarch of the Moslems, it is interesting to note reference to a spiritual body, a "diamond body", in the writing of Shaikh Amad Ahsa'i from the 13th century. Speaking of a substance akin to that of the medieval Philosopher's Stone, he equated the "diamond body" with the "Resurrection Body" of the faithful believer in the Paradise of the future Aeon.

For the Qabalists, meditation on this figure provided a mystical body as a vehicle for consciousness in imaginal space. This diamond body was used during meditation to enter the inner court of Divinity, symbolized by the center of the figure. Here the Beginning and End of time are co-temporaneous, space ceases to be a hindrance, and the mystic beheld the ecstatic vision of the Lord on His Throne. The geometry was a "gateway" to another dimension of experience.

This Alpha-Omega point has all the physical qualities of VectorEquilibrium. The ancient meditation practice was known as Merkabah mysticism, and those who practiced it called themselves, "Riders in the Chariot." They claimed to see into the future. This insinuates that the figure is a "vehicle" for moving consciousness through imaginal time and space. It seems to be a metaphysical "time machine," or inter-dimensional gateway.

As in most design or mandala meditations, the aspirant pictures him or herself at the center of the figure through visualization, contemplation, and identification. Through this process of centering, these mystics came to know themselves and God.

Perhaps they learned, as Fuller later discovered, of the unusual anomalous conditions of perfect equilibrium. This meditation provided a specific technique for escaping from time. Its realization meant instantaneous enlightenment, a paradoxical leap out of Time. It yields transcendence.

Occultist, Paul Foster Case published an array of this type in his book, *The Tarot* (1947). Aware of the ancient mystic practice, he included the figure in his study of Qabala, calling it alternately the Key of the Cosmos and Numbers, or the Cube of Space. Again, we have the form of the octahedron-within-a-cube. Vector Equilibrium and the Cube of Space are mathematical duals, or reciprocals of one another. They "jitterbug" back and forth as the figure grows outward to fill all space. They are two ways of looking at the same geometrical phenomena.

Case pointed out that its construction was based on the six-pointed Star of David, (or Shield of David), also known as "The Star of the Macrocosm." His descriptors of zero as a sacred, empty, consciousness field reiterate the qualities of Vector Equilibrium.

Zero is a symbol of the absence of quality, quantity, or mass. Thus it denotes absolute freedom from every limitation whatever. It is a sign of the infinite and eternal Conscious Energy, itself No-Thing, though manifest in everything. It is That which was, is, and shall be forever; but it is nothing we can name. Boundless infinitely potential, living light, it is the rootless root of all things, of all activities, of all modes of consciousness. In it are included all imaginable and unimaginable possibilities, but it transcends them all. The Qabalists call it: (a) No-Thing; (b) The Boundless; (c) Limitless Light. Pure Conscious Energy, above and beyond thought, to us it is Superconsciousness.

With their fascination for completely regular figures, the Greeks devised a way of establishing XYZ coordinates within a cube. Our science and method of orientation has been stuck with that model ever since. However, nature's own most economical coordination is in triangles and tetrahedra, rather than squares or cubes. VectorEquilibrium is more in line with modern Quantum Mechanical models than the Newtonian XYZ. It expresses more degrees of freedom.

So, close examination of the underlying geometry of the Tree of Life reveals that the ancients were not lacking a very deep intuitive awareness of the true structure of matter and the universe. The underlying geometrical matrix of the multi-dimensional Tree is, in fact, Vector Equilibrium. To find the commonality -- the harmony --the figure of the V.E. must be subjected to a transformation process, i.e. rotation.

To bring the two figures into synch, simply rotate the V.E. to any edge of its containing cube. If the 3-dimensional V.E. is drawn flat, the inherent geometry of the Tree of Life is immediately revealed, including some of the so-called "hidden" paths.

A symbolic representation of the optimal union of opposites, it means in psychological terms, "holding the tension of the opposites." This is the essence of the Tree of Life. The theme of union of opposites has reverberated down through the ages. It was the process/goal of alchemy, creation of the Philosopher's Stone.

Now, Jungian psychology carries the torch of this philosophical pursuit. Both Vector Equilibrium and the Tree of Life express this most elegantly and economically in terms of minimal graphic elements.

Diagram of Tree of Life nested within a Vector Equilibrium.

By combining the vectors of a V.E. nested within a cube, it is possible to derive the nexus points on which to construct the entire Tree of Life. In *The Anatomy of the Body of God*, (1925), Frater Achad, (magickal name of Charles Stansfield Jones), revealed an amplified Tree of Life projecting from a center in six directions.

Rather than a flat depiction, his revelation showed Trees radiating in the four cardinal directions, plus up and down. This is another variation on the theme of XYZ coordinates. Yet, V.E. can be shown, once again, to be the skeletal matrix on which the figure congeals. The geometrical duals yield all the necessary nexus points to form the entire Tree of Life, including the 11th mystery sphere, Daath. Achad's advice for modern Qabalists says,

...since the "Tree" is everywhere the same in every part of space, once its general attributions are fixed in the mind, it is not well to confuse ourselves by too much attempt at progressed expansion of the idea. Rather we would return and contemplate the Centre from which All proceeds, thus obtaining the Pure Essence Here and Now.

This concept of a self-generating, self-iterating, all-space filling, crystalline system seems to herald the modern discovery of the fractal nature of the universe. Whether we look at the macrocosmic, mesocosmic, or microcosmic level, we find the same principle operating. By following any portion of the consciousness map "backwards" and "downwards" to the center, we have a conceptual means of entering that most pristine state of consciousness where All becomes No-Thing.

GEOMETRICAL IN-SIGHT:

These systems are virtually pre-geometrical. They don't really exist in nature, per se. Yet they are the invisible lattice, or barebones, of our physical and spiritual life, of all life and manifestations. In this pre-geometry we have a blueprint for the formation of all matter, all form. This is the geometry of closest-packed spheres in the nucleus of the atom.

Yet, Vector Equilibrium is more than an expression of nuclear forces. It is "an endlessly interlinked chain of atomically self-renewing links of omni-equal strength or of an omni-directionally interlinked chain matrix of ever renewed atomic links, "according to Fuller. No single configuration of matter persists indefinitely. All is change and recombination. V.E. describes the most economical lines of movement within the atomic nucleus. And, it also is the structural matrix of a very ancient and sophisticated consciousness-changing technology. Through it we remember deep knowledge of our true nature.

Noting the metaphysical aspect of physics, physicist Wolfgang Pauli said, "We should now proceed to find a neutral, or unitarian, language in which every concept we use is applicable as well to the unconscious as to matter, in order to overcome this wrong view that the unconscious psyche and matter are two things. "

We have, in the V.E. model, a language or information transfer system that bridges both the physical and the spiritual, Fuller says, "In this model the physical and metaphysical share the same design." The mundane and supernatural share the same design: "As Above, So Below." It creates a mystical revelation described as ecstatic, blissful, joyful, transcendental.

Goethe's Faust opens with the mage contemplating the qabalistic, geometric design of the Macrocosm:

*What jubilation bursts out of this sight
Into my senses--now I feel it flowing,
Youthful, a sacred fountain of delight,
Through every nerve, my veins are glowing.
Was it a god that made these symbols be
That sooth my feverish unrest,
Filling with joy my anxious breast,
And with mysterious potency
Make nature's hidden powers around me, manifest?*

*Am I a god? Light grows this page--
In these pure lines my eye can see
Creative nature spread in front of me.
But now I grasp the meaning of the sage:
"The realm of spirits is not far away;
Your mind is closed, your heart is dead.*

*Rise student, bathe without dismay
In heaven's dawn your mortal head."*

(He contemplates the symbol.)

*All weaves itself into the whole,
Each living in the other's soul.
How heaven's powers climb up and descend.
Passing the golden pails from hand to hand!
Bliss-scented, they are winging
Through sky and earth--their singing
Is ringing through the world.*

In Aion, psychologist Carl Jung reiterates the identity of psyche and matter:

Psyche cannot be totally different from matter, for how otherwise could it move matter? And matter cannot be alien to psyche, for how else could matter produce psyche? Psyche and matter exist in the same world, and each partakes of the other, otherwise any reciprocal action would be impossible.

To know ourselves is to know the nature of cosmos. The yogis and masters tell us that matter is mind or consciousness at its most fundamental or gross level. From the dawn of history mankind has employed sacred geometries for metaphysical orientation and creating consciousness maps. Most maps of the psyche imply a "journey" either to the heights or depths of experience. Long ago Heraclitus alleged, and mystic artist William Blake agreed, that the way up and the way down are one and the same.

Metaphysical models usually speak of an ascent to utopian heights or "inner planes." Psychological models are usually concerned with descents into the subconscious depths and use subterranean imagery. These depths were the familiar territory of shamans for millennia. Both the occult and transpersonal psychology models include heights and depths of human experience. Maslow introduced the concept of "peak experiences" to psychology.

We may have the erroneous idea that peaks, or heights, or "highs" are "good." This is mainly because we are enculturated to strive upward. This is only one of a myriad of states of consciousness, and it belongs to manically over-achieving heroic ego. Negatively directed, this same energy can produce an all-time high in a sociopath or criminally insane personality, during a heinous act. All that is "up" is not "good"; and, all that is "down" is not "evil." This misapprehension is the root of the notion of a spirit/matter duality, where all matter is inherently "evil". In this belief system, "we exist: therefore we are sinful." Yet, our heights and depths contain the first-hand experiential knowledge that 'we are one.'

This old system of orientation and modeling the universe, with its ascents and descents of the soul, was adequate for many years. However, for the modern individual, with a consciousness that is not earth-bound, the old hierarchical model

is no longer the best metaphor. Today we are not confined to the spectrum of reality dictated solely by our finite senses.

We are directly aware of physical realities ranging from the sub-atomic to the cosmic. Our perceptions are amplified with technology. New ways of seeing lead to new philosophical perspectives. We can align our mystical worldview with physical reality. The true nature of physical reality remains a mystery. Even for physicists, it has a

PART ONE

SYNCHROGRAPHICS

&

THE AURIC KEY

The Auric Key

Prelude to Terms and Procedures of the Auric Key

Sequence of Discovery

The Structure of Numbers

The Study of Synchrographics

The Auric Key: A Poemgraph

The Auric Key as an Outgrowth of Synchrographics

SYNCHROGRAPHICS

and

THE AURIC KEY

"Beauty--art is largely a matter of the unification of contrasts. Variety is essential to the concept of beauty. The supreme beauty, the height of finite art, is the drama of the unification of the vastness of the cosmic extremes of Creator and creature."

Author Unknown

That which we call Truth, or Reality is metaphysically dependent on whose truth and which reality. Quantitative notation and geometry are the conceptual tools by which we formulate our standard of physical description and dialogue, i.e. systematic science.

The first concern of synchrographics is maximum information expressed via minimal graphic elements. Correspondences, such as those between geometry, number, and color, and frequency of divisibility form an integral part of the system.

There is some agreement among astro-archaeological historians that the earliest evidence of technological civilization is a mere 6000 years old. The author is concerned here with the original metrological formula (founded upon measurements of the earth and precession of the equinoxes). Our present technological situation is founded on these systems of measurement and their geodesic bases..

Reflecting on his thirty year study of the synergetic interaction of number and geometry via synchrographics, Marshall (as author of the Auric Key) realized that the system of number regard he had investigated for half his lifetime produced the exact same system of metrology that had initiated and proliferated industrial technology, during the historical era.

THE AURIC KEY is the rediscovery of the original program of the alphanumeric system of notation and the fundamental platform of general science.

Whether the Auric Key is of local or extraterrestrial origin (as Zecharia Sitchin might argue for Mesopotamian number wisdom and astronomical knowledge), is open for further inquiry. Radical discoveries are a source of continual reevaluation of historical opinion.

The Auric Key is a remedy for verbal deficiency in describing how a cyclic base evolves to cyclic accumulation of quantitative notation, in a +4, -4 octave wavecycle.

The scientifically systematic principle which synchrographics rests upon is of such simplistic design that we cannot help but wonder why such an obvious psychological tool was not used through the centuries for teaching. All of the individual elements that comprise this discipline were well known from deepest antiquity.

What we call numbers are a continuum of a finite set of graphic signs which form a cycle which is determined by the quantitative amount of the base set or primary individual signs. Inasmuch as neither zero nor one are numbers in themselves divisible, that which we call baseten is actually an octave set of actual numbers (members). Pythagoras also did not consider the duad (dyad) a true number.

In regards to the cyclation of number, only an octave can progress in what would be termed an exemplary cycle or a cycle that may progress in an unbroken compounding of cycles. The exemplary wave is an escalation of null event lapping of each cycle to the next.

In our usual regard of the base ten number we see the addition of each digit as the point at which the cycle begins anew.

It is at this very point where serious confusion occurs in that this "point" is being counted as a member. It is merely a position upon which the cycle revolves and therefore may not be included in any terminal tally of quantitative magnitudes, i.e. 100 equals 99.

R. Buckminster Fuller treated this problem by calling base ten an octave with a ninth null event. The null event was regarded as nine being the proxy of the one that he counted as a legitimate number.

I show this octave cycle in a very different way: when one considers the multiples of nine and disregards the initial none, the octave cyclation becomes quite clear:

Between 45 and 54 a reversal occurs and the four following multiples are retrograde companions of the prior four multiples, i.e. four forward and four reverse event octaves.

This shows that base ten is actually base eight, an octave loop.

In view of the foregoing, the nave or turnaround point of the octave is at 49.5. It is NOT 50, as claimed by Fuller, and never subsequently corrected in SYNERGETICS III, as he would have liked.

The symmetrical perfection of synchrographics results from the expedient of reversing the octave between numbers, instead of upon a number. Turnaround is at 50, between 49 and 50.

THE AURIC KEY

2520 is the first and lowest numerical sum which is divisible by all eight basic numbers.

By the simple expedient of de-strapolation by the first 4 prime numbers, we discover the Holotomic Sequence:

$$2520 - 7 = 360 - 5 = 72 - 3 = 24 - 2 = 12$$

E D C B A

By extrapolation of the Zodiac (#12) by the prime numbers in their natural order of appearance, we produce the sequence of discrete quantities that are the minimal sums to accommodate the maximum amount of consecutive factors of division.

This presents the maximum data in a graphic context with minimum elements of informational referencia.

Each subsequent Holotome retains all of the data of its father plus one added degree of data content, retaining coherency of the interrelationships existing in and between the members of the primary series.

This natural system of coherent number behavior/structure was know to those who programmed the infrastructure of the Sumerian culture 6000+ years ago.

The most direct association of the work of Zecharia Sitchin and the Auric Key is his notation (translated from cuneiform) of the Sumerian knowledge of the exact duration of the precession of the equinoxes as only recently confirmed by state-of-the-art astronomical tooling. It indicates a source in prehistory for all the key numbers of the Auric Key: $72 (C) \times 360 (D) = 25920$

Prelude to Terms and Procedures of the Auric Key

The term **AURIC KEY**, chosen for the prefix AU which in Latin forms the word audio as in sound, while in Greek forms the word aura as in light, suggests the relationship between the eyes and the ears or seeing and hearing. It also derives from *aurum*, or gold, implying a golden key.

The term Numeronomy derives from a concept requiring a trifle more explanation: as a term of scientific validity, it refers to the interdependence of

geometrical and numerical notation, neither of which could produce valid equations without the existence of each other.

These two disciplines, quantitative notation and qualitative notation are in essence two sides of the same coin. The first Pythagorean rectangle, 3 measures by 4 measures, produces a hypotenuse (diagonal) of 5 measures which affirms a synchronicity of the quantities 3, 4, and 5 with the quality of rectangularity, which in effect produces a synchronetic unity of number and geometry.

$3 + 4 + 5$ produces the quantity of twelveness, which is so fundamental in Syndex Theory, as Holotome A. There are many ways to describe the synchronetic quality of a circle divided into 12 thirty degree sectors. For the purpose at hand, we prefer to draw attention to a square divided into a grid of sixteen subsquares which when enclosing a circle of 12 thirty degree sectors shows the grid lines intersecting the circle at exactly thirty degree intervals.

Sequence of Discovery

The semi-arbitrary answer to the question of why some unknown and ancient geometer selected 360 degrees for equating a circle has been that 360 has more than the usual amount of divisors for its size. This is far from a complete, specific, and logical answer.

As a matter of fact 360 is divisible by all base digits except prime number seven and when we multiply 360 by prime number seven, we produce 2520 which is the first and lowest number divisible by all base digits.

This odd result might make us stop and think:

Since by multiplying 2520 by the next prime we receive another palindrome followed by a zero, i.e. 27720, we naturally decide to destrapolate this sequence to see where it begins:

$$27720 - 11 = 2520 - 7 = 360 - 5 = 72 - 3 = 24 - 2 = 12$$

Since these are the exactly most often cited numbers of ancient metrology, we have arguably discovered the long lost key to the basis of ancient metrology or numeronomy.

To amplify this claim, we have only to note that 12, 24, 72, 360, 2520, 27720, etc. are the exact sequence of minimal sums that accomodate the maximum amount of consecutive divisors (factors of division). Because to my knowledge, no one else has discovered the complete and rational answer to the selection of 360 degree circular unity, I claimed the right to entitle this the **Holotomic Sequence**.

In the Holotomes and Holotomic Sequence we see that the more-than-the-sum-of-its- parts quality of natural numbers emerges. They reveal the higher complexity integrity of the newly emerging system. This complexity system preserves in its integrity-memory a complete history of self-organizational instruction. Its success

and longevity can be anticipated by the great degree of economy which it expresses with the least of resources.

In synergetics, the components and aspects of synergy do not work separately, but function together as a single systemic event: The Auric Key. Thus, the Auric Key functions as quasi-intelligence informing rational number; this holonomic instruction gives any system its inherent intelligence to find its place and function in continued self-organization of its evolution.

Shortly after this revolutionary observation, I realized that #6 is exactly half of the first true Holotome. This makes the first perfect number the nave of Holotome A (i.e. 12).

The complete role of geometry and numbers in our grasp of reality and nature has been for centuries only partially acknowledged. A comprehensive system that coherently reveals the transdisciplinary relationships between music, ancient pyramids, esoteric numerology, astronomy, chemistry, physics, and architecture has until recently remained virtually ignored.

Marshall's vision provides the basis for a common vision: a key that unlocks conceptual doors and enables us to regain the vantage point our ancient ancestors presumably once possessed.

The Structure of Number

The Auric Key excavates many vital properties of numbers. The frequency of synchronicity is any whole number factor and factors of divisibility within the limiting range determined by the base digits. One (1 = singularity) is regarded as a special case.

Number One is an indivisible integrity. Singularity is operationally irreversible. Number Two is an affinity-evolvable informational duality; self-generated reciprocity.

In our investigation of the creation of matter during the birth of the Universe, we have begun at singularity. While at singularity, the point of integrity has no physical dimension, it has metaphysical dimension and content of potentiality. In other words, we can consider potentiality as the content of integrity-singularity in the metaphysical dimension once-removed from physical reality.

The number field is holonomic, containing all things, encoded in the simplest and purest metaphysical pattern of informational potentiality. Numbers are a projection of evolving, expanding potentiality. We can go backwards toward the point of integrity/singularity into the evolution of its potentiality, which has no physical properties, but which is a seed potential. This is relatively easy to illustrate with tetrahedral geometry.

Singularity is irreversible. The sign, [*insert symbol*], represents a reflectional transaction, or the reversing of a function that passes through the infinitesimal, yet omnipervasive site between every numerically relative symbolic event. In the empirical sense, it means the inversion or reversal of the image; that transaction which occurs to images reflected from a mirror or the surface of a dark pool of still water.

In respect to the behavior of numbers, we know that reversal is a basic element to any system employing zero as a null state between plus and minus, for plus and minus are essentially the opposite or reversal of each other.

, then, is the zero with an extra quality decreed by Syndex routine. That quality is the direction of positive quantity. For even though zero is void of quantity itself, it still contains which way the quantity/unquality is relayed through its situation. That is, where zero is merely a location, is a situation for it incorporates direction.

Thus, as a mathematical entity, (incorporates and) involves aspects of number structure that are otherwise not considered by the classical definition of the zero expression.

Our usual regard for one (1) as a number also creates a logical omission. This is likewise considered in the use of the Syndex character .

Two (2), then, is the minimum element of reflectivity for each side (site); it is the essential twin as it can be divided and multiplied by itself, whereas one (1) cannot.

Example: $2 \times 2 = 4$
 $1 \times 1 = 1$

Meaning plus two (2) is the first full positive, divisible and multiplicable unit and minus two (2), its reverse mate.

In view of the foregoing considerations, we must allow that singularity is not reversible and polarity (2) is the minimum experience of numericity.

Thus, frequency is the amount of base digits that evenly divide any given number, (1 excluded). Synchronicity is the specific combination (array) of base digits that dictate the frequency. The higher the frequency, the greater the universality of the number. The term "fold" indicates the specific incidence of divisibility.

On the right hand side of the composite graph is a coded strip that shows visually the frequency of synchronicity of numbers 2 through 144. To the right of the number column are the eight color-coded tracks isolating the synchronicity of these numbers. For example, the number 72 is evenly divisible by 2, 3, 4, 6, 8, and 9. It thus has a six-fold frequency of synchronicity and has six white spaces to

its right in the corresponding number tracks, which start at the base of the coded grid.

Note that since every other number is evenly divisible by 2, there is a white space in every other position in the 2 (red) track. The same principle applies to subsequent tracks; there is a white space every third position in the three (orange) track, etc. The term "null frequency" is used in conjunction with the incomplete concept of a prime number.

The colors chosen to represent the right frequencies are of two kinds: chromatic and metallic. The first six refer to the natural chromatic spectrum, while the seventh and eighth refer to the metallic colors of silver and gold. One, (singularity, not an operational number at all), is white and has no set frequency since it is a special case. It can, in fact, be said to occupy all positions.

To the immediate left of each number on the column is a corresponding horizontal tag that is coded to show the frequency of that particular number. The frequency of numbers is regarded essentially as their degree of primeness and... "non-primeness." A null-frequency number, 23 is designated with a black bar to its left (11, 13, 23, 97, 121, 137) and generally those numbers classically referred to as prime. Notice that 121 is not prime, as such, being divisible by 11.

There is a crucial distinction between the null frequency and the prime, one of conceptual essence. By standard definition, a prime number is divisible evenly by itself and one only. On the other hand, a null frequency number is divisible evenly by itself, one, and a limited set of primes that exceed the range of the base digits.

To the left of the strip is a series of horizontal bars whose color and length correspond to the frequency of a given number. A mono-frequency number is designated with a red bar to its left, a two-fold orange, three-fold yellow, four green, five blue, six violet, seven silver, and eight gold. All of the primes collectively constitute a subset of null frequency numbers, where the set of "nulls" is determined by the base.

The higher the base, the closer the set of nulls is to becoming identical with the set of primes, though they never totally coincide. In this context, the Auric Key shows the spectral relationship between high and low frequency numbers, and between null frequency and prime numbers. This eliminates a deeply rooted "either /or " dichotomy prevalent in the current notion of prime numbers, and basic assumptions regarding (or disregarding) the structure of number.

The first number that is evenly divisible by all nine base digits is 2520. This is the auric (golden) node (knot) that ties ancient wisdom with modern data. The pyramids, standing stones of Stonehenge and calendars of the Mayan and Egyptian civilizations are with us no less than our personal computers and atomic clocks.

2520 is exactly twice the number 1260, a number referred to cabalistically five times in the **Book of Revelations** (12:6 and 12:4). It is half of the number 5040,

which figures prominently in Plato's "Laws" regarding the architectural implications of his ideal city-state (and/or Atlantis).

These and other key sacred numbers (identified with intervals along the coded strip) reveal the unifying elements of the major religions. They frequently recur throughout diverse sacred literature, music and architecture. **Stonehenge** is a very special example containing a comprehensive collection of these special numerical ratios in a supereconomic context. All convey similar information that relates words with numbers, and numbers with the operation of the cosmos. Another example of this is the Hebrew Qabala.

The specially coveted numbers of each religion are crucial to the understanding of their esoteric teachings. They come from a time when guild secrets were defended to the death. More important, however, is the perception of the matrix from which they derive, the OMNIT.

If we spiral the nine tracks forming the coded strip, (extended to 2520), into seven bands of 360 places each, significant patterns inherent in numeric structure are clearly revealed. This is the prime form and function of Synchrograph A (Holotome E, 2520), the prime reference key to the lost doctrines of the neolithic and pre-classical eras.

The synchrograph A shows a split pentacle in the center. It is an extended translation of the coded strip in that each of the 360 places of each band (rotation) are designated with color where there would be voids in the coded strip. In spiraling the coded strip, both the coded number column and frequency codification were deleted.

Notice that at the midpoint of 1260, the configuration of digital formation begins to reverse, or mirror itself until it is perfected at 2520, the last number of the seventh band, and the first omnit of the base ten system. This, in addition to 2520 being the exact product of 360 and 7, strongly indicates that the selection of 360 by ancient geometers and metrologists as a basic circular system of reference was neither arbitrary nor the result of bad astronomy, as some have suggested.

The nine tracks, which the numbers make as they spiral outward in the synchrograph, form a pattern that visibly divides itself into **twelve sections (termed synchrostats) of 210 numbers each** (indicative of the criteria of 12 zodiacal signs). Common to the synchrostats is that they alone are divisible by 5, 6, and 7 (see chart regarding these) and these numbers are at the core of the twelveness that informed the ancient world of law, religion, commerce, etc.

When Fuller saw the hexagonal court at Baalbek, he remarked that the ancient Phoenicians had recognized his principles of tetrahedral synergetics.

Relationships with astrology (planets whose position lie in "trine," "square," "opposition," etc.) and chemistry are shown by meditation on the auric key. Spiralling the chemical elements of the periodic table shows some interesting

groupings. A version of this table is included in the composite graph. (insert THE CHEMISTRY PAGE).

Many common spacetime measurements (Metrology) that people take for granted, such as the division of space into miles, feet and inches, and time into hours, minutes and seconds, derive from unknown antiquity. Yet these unite into place within the seven-banded spiral, creating a symmetrical and satisfying sense of harmony.

To elucidate, when the second band ending number is added to 144, 864 is derived. Odd, indeed, that there are 86,400 seconds in a day and that the current astronomical measurement of the sun's diameter is 864,000 miles! 2160, the sixth band ending number, has long been taken to denote an "age of years," i.e. the Age of Aquarius, Pisces, etc., and is likewise close measurement of the moon's diameter in miles. Thus, space and time become equilibrated in a most mysterious, yet pleasing, fashion.

The Auric Key reveals discrete levels of finitude, a series of holistic, circular unities within the number field. Infinity, an often misunderstood word, cannot be classified. Lord Bertrand Russel pointed out the great paradox of analytical systems when he said: *"That class which includes all classes cannot be considered a class inasmuch as it is the only member."*

As a compliment alternative to infinity, the Auric Key points to the omnisynchronistic module, a crucial concept dealing with the expansive limitations of any finite quantitative system. It can briefly be defined as the number that accomodates (synchronizes) the maximum amount of consecutive numbers from one onward possible. It is thus the most universal number of all (a common denominator to all real numbers). There are larger numbers, but none with as high a factor of divisibility.

So, to repeat, the Auric Key shows relationships of finite, discrete levels of relationship as they are signified by numbers. Synergetics prefers the maximum information containment with the greatest economy of terms, and the Auric Key

fills this requirement.

The Study of Synchrographics

Synchrographics emerged from the notion that geometry and numbers are interwoven disciplines emerging from a mysterious but unified source. By isolating basic relations between number and geometry something may be learned about that source.

Holotome E (2520) may be considered the cornerstone to the various mandalogs that comprise the Auric Key and reveals the pattern of compound

synchronicities that occur in behavior of the base digits in all their permutations, which end at 2520. It begins near the center and spirals outwards, a process which reveals even more inherent symmetry and produces tantalizing rays. There are seven spiral bands, each divided into 360 subsections.

The conceptual discipline of synchrographics is both simple and complex. The many levels of graphing the relationships that exist between interdependent events and functions are possible.

A simple biaxial grid consisting of vertical and horizontal rows qualifies as a synchrograph of the initial order. Gregor Johann Mendel is noted as employing this graphic technique, extensively in his botanical investigations concerning hereditary transmission, which actually laid the groundwork for the modern scientific theory of heredity. This work formed the first step to the DNA logic.

What might be called the second order of synchrographics consists of a TRIAXIAL GRID or radial/axial configuration of three axes of interreference. This mode consists of a finite 360 degree radial quantum (Circular Unity). We cover it fully in PART FOUR as its own chapter.

Here it is enough to say that it is a finite axial extension that represents an ambidirectional continuum of reference. It is a tridirectional continuum in the form of an ambidirectional or counter-spiral that formulates the triaxial web of interdependent geometry of data which is otherwise referred to as the sunflower matrix, which encodes 618034.

(insert GRAPHIC OF SUNFLOWER)

By the simple addition of spiralic axes all of which share a whole number comensurate synchronicity, we explicate the full band continuum of synchrographics, in two dimensions.

The present investigations (of Neil Sloane at Bell Labs) that deal with the ideal distribution of points on the surface of a sphere is an intuitively misguided idea. His idea of multiplexing axes of interreference with the intention of creating additional axes of rational interaction only serves to protect intelligence by antiquated Euclidean absurdities based purely on Greek mythography.

A serious review of SYNERGETICS II shows that Fuller clearly discredits the idea of perfection of the sphere. Fuller has clearly demonstrated through various expressions of geodesic rationality that Nature does not provide us with even one example of a perfect sphere. The only exception is the idea of a perfect circle or sphere suggested by Plato.

Let us examine the seemingly perfect glassine soap bubble in terms of the surface "skin" on a colloidal level. Since triangular deployment of colloids cannot closepack on a curved surface only on a surface that is flat, our perfect bubble will by nature of space be a geodesic deployment of hexagons and pentagons .

In view of this, and Fuller's "twelve universal degrees of freedom" (which determine the perfect interaction of triangle-square interface of the dodecahedron and Vector Equilibrium Matrix.) we are forced by the laws of number/geometry to disregard ideal sphericity on any cosmic level other than imagination.

So quasi-sphericity is what we and nature have to deal with. Since we can deal with that in terms of quantitative notation, which does not and will not lie, we have what is required of super science. Some might contend that such science is a religion.

THE AURIC KEY

(A Poemgraph on the Nature of Number)

All SYNDEX **mandalogs (or number wheels)** are instrumental in the description of a system of number regard that is here termed Numeronomy. Links in ancient texts, sacred geometry, architecture, and the use of precessional “divine” numbers indicate that the use of such a system may have been known in ancient times, perhaps even before the dawn of written history in Sumeria. After all, mankind had already been surveying the heavens for some 50,000 years.

Syn dex reveals the nature of number, which nature reveals so beautifully in the synergetic structure of the natural world, which is based on the tetrahedron as the minimal structural form in nature and the Universe.

The primary tool of inquiry into this system is the synchrograph or mandalog. Mandalogs are composed of the graphic enspirament of numbers about circles divided into differing axial allotments. A few discrete examples of the synchrograph have been selected as the most prolific in exhibiting special data arrays displaying the geometrical nature of number. Primary among these number wheels are the **spiral of 2520**, known as the Auric Key; and the **spiral wheel of 108**, the **Hindu number of the universe, the number of Om and the numerical basis of the Yugas and Ages**. Scientific process depends upon numbers as legitimate tools regardless of what is recognized about their nature.

Synchrographics emerged from the notion that geometry and number are separate yet interwoven disciplines emerging from an essentially unified source. By isolating basic relations between them something may be learned about the nature of the source. Fuller discovered that, in synergetics, number is not an abstraction: each number has a geometrical identity as well as an inter-transformative numerical identity. This means that the number measurement of areas and volumes always comes out even, in whole rational numbers, without fractions or odd numbers left over.

Attending synchrographics is a formal discipline resulting from the requirement to simplify an otherwise too complex model. The model employs a color code index

to redefine numbers graphically. Any given number has a “frequency of synchronicity” which is determined by how many of the base digits will evenly divide a given number. And this is color coded in the number wheels.

Synchrograph A (#2520) consists of a nine-banded spiral that progresses seven times around a disc divided into 360 axial increments. Each of these nine bands are coded to show the occurrence of a base digit which is assigned a color in the place of the numerical figure itself.

Thus, the first band, representing base digit two has a red space at every second position and the second band has an orange space at every third space, etc.

Red 2
Orange 3
Yellow 4
Green 5
Blue 6
Iron/Violet 7
Copper 8
Silver 9
Gold Synch

Once this color code is assimilated, one may easily refer to any number and visually determine the frequency of synchronicity of the numbers by merely noting how many spaces are filled with a color. If no space is filled then the number is null frequency and has a black label.

0 space = null frequency Black
1 space = mono frequency Red
2 2 fold Orange
3 3 fold Yellow
4 4 fold Green
5 5 fold Blue
6 6 fold Violet/iron
7 7 fold Copper
8 8 fold Silver
9 9 fold Gold

Synchrograph A, 2520, ends at 2520 and has all nine spaces filled at that final station, completing a module of circular unity, a mandalog or holotome. Note that at 1260 (3 1/2 turns, or the **auric nave**) all spaces are filled except the one (number 8) and at this location the sequence reverses and begins to mirror itself.

(insert color graphic of 2520)

Synchrograph B consists of enspiraling 108 labels around a circle divided into six axial stations. By regarding these labels as numbers, we find that the multiples of six always fall on the sixth spoke, but the multiples of five and seven fall into counter-rotational spirals that synchronize at 35, 70, and 105. By extrapolating

beyond number 108, we find how these spirals will only synchronize with the number six spoke at 210.

This (210) is the first synchrostat, i.e. the first number divisible by 5, 6, and 7 (12 synchrostats comprise the auric node (12 x 210 + 2520). Or, if we regard the 108 labels as the chemical signs, we find that the inert gases always lie in trine, as will the best electrical and thermal conductors, etc. In effect, this arrangement is symmetrically consistent in its graphic regard of chemical classification.

(insert color graphic of wheel 108)

Synchrograph C consists of enspiraling numbers around a circle divided into 108 axial positions for 60 turns - or to number 6480, an ancient Hindu divine number derived from the Precession of the Equinox. This mandalog, like synchrograph B has two counterrotating spirals. A red spiral denoting multiples of 105 (multiples of 35) and a green spiral that denotes multiples of 111 (multiple of 37) and the engulfing number 108, is the third multiple of number 36. It has been found that the red spiral and green spiral will not meet at the engulfing axis until number 279720 is reached. This number is the key to the hypersynchronetic series.

$$\begin{aligned}279720 - 105 &= 2664 \\108 &= 2590 \\111 &= 2520 \text{ Auric Node} \\279720 - 35 &= 7992 \\36 &= 7770 \\37 &= 7560 \\279720 - 5 &= 55944 \\6 &= 46620 \\7 &= 39960\end{aligned}$$

Synchrograph D is a combination mandalog and synchrograph. Its configuration is result of comparing and analyzing the **Stonehenge** ground plan with the proven results of the synchrograph's mechanism. Thus **synchrograph D is a radial array of 56**, keyed to the 56 "Aubrey Holes" at Stonehenge.

When numbers are enspiralled around 56 axial positions, we find that the synchrostats fall only in the perfect axial quadrants, or east, west, south and north.

(Stonehenge groundplan, annotated)

The Auric Key as an Outgrowth of Synchrographics

As discovered by Robert Marshall, the Auric Key began as a modern day effort to illustrate the unique symmetry of numbers themselves. The graphic "rituals" culminated in the synchrograph we now know as **Holotome E (2520)**. In this graph every second square of the inmost spiral is highlighted, as compared to every third in the next, and fourth in the next, and so on.

Viewing the spirals additively (from inside outwards), the formation begins at one and continues until a number is reached where an additional track synchronizes, producing a number of higher frequency than any previous one.

For example, three tracks synchronize at #6, four tracks at 12, 5, and 24, and six tracks synchronize at 72. Close inspection of these positions, called synchronostats, show a reflective pattern that pivots at half the number being considered. These numbers already cited are, in fact called Holotomes. The only exception is the first, 6, which is the nave of the first Holotome (A).

The next synchrograph (Holotome F: 27720) has an 11 band spiral divided into 2520 sections. The pattern then perfects at 27720, a binomially reflective number which is the next Holotome after 2520. This pattern could be despiralated and extended vertically, but in so doing it would stretch to more than thirty feet! This shows the usefulness and economy of Synchrographics, which condenses otherwise extensive patterns while having other obvious advantages over row and column configurations.

As an alternate to infinity, the Auric Key points to the omni-synchronistic module. It depicts a crucial concept dealing with the expansive limitations of any finite quantitative system. It can be briefly defined as the number with the greatest amount of consecutive divisors from one onward and is the most "universal" number of all.

The omni-synchronistic module is a web of relationships that exist in the first 28 Holotomes. A compounding of the relationships that occur, for instance in Holotome E (which deals with the permutation possible with the eight base digits), is shown by the fact that 2520 is the smallest number divisible by all eight base digits. The number 2520 is a common denominator of several religio-mathematical systems.

The following is a list of historically important numbers prevalent in the Auric Key:

5040 - found in Plato's "Laws" describing the dimensions of his ideal city/state.

1260 - referred to five times in the Book of Revelations and prevalent in ancient music theory.

360 - the number of degrees in a circle; $360 \times 7 = 2520$

60 - basis of the Babylonian number system; is evenly divisible by 2, 3, 4, 5, and 6.

12 - the twelve signs of the Zodiac, months in the years, hours on the clockface, etc.

The Auric Key unites these seemingly disparate entities under a single graphic theory.

In a letter to Robert Marshall, Buckminster Fuller comments on Plato's use of the

number 2520:

"Plato does not say why he is concerned with the number 2520, but it is easy to discover as the product of the conventional 360 degrees of a circle being multiplied by the prime number seven, the circle's 360 degrees having included the first three primes to wit, two, three, and five, wherefore omission of the seven in the inherently octaved Pythagorean physical demonstrations of musical note progressing of tensed strings rendered inherently all irrational. The cyclic calculating referenced to the Babylonianaly adopted 360 degrees as the comprehensive quotient of nature's cyclic behaviors..."

Also prevalent in the Auric Key is the number 56. The architecture of Stonehenge is based on a circle divided into 56 sections. $56 \times 45 = 2520$, and 45 and 56 appear in the exact middle of a list of the factors of 2520 (Holotome E).

Could it be that those unknown architects who built Stonehenge used 56 as a practical reduction from an ideal circle of 2520 subsections? The relationship between the Auric Key and Stonehenge does not appear to be coincidental. That Stonehenge probably served as a gauge of celestial phenomenon is well known.

But is there yet another element pertaining to this megalithic structure? Because of its ruined state, it is difficult to know what the exact dimensions of Stonehenge were when it was built. As a result, different theories have arisen as to its possible uses. The discrepancies in its dimensions allow for varying interpretations. Questions arise as to just how precise a celestial gauge Stonehenge was. Its configuration has an elegance which rules out its inadvertent construction.

In light of Synchrographics, Marshall has propounded a basic theory which states essentially that Stonehenge was a device for optimally expressing several mathematical relationships, as such.

The distinct possibility exists that the Stonehenge architects purposely sacrificed a certain degree of accuracy in describing specific phenomena, in order to accommodate the expression of several unique phenomena and relationships. Were this the case, and there is supporting evidence, then the Stonehenge architects were concerned as is Synchrographics, with the optimum expression of information within a given confine.

The geometry of Stonehenge consists of whole numbers. The description of nature and the cosmos in terms of whole numbers was a concern not only of the Stonehenge builders and Pythagoras and his followers. Syndex has rediscovered a comprehensive system which shows numbers as they truly appear in nature, apart from our useful but somewhat arbitrary mathematical practices.

SYNERGETICS, the revolutionary system of mathematics, formulated by the late Buckminster Fuller, emerges directly from the geometry and numbers employed by nature. Fuller contends that nature uses only whole rational numbers, and his

geodesic modelling never requires resorting to irrational, unresolvable sums, such as pi. Synergetics deals only with experientially demonstrable phenomena.

"Synergetics uses simple geometrical models based on a few basic modules that fit together in the most logical possible ways. Synergetics uses whole numbers, completely eliminating all irrational, imaginary, and irresolvable numbers and complex formulae...Synergetics, alone among general systems theories, models Universe using only frequency and angle."

After Marshall's conception of Synchrographics, certain interesting correlations arose between these two disciplines.

One common feature of both systems is the definition of large multi-divisible numbers. These include the super-Scheherazade number of Synergetics and the omni-synchronistic module of Synchrographics.

In reference to numerical structure, and particularly to the super-Scheherazade number, Fuller states:

"There is a basic wave running through the second powering of all number up to 50 and returning to zero. The wave series is 24 integers long. I'm confident that the circle consisting of the 71 integer number

616,494,535,0,868,49,2,48,0,51,88,27,49,49,00,6996,185,494,27,898,13,35,17,0,2
5,22,73,66,0,
864,000,000

is the number employed by universe as the comprehensive circular unity by virtue of which all interoperation of all numbers will always come out in whole rational results."

Elsewhere (**Cosmography**, 1992), Fuller tells us that this number can be used as the number of divisions of circular unity.

"This number embraces a minimum n number of all the prime numbers involved in evolving all trigonometric functions and all the surface and volumetric spherical system intertransformings of synergetics."

Multiplying the fourth, fifth, and sixth prime numbers-- 7, 11, 13, which superstition labelled "bad-luck" numbers--produces the 1001 Nights.

As Dr. Fuller suggests, the occurrence of a basic wave is significant. It shows that despite their discrete nature numbers-as-integers have wave-like properties. Not only is there a basic wave running through the second powering of numbers, but there is an abundance of waves occurring on all levels of numbers. **The super-Scheherazade number in its finite aspect shares identical properties with the Holotomes previously described. What they share precisely is that both represent discrete levels of finitude.**

As previously stated, Bertrand Russell spoke of the paradox of referring to infinity:

"That class which includes all classes cannot be considered a class inasmuch as it is the only member."

The omni-synchronistic module helps resolve this deeply embedded paradox. It allows us to graphically, and directly perceive the number behavior of the universe.

As Dr. Fuller continues in a letter to Marshall, ***"Nature is always operating in her own modular system of four progressively additive then progressively subtractive event octaves, with a ninth null event altogether constituting an octave nine system, all of which relate physically to two, four-vertexed each tetrahedra, as the tuned in tuned out, minimal structural experience of universe."***

To understand this more thoroughly, bear in mind that the tetrahedron is a solid made up of four equilateral triangle faces. It contains the least amount of volume per unit of surface area and is considered by Fuller to be the basic building block of universe.

The Auric Key excavates many vital properties of numbers. It's very existence and ultimate form hinges on numbers which occupy space. By arranging numbers in synchrographs, a number matrix or field is formed. Regarding numbers in terms of matrices and fields is important, and acknowledging that numbers have spatial qualities is vital to fully appreciate their significance.

Each track in a synchrograph depicts the occurrence of certain events, i.e. the dividing of any given number by specific base digits. These events are not causally related to each other; the repetitious patterns of each track occur independently of each other. Nonetheless, important relations between them occur. Synchronicity as herein described stems from a numerical context. However, it closely parallels synchronicity as first propounded by the late Dr. Carl Jung, an acausal connecting principle.

Jung sought to account for people's collective behavior and perceptions which could neither be explained by causation or purposivism. Causation explains behaviors as caused by past events, while purposivism explains behavior as determined by seeking future goals.

To these Jung added a third principle called synchronicity for explaining those events which occur together in time, but do not cause each other. They are events which are nonetheless related. Jung realized the physical significance of synchronicity and concurrently renowned physicist Wolfgang Pauli was developing comparable ideas in his theories. In the mid fifties, they collaborated in an effort to describe their mutual concept of synchronicity.

In light of their results, and in light of the specific nature of synchronicity we describe, it appears that the Auric Key constitutes a precise mathematical model of synchronicity, as described by Jung and Pauli. Their work together centered around finding a unified view of psyche and matter.

A desirable feature of synchrographics in general is that their very configuration allows one to cognize several different patterns and relationships concurrently if not simultaneously.

This is conducive to a far greater understanding of numbers and their over-all implications. By spiraling the periodic table into differing axes forming synchrographs, specific relationships between the various elements are accentuated. For example, the inert gases will lie only in trine or opposition to each other. This has precedent in modern chemistry and shows another application of synchrographics.

Prime numbers play a vital role in the construction of geometric forms, and in turn of structures. These structures range from the microscopic to the macroscopic. They comprise our physical reality. In classical mathematics, the order of prime number occurrence is submerged by the orderly progression of cyclical nine and predictable squares.

Here again is the classical example of how context determines coherency. The way we have been looking at numbers has scrambled our vision of how they ultimately behave. In the graphic rituals of syndex numeronomy, the order of prime number distribution is for the first time described in an intelligent manner.

The frequency of numbers is essentially their degree of "primeness" or "non-primeness" with respect to the base numbers. The true set of primes is a subset of the "nulls" where the set of nulls is determined by the amount of columns under consideration (base numbers).

In this context, the frequency graph shows the spectral relationship between high and low frequency numbers such as 2520 and 26 respectively. This extends beyond a deeply rooted "either/or" dichotomy prevalent in the current notions of number and basic assumptions regarding (or disregarding) the structure of number.

The myriad implicate patterns in the synchrographic rituals are staggering. Chief among them is the perfectly symmetrical arrangement of marked squares which occurs regardless of how many columns are considered. Halfway between zero and every holotome is a mirror; a location where every marked position on one side is replicated on the other, only reversed; an exact reflection.

For example, Holotome A is evenly divisible by the base digits 2, 3, 4, and 6. Notice how this elegantly simple pattern progresses to the mid-point (or nave) at 6, and is perfected at 12. This general pattern recurs throughout all of the true holotomes, which are all divisible by 12.

In fact, Holotome E,

PART TWO: HOLOTOMES & THE HOLOTOMIC SEQUENCE

**Sydney Number Theory
Holotomes A, B, C, D, E
Definition of Mathematics with Description of Holotomic Sequence**

SYNDEX NUMBER THEORY

A. Universe is inherently resonant. Resonance is a complex of intertransformative frequencies of miniintertensioned systems.

B. The inherent resonance of Universe is caused by nature's never pausing at, and only forever transiting, exact equilibrium.

C. The union of Universe is a differentially complementary regenerative-production wedding of inherently, uniquely prime numbers 1, 2, 3, 5, 7, 11, 13, and all of their successive primes. The prime numbers are numbers divisible only by themselves and by 1, representing in synergetics unique system behaviors.

D. The prime numbers impose an eternal disquietude--transformative adjustments and omniintertensional resonances eternally interaccelerating.

Fuller, Cosmography (1992)

Eliciting the structural profile of the "BASETEN" system of quantitative notation naturally comes under the jurisdiction of geometrical display. Since an enfoldment occurs at the end of the base digits when numbers start to be empowered by the occurrence of the second digit (ten), we are inclined to enspiral number about a circle of ten radial increments, but this strategy does not work. We are left with a radial array that is void of any significant pattern: 10 - 20 -30 - 40 - etc.

This uneventful cyclation of numbers produces nothing remotely suggestive of a "base wave" that would manifest a synchronicity between number of a mutual

class such as primes or square numbers which, when played out in a linear sequence show no interactive relationship of any significance.

The same goes for the enspirament of nine except that when we look at the axis representing 9, we note that numbers reverse between 45 and 54 and go backwards. Until 81 is reached that is the reverse of 18 the first multiple of 9. This is a solid clue and one that leads to the first and genuine synchrograph, or a graph that synchronizes the fundamental classes of number in a highly meaningful context.

When we use the 12-fold clock face or zodiac forms, we are overwhelmed with a series of synchronicities that deal with primes, composites and squares.

First we discover that the primes fall in only four of the 12 possible axial locations: it means that eight axes are prime free. We've taken our first step to numeracy, the scientific discipline that we call synchrographics. This, in turn, legitimizes the term numeronomy as a genuine scientific discipline in that it has produced a systematic quality.

The synchronicity of quality and quantity (number and form) is the gist of numeronomy, which is the proliferation of the Holotomes, or symmetrical circular unities which are also the series of minimal sums which accommodate the maximum amount of consecutive factors of division.

The sequence of all sequences is the series of circular unities that are generated by doubling twelve, then by multiplying the sum by three, and then by multiplying each resultant sum by the next prime as the primes occur in their natural order:

[Insert:THE NUTSHELL DOCUMENT]

This sequence, aptly designated as the Holotomic Sequence, represents the minimal plural quantities that accommodate the maximum amount of consecutive factors.

Anyone who has ever pondered the source of 12 and 360 by ancient metrologists will investigate the total rationality and serious implications of the foregoing statement.

Dr. Fuller's superscheherizade number of 71 integers is vastly superceded by the holotomic sequence whose 16th member is divisible by all of the first 16 primes with merely 19 integers: 7378677391061900000, (52 less).

And I am not a fraction of the mathematician that Bucky was -- just a better numeronomist.

This is the primary member of an exemplary pattern of finite (or transfinite) moduals of circular unity that each contain all of the informational data of the preceding modual plus one additional information datic identity. They retain original information while adding new information into the original context without sacrificing any of its significance or meaning.

NUMBER 12: Holotome A contains four base digits: 2, 3, 4, and 6. (One, singularity is not a number in the same sense that 2, 3, 4, 5, 6, 7, 8, and 9 are numbers. These base digits are componentational unifications of the magnitudinal identity of singularity (One).

NUMBER 24: Holotome B contains five base digits: 2, 3, 4, 6, and 8, which increases its permutational capacity by one more degree...

NUMBER 72: Holotome C contains six base digits: 2, 3, 4, 6, 8, and 9 which again increases its permutational capacity by another degree...

NUMBER 360: Holotome D contains seven base digits: 2, 3, 4, 5, 6, 8, and 9, which still again increases its permutational capacity by another degree...

NUMBER 2520: Holotome E contains eight base digits: 2, 3, 4, 5, 6, 7, 8, and 9. This raises its permutational capacity to the limit of the base. In that one, singularity is not a number, Holotome E is regarded as the Auric Node. This is, in every sense of the term, a full octave, and totally synchronetic with the NINELEVEN RETROGRADE OCTAVE, which also being of an exemplary nature, synchronizes via 4 forward and 4 reverse event octaves with a 9th null event.

Definition of Mathematics with Description of the Holotomic Sequence

Ordinary number, the psychological mechanism which we commonly refer to as the base ten concept of qualitative notation, is the ultimate foundation of science and technology. In order to state this proposition in the proper perspective, we must understand that number and geometry are two interdependent aspects of a singular mechanism and that the four fundamental operations of arithmetic are also an intrinsic component of these interactive disciplines. They cannot possess an independent existence of their own without the presence of each other in a totally unified context.

This is to suggest that base ten number, which also involves the zero, geometry and the fundamental operations of arithmetic are a structural complex of interactive functions. Taken all together, they are a premathematical compound multiplex. Through the interactive mechanisms of their interdependent composition, they permit those secondary operations that we refer to as mathematics.

The extensive realm of mathematical disciplines cannot occur without the complete aforementioned complex of synchronetic functions that operate as a holistic system of geonumerical mechanisms.

It is precisely through this descriptive syntax that we draw the line between the tools we call number/geometry/arithmetic and the secondary operations we refer to as mathematics.

The common definition of arithmetic calls for four fundamental operations: addition, subtraction, multiplication, and division. A more exact regard tells us that only two fundamental operations exist, since addition is reverse subtraction, and no multiplication can occur without division.

This perspective reduces the actual complexity of the componentry of the basic numerical and mathematical tools.

We note that a triangle is a qualitative expression of the quantitative number THREE, and likewise a square is a qualitative example of the quantitative number FOUR. Number and geometry are two aspects of the very same physiomathematical function. One cannot exist independent of the other.

In practice, however, in the discipline of mathematical operations, these distinctions merge in such a way that the line between the geonumerical tools and the mathematical products of those tools become merged in such a manner that number, geometry, and mathematics appear to be inextricably united in a common field of inseparable fusion. With such a perspective, it is nearly impossible to analyze their actual interrelations.

For the sake of a dialectical analysis, we will suppose that number and geometry, the two ambidirectional operations of arithmetic, are premathematical. All of the varied operations of mathematics are the secondary products of the geonumerical operations of arithmetic.

In consideration of the foregoing suggestions, we have engendered a syntactical format. We have a clearly finite array of terminological componentry of physiomathematical epistemography. It successfully avoids the unspoken levels of distinction that confuse the dichotomy of quality and quantity that emerge in the descriptions of all mathematical definitions. They involve the separation of number, geometry, and the operations of mathematics.

The primary confusion that occurs in the synchronization of number and geometry is due to the fact that the first three signs for plurality (one, two, and three) do not represent spatial geometry at all. It is not until we reach number four that spatial geometry becomes involved in the form of a tetrahedron, as the ideal example.

In the first place, one is not even a number in the sense of the other eight digits. One is not unity, having no componentry to unite -- it must be deemed as singularity.

Number two may, at best, represent a line which cannot involve volumetric space.

Three, on the other hand, may only represent a plane, its ideal form being a triangle.

Four, then, is the first of the base digits that can represent spatial geometry with the ideal form being a tetrahedron.

This means that only six of the base digits can deal with spatial geometry: 4, 5, 6, 7, 8, and 9. They are points of reference in geometrical space.

SIX is the first perfect number in that one plus two plus three represents the harmonious interaction of the first three number signs. Six also represents the three ambidirectional axes of the TRI which denotes the six directions of spatial geometry.

It is through this logic that we begin the true synchronicity of number and geometry.

The **T.R.I.** is the cornerstone of real numbers that formulate the geonumerical series of spatial forms that produce an exemplary series of geometrical forms that synchronize numerical values with geometrical forms that involve numerically synchronous spatial integrity.

The Holotomic Sequence begins with the dodecahedron or twelve spheres that surround a 13th nuclear sphere, producing the first quasi-spheroid of six square windows and eight triangle windows.

The Holotomic Sequence begins by doubling the first perfect number and then multiplying each resultant sum by the series of prime numbers as they naturally occur.

$$1 \times 2 \times 3 = 6$$

$$A \times 2 = 12$$

$$B \times 2 = 24$$

$$C \times 3 = 72$$

$$D \times 5 = 360$$

$$E \times 7 = 2520$$

$$F \times 11 = 27720$$

$$G \times 13 = 360360$$

$$H \times 17 = 6126120$$

In this way the minimal sums with the maximum amount of consecutive factors are produced. Each represents both a planar and cubic mode of a harmonious and symmetrical retrograde octave unity which synchronizes number and geometry in a qualitative and quantitative geonumeric modal (dual module).

No other sequence can accommodate these aspects in an order of mathematical exactitude.

The Holotomic Sequence represents the series of minimal numerical sums that accommodate the maximum amount of consecutive factors of division.

The science of mathematics, the alphanumeric system of notation and industrial civilization, in general, has resulted from the metrological functions derived from this sequence.

The transpalindromal function of the exemplary 99 retrograde octave wavecycle accounts for the synch/desyndch mechanism of the continuity of the baseten system of quantitative notion of which the discipline of geometry is an interdependent ambifunctional unification of number and form.

To recap, spatial geometry does not play a role in number until the number four is involved. Three can only represent a surface or plane with the triangle as the minimal regular form.

Number four may represent spatial volume in the form of a tetrahedron as its minimal regular form: 4 windows and 4 vertices. So, already we have a half positive and half negative octave situation: windows opposed to vertices.

This means that only six of the basic numbers can involve spatial volumetric geometry.

The next important number in spatial geometry is twelve. This occurs through the dodecahedron (an irregular solid by Platonic description), which evolves from the closepacking of 12 spheres about a 13th nucleus sphere. This produces six square windows and eight vertices. This also produces #14 as a geometrical factor (2 x 7).

The dodecahedron, then, can represent a quasi-sphere. In contrast to the tetrahedron, (which is the most surface for the least volume), the step to the dodecahedron is a great volumetric increase.

Ignoring the regular solids of Plato and considering the whole range of Fullerean geodesic configurations with a distribution of pentagons and hexagons we find a series of quasi-spheres, which become more spherelike as they grow in size/number. Still, they will never achieve perfect sphericity, in nature or the abstract.

When we consider this sequence of geodesic spheroids, (or quasi spheres), we are struck by an analogy that occurs in number sequencing.

The **Fibonacci Series** grows irrationally until the 17th member (6180339), then stabilizes for the first eight digits and continues on. It is at that point where, when represented as a spiral, it grows in size but does not change in shape.

Number sequences that are deficient shrink faster than they grow, reaching a sort of circularity while their counterpart proficient goes wild into an arch that approaches linearity, (but never quite attains it).

The Holotomic Sequence is totally different than all the other sequences. It becomes somewhat erratic in its initial phase especially the first three members which are two digit: 12, 24, and 72. Then it grows one digit at a time until its 8th member: 6126120, which is seven numbers long, then it skips to a nine digit number, (omitting an 8 digit Holotome) From then on, the series is very slightly deficient and skips over an integer length every so often..

The remarkable thing about the Holotomic Sequence is that the hard digits quit at fourteen positions and continue to build on with accumulative zerosity. That is, after 14 hard numbers, we get nothing but zeros.

The Holotomic Sequence is more representative of geometrical space than planal geometry. Like the polygons - the 56 Aubrey Holes of Stonehenge give us a pi value of 3.111, repeating-- that means a polygon of 56 circumference is commensurate with a diameter of 18 of the same units.

$$3.11111108280 - 2520 = 0.123456789$$

We find an association here with Holotome E: 2520. Inasmuch as $45 \times 56 = 2520$, the 45 representing also a right angle (1/2 of 90 degrees) to 360 circular unity.

At this point, the question to Neil J. Sloane is just what logic is there in finding the ideal distribution of points on the surface of a sphere, when (as Fuller asserts) there is no ideal sphere to be found in nature? Only quasi (geodesic) sphere, which can never reach a finite sphericity, even though they come close. Using pi, we never come up with an end to an irrational sequence, and nature simply doesn't operate this way.

The geodesic is the *modus operandi* of nature herself, and by regarding the sequence of holotomes as a series of rational (finite) steps, we have a genuine logical dialogue with nature.

The Platonic solids were an attempt to find ideal forms, but some of these have never been found in nature, but only in the abstractions of the imaginations of mathematicians and geometers.

The Fullerean geodesic quasi-spheres, on the other hand, are prominent in nature's scenarios and structural forms. Even viruses have recently been discovered, through high magnification, of geodesic design. Dodecahedral seed pods are also prevalent topological formations in biological stereotypes of nature. Even the apparent sphericity of soap bubbles is geodesic.

Fuller's geodesic modelling works on the atomic and molecular level. Extending these spherical models into chains is what led to the architecture of the D.N.A. spiral.

Fuller presented a model of DNA with the chain of tetrahedrons that requires 22 to make a full revolution. Qabalist, Stan Tenen discovered a correspondence with the Hebrew alphabet with these 22 tetrahedrons (tetrahelix). Actually, it was the Akkadians who first used the 22 letter alphabet by adding Aleph to the Sumerian 21 letter alphabet (six of which were vowels). It is my opinion that the Akkadians were the first to corrupt a perfect alphabet of 21 letters--an alphabet capable of producing an ideal syntax.

The infrastructure of such an ideal syntax can be seen in the proposition:

THE SYNDEX PRETZEL

$$12^2 : 144$$

$$+108 = 9 \times 12$$

$$12 \times 21 = 252 \text{ palindrome}$$

$$+189 = 9 \times 21$$

$$21^2 : 441$$

Transpalindromic composite roots producing transpalindromic composite squares.

This is the means whereby transpalindromic squares are derived from transpalindromic roots...with a palindromic nave 252.

2520 or Holotome E is the first and lowest number divisible by all eight base numbers:

$$12 \times 2 \times 3 \times 5 \times 7 = 2520$$

The interrelationship of number and geometry begins by doubling the first perfect number: 6, then multiplying the primes in their natural order of occurrence. This produces the series of minimal sums that accomodate the maximum amount of consecutive factors.

Having studied the nature of this sequence for the past 30 years, I am totally confident that the Sumerians were programmed by this system in order to produce the metrology that created not only the alphanumeric system of notation, but the whole mathematical foundation of industrial civilization or civilized culture itself.

The first regression of this perfect system was the Akkadians addition of Aleph.

The second regression was when the ancient Hindus divided the astrocalendric aspects of the original Sumerian plan into two systems by the introduction of :

OM:

#108 (3 x 36).

THE YUGAS 4320
THE AGES 6480
(and an undetermined amount of zeros)

Then the Greeks came along with their improper geometry from the sequence of "ideal" solids and cut us off from the last traces of the ancient wisdom which paved the way for the social chaos of the dark ages.

Later, Sir Issaac Newton formulated the laws of motion, the most significant of which is the retrocity involved in action vs. reaction. This put us on the track to modern industrialization. His mind could not deal with the triangle, but he made the most of dualism.

The return to valid numeronomy did not recur until 1980, when Marshall discovered the Holotomic Sequence through an innovative discipline termed Synchrographics.

It was because I was not programmed by mainstream scholasticism that I had to disbelieve the fiction that prime numbers were an example of chaos. In my semi-literate way, I knew better and set about developing a method of rediscovering the truth which is that geometry and number, quality and quantity are two sides of the same coin. But to find the key to their synchronicity, I had to realize that only six of the base digits could involve spatial geometry.

That I have discovered a strange and wonderous aspect of the natural sequence of number there can be no doubt. And that these patterns of the continuum of number were responsible in extreme antiquity for formulating the basic metrology that established and proliferated industrial culture is beyond dispute.

The question that recurs in my mind with great regularity is this: Of what use is this knowledge or how can it be further employed in the realm of science in a world where metrology is as natural as our breathing and for the operations of technology just as essential, like correcting the ways that technology is misused.

The Holotomic Sequence is physically interrelated with these geometrical geodesic forms that look like perfect or ideal spheres. On certain levels we have some legitimate questions that require talented answers.

Vieta used a polygon of 393216 sides to obtain pi within 10 correct decimals. Whether these polygonal sides are ideally straight is inconsequential.

Einstein did away with the ideal straight line, but it had no effect on the practicality of the ideal straight line. Bucky Fuller did away with the ideal sphere, but its purpose still remains as a useful element in our conceptual process.

It therefore seems that the rediscovery of Numeronomy and the Holotomic Sequence might be applied as a unifying field of reference that in its ideal non-existence was here before the beginning, and so it shall remain, even in a world of erroneous thinking.

(Editorial Note: There are several pages of as-yet-unscanned number tables which support these allegations. We will post them as they become available in a presentable form besides xexored snail mail. They include graphics of the first Holotomes; Respective Divisors of the Holotomic Sequence; Reflexive Nature of Holotomes; Extended List of Holotomes; Anatomy of the Syndex Pretzel Sequence; In Consideration of Boxcars; Brief Clarification of Grid Sixteen as 2-D Basis of Holotome A; Nature's Key Ratio, etc.)

THE HOLOTOMIC SEQUENCE OF CIRCULAR UNITIES

$$\mathbf{1 \times 2 \times 3 = 6}$$

$$\mathbf{A \times 2 = 12}$$

$$\mathbf{B \times 2 = 24}$$

$$\mathbf{C \times 3 = 72}$$

$$\mathbf{D \times 5 = 360}$$

$$\mathbf{E \times 7 = 2520}$$

$$\mathbf{F \times 11 = 27720}$$

$$\mathbf{G \times 13 = 360360}$$

$$\mathbf{H \times 17 = 6126120}$$

PART THREE

99 CYCLOFLEX

OR

NINELEVEN RETROGRADE OCTAVE WAVECYCLE

**Base of Number System
Palindromes and Transpalindromes
Number Behavior and Structure
Formulation of Fundamental Syntax
Basis of the Syndex Glyphs**

The Base of Number System

Mathematicians and number theorists alike have met with much confusion when speaking of the "base" of a number system. The system now in almost universal use is generally referred to as "BASE TEN." To my way of thinking, even though

I use the expression often myself, it is totally improper. R.B.F. is the first of modern numeronomists to address this problem in a more appropriate way by pointing out that nature is operating in an octave nine system -- that is, an octave with a ninth null event.

Echoing from the ancient past, we find the words of Zoroaster, *"The number 9 is sacred, and attains the summits of philosophy."*

The problem I am referring to comes about by regarding one as a number whereas one represents singularity, which is not a number in the sense that 2, 3, 4, 5, 6, 7, 8, and nine are numbers.

Psychologically and symbolically speaking, one is not a number. In **Ego and Archetype**, (p.184), **Edward Edinger** informs us that, *"The number one as the first and original number is, strictly speaking not a number at all. One as unity and totality exists prior to the awareness of numbers which require a capacity to distinguish between separate discrete entities. Thus, one symbolically corresponds to the uroboros state prior to creation and the separation of things. Thus, two is the first real number..."*

Since zero is also not a number, we are left with only eight genuine numbers.

Therefore, in reality our number system is rightfully base eight, not base ten.

This confusion has been around forever, if we discount the idea that everything started at some discrete instant in time, which is no more absurd than the idea that somethingness came out of nothingness.

Aleph was the initial letter of the Akkadian or Hebrew alphabet. It is also the first Trump of the Tarot. Tradition says it does not count, yet is able to take any position, like the Joker in the modern deck.

The retrograde octave wavecycle cannot exceed a transpalindromic octave, because of the fact that only 8 signs numerate.

33² 1089
2178
3267 +4

4356
5445
6534
7623 -4
8712
99² 9801

Terms, Process, and Special Notations

The term transpalindromic, which recurs often in the Syndex descriptions of number behavior, is both a very simple and complex concept.

The term palindrome, of course, denotes any number that reads the same in both directions, such as 11, 101, 666 or 3663. But the term transpalindrome refers specifically to any number which is the reverse of a preceding or following number, such as 3168 and 8613.

3168 and 8613

A good example of a transpalindromic couplet, and an example that demonstrates the structural significance of such terminology can be determined in the following numerical context:

(12 and 13 square syndex pretzels)

To extrapolate this sequence, one must take into consideration the accumulative complexity of the palindromic/transpalindromic octave loop cycle. It is a function that becomes apparent through the progressive understanding of numerical

behaviorisms.

Original Clue to the Order of the Primes Rediscovered, 1981

For those number theorists who wish to contemplate the original key that unlocked the enigma or mystery of the rational order of prime number distribution:

The exemplary nineleven octave cycloflex or 99 wavecycle described in this introduction acts as a number modual that reveals the retrograde octave of four forward and four reverse event octaves with a 9th null event.

Superimposed on the totally symmetrical 99 cycle are the four pairs of reversible near-prime composites that act as a loophitch which completes the symmetry:

9
18
27

36
45
54
63
72
81
90
99

Eleven

13 + 31 = 44 : 11 x 4
17 + 71 = 88 : 11 x 8
37 + 73 = 110 : 11 x 10
39 + 93 = 132 : 11 x 12
79 + 97 = 176 : 11 x 16

11
13
17
31
39
71
73
79
93
97

99

The Formulation of Fundamental Syntax in Terms of Quantity and Quality, Number and Form

The term number behavior, rather than the term number structure, would imply a kinetic function to a general language, describing the complex cyclic and reflexive interactions peculiar to the numeric continuum. Geometrical modes of expression become integrated with the static aspects of quantitative or plural detail.

The dynamic or kinetic picture supercedes the implicate rigidity suggested by the term structure. To hyphenate behavior-structure in the attempt to rescue this semantic impass becomes a gesture of redundance serving only to confuse an issue already unclear.

Since geometry and number are two aspects of the same series of interrelationships that begin with the quality of triangularity denoting the quantity of number three, we give birth to the idea of a synchrograph. We have

synchronized quantity and quality on an initial level. With this in mind, we may state that sequence is plural and at minimum threefold. Sequence is the key to the idea of behavior, and triangularity the key to the idea of structure.

By the doubling or foldment of triangularity we produce (synthesize) both the quality we call hexagonity and the qualities inherent in the first perfect example of quantity. With it, we give rise to the idea of harmony inasmuch as one plus two plus three equals six, i.e. the harmonious interaction of a unification of whole number components.

By enclosing the hexagon within the perimeter of a circle, we give credibility to the concept of circular unity. This could be a far-reaching and important concept to industrial intellectuality despite its most mundane and simplistic nature.

Circular unity is responsible for the synchronicity of more basic and therefore crucial concepts than any other single idea. It is also the most disregarded conceptual idea entity of all.

A comprehensive formula for physiomathematical epistemography begins with a clear notion of the synchronetic profile between the ideas of quantity and quality. This profile is founded upon the web of terms surrounding the notion of number six.

Since circular unity in terms of quantity six is limited to a planar format, we must double this phase of plurality to deal with spatiality in a volumetric sense. This is expressed in terms of a referential format properly termed the Triaxial Retrograde Interface. By intersecting three ambidirectional lines of direction at a common loci, we produce the minimal spatial mapping of the six-sided cube, which may also designate the external parameters of a sphere which could be seen to enclose that sphere within its six imaginary faces.

The T.R.I. demonstrates the interreferential labeling of up/down, right/left, fore/aft. It lends itself to the metrological dimensions of any spatial configuration as the minimal graphic system of spatial description in terms of quantitative and qualitative mechanisms, the most fundamental elements of descriptive language.

Fuller's statement that unity is plural and at minimum sixfold can then be considered the fundamental key to the mechanism of linguistic description in terms of common empirical practice (irregardless of the language involved).

This semantic representation of sixfold unity as the minimal frame of reference is less elegant than the graphic depiction. The ideal form of syntax is crucial to any scenario of space-time formulation, the denial of which would lead to absurdity, paradox, and general descriptive error.

Thus, number and geometry, plurality and form begin their synchronetic unity in the unification of plural six and hexic form as the common denominator of all rational description. By doubling the cornerstone of logic we produce the 12 spheres of the dodecahedron with its 13th nucleus sphere

as the first instance of spherical unity, (the fundamental basis of physiomathematical epistemography).

Neologisms are required by this dynamic process to define new terms and concepts. They exceed the descriptive capacity of extant lexicons. The prefix syn-, as in synthesis, syntax, synopsis, synthesize, synthetic, synonym, synergism, and synchronicity have all arrived on the scene of descriptive terminology in recent times. This is due to a significant increase in technological insights. New terminologies help us cope with ideas that exceed the boundaries of valid syntax.

Synergetics could not have achieved its impact on modern thought processes were it not for the invocation of the prefix syn-. It is a prefix which is impressively responsible for the correction of prominent errors in the syntax of the descriptive mechanism of general linguistic expression.

The key to the prefix syn- is with, together, at the same time. It has direct affinity with the term relativity, the term which carried Einstein into preeminence in the realm of scientific thought.

The synthetic aim of this present document is threefold:

#1: to investigate the relationships of synchronetic events in general space-time scenarios,

#2: to investigate the relationship of geometry to number in terms of synchronetic behaviors of space-time.

#3: to employ the graphic language of geometry in the behavior of number

through an innovative mapping procedure, called Synchrographics.

BASIS OF THE SYNDEX GLYPHS

In the mid-sixties, I chanced on the notation, description, and general explanation of a glyph purported to be a "null-A" sign (not Aristotelian), which considered ideas beyond the traditional capacity of Grecian/Roman syntax.

The very general and simple significance suggested by the writer who brought this sign to my attention, (it could have been Isaac Asimov?), implied that it referred to the idea that any function that passed through infinity reverses itself: .

I eventually adopted this symbolized idea to act as a mechanism to synchronetically involve the 12 possible combinations (of palindromic, transpalindromic and all other possible classes of square, composite, and prime number permutations of trirelational retrocity). It presented itself as an ideal context with which to amplify the coherency of the ideas concerned with the

minimal amount of symbolic componentry. Whether this strategy of notational invention will survive the test of time, only time itself can judge.

The simplistic statement that each level of finitude is the reverse of its prior is demonstrated through the observation that minimal unity is sixfold and by its essential linear or circular context demonstrates that we are always dealing with a specified quantity of discrete levels of finitude.

Infinity as a notion of singularity is totally devoid of rational significance. By virtue of this notion--for the most part, intuitive--prominent experts in the field of mathematics concede the existence of a diversity of classes of "infinity."

In practice, physicists often correct equations to eliminate the absurdity of infinity.

"Just because equations produce an infinity does not mean that an infinity exists in any practical sense. In fact, physicists quite often 'renormalize' equations to get rid of infinities, so that they can ascribe physical meaning to their numbers. An example is the calculation of the electron's mass from theoretical principles, which at face value leads to an unrealistic, infinite mass. The same kind of mathematical sleight of hand might need to be done for vacuum energy calculations," according to Phillip Yam, SciAmer, Dec. 97, p82, "Exploiting Zero Point Energy."

To sum up the ideas involved in the foregoing preamble, I will simply assert that the term infinity is but one case of a plethora of totally meaningless terms.

Only through the complex nature of syntax can any word conform to a definition generated through the absurd notion of "dictionarity" as having some sort of static

meaning.

The Classification of Number in General

Like the stars, numbers cannot be counted but they can be properly classified and identified accordingly.

There are twelve glyphs which comprize the full constellation of number classification.

Palindromic prime; retroprime composite; transpalindromic composite; retrocomposite square; palindromic square; retroprime square; transpalindromic prime; retrocomposite prime; palindromic composite; retrosquare composite; transpalindromic square; retrosquare prime.

Of the countless numbers that seem to exist, at least to the human mind, there are but twelve classes that will identify any particular number that will ever come to your attention.

The structural profile of the sequential progression is characterized by the interaction of these twelve discrete kinds of numbers. The omission of any one of these classes is enough to disrupt the continuity of the order which they represent. The fact that most of these classes have never been considered at all is reason enough that prime number behavior has remained a mystery to modern number theorists.

Out of the 90 two-digit numbers, there is but one square number that is a prime when turned around backwards. Such a number is rare, no matter how many digits compose it. This number is already recognized as special to modern electronic technology. However, no one else at the moment knows the real reason why this number is so special. The number in question is SIXTEEN. It is the sole 2-digit square that is a prime in reverse -- 61, its reverse, is a prime.

According to the nomenclature of the syndex routines, number sixteen is designated as a retroprime square. The glyph that represents this class is . And, of course, the glyph that represents 61 is , its exact reversal.

In order that one can follow the logic of these glyphs, it is not necessary to memorize all twelve, which cover the complete classification of all number. It is necessary, however, to have a fair grasp on the square numbers. Especially pay attention to the glyphs that represent the palindromic primes like 11 and 101. The glyph that represents their class is .

It is by virtue of the transpalindromic nature of the numerical continuum that these classification markers are necessary. The complexity of the continuum can not be understood without them.

It has become my confident opinion that the full system of number classification was acknowledged in prehistoric time. Of course, they didn't use the glyphs we are adopting, but that does not matter. Any sign that we wish to use can serve the function. Or any word, that we wish to use to represent the idea would yield the same result.

The written letter, sign, number, or glyph is only a symbol of the word which, in turn, is only an audio symbol of the idea. It must be clearly understood that the only reason for writing and numbering on stone, clay, metal, paper, or electronics is for the purpose of storing and transmitting ideas across space and time. Otherwise, any information or data can be communicated between two minds with nothing more than articulated sounds or gestures. An idea is an idea is an idea, and how it may be transmitted is inconsequential, so long as there is consensus.

For most of my life, I have formulated a personal written language--a thinking language for myself, to record personal ideas for transtemporal self dialogue.

Since people who talk to themselves are considered peculiar, I have never bothered to share my language with anyone.

In fact, I have a habit of burning my notes after putting certain ideas aside. However, some of these esoteric, personal signs and symbols are now being used and explained in the Syndex Theory. In standard English, I have finally found something worthwhile to divulge to whoever wishes to understand things not generally known even to the inquisitive.

The twelve glyphs that comprise the complete classification of number are an important part of my thinging language. The central catalytic element for this twelve sign alphabet of number is an inverted \cup . To me, this represents the universe of plurality, which in turn represents both the inside and outside, much like the Hebrew sign for Beth or house. It is merely an empty container, a cup upside down.

When I draw a line through this cup: \cup , it signifies a function that passes through. It goes in, then out. When I put an arrowhead on one side: \cup , it means that the function has a specific direction. It is as simple as that. When applied to a number like 13, I write: \cup . Because 13 is a reversible prime, inasmuch as 31 is also a prime.

Thus, by applying the C: \cup , for composites and the w: to represent squares, I have given the proper identity to any number in regards to its reverse and forward nature. In this way the palindromes become more than an oddity. They are a very discrete and important class of number.

Thus, by reviewing the continuum of number ambidirectionally, I have unlocked the enigma of why the palindromes occur where they do, which is the key to the mystery of prime number occurrence or distribution.

For example, here we have a full octave of retrograde number profile, by taking a palindrome: 555 and subtracting 99, then adding 99 in precessive and successive steps.

159
+ 99
258
99
357
99
456
99
555
99
654
99
753
99

852
99
951

Since there are only eight base digits that are comprized of componentry (2, 3, 4, 5, 6, 7, 8, and 9) you can never produce a transpalindromic sequence that goes further than eight positions--an octave. The center number, 555, which I call the nave (from navel) doesn't count because it, itself is a palindrome.

99 and its multiples are the only numbers that will produce such a sequence, ($9 \times 11 = 99$).

It is the interaction of square number nine and palindromic prime number eleven which produces this exemplary wavecycle. I call this the exemplary nineleven cycloflex.

Number graphs supplied with this text amplify the epochal significance of this crucial aspect of number behavior. Without this critical insight, the enigma of prime number deployment would remain a mystery.

It seems as if number theorists have always regarded the reverse of number only in terms of the minus or negative numbers, and not the reversal of the individual numbers themselves.

That addition is reverse subtraction and multiplication only occurs through division is not generally recognized due to the idea that in the operations of arithmetic they occur in conjunction without conscious regard. Therefore, we say "the four fundamental operations of arithmetic" instead of the two ambidirectional operations.

Retrocity is an easy thing to ignore, because it is something that must be ignored in order for the operations to function within the discipline.

But, ignoring the whole reverse nature of the number continuum itself, permits the symmetry of number to be submerged in the non-symmetrical quasi-chaos of how and when prime numbers occur in relation to non-primes.

Number symmetry requires another aspect which is that you must have a finite group of numbers in order to have symmetry. This is where circular unity comes into play in the form of the Holotomes.

Each Holotome is a half positive, half negative (retrograde) circular unity, comprized of the minimal sums that accomodate the maximum amount of consecutive factors.

As a special case, Holotome E, or 2520, which is the first sum to accomodate all eight base numbers. The midpoint (1260), goes into retrograde. It is divisible by all the bases except 8.

We nurture the opinion that knowledge evolves and that things understood 2,000 years ago are not worth considering. The opposite is true, certain aspects of knowledge evolve due to this very attitude about modernity.

I found this piece of information in, of all places, **The Book of Revelations:** Chapter 12 : 6 and 14:

360 "Time"
720 "Time"
+180 "Half a Time"

**"Two wings of 1260 Divides by all base, except 8
a Great Eagle" 1260 (The Serpent Cannot Enter)**

2520 Divides by all base digits

It was from the proper interpretation of these verses that I drew the eight-banded spiral cascade about a circle divided into 360 segments that give visual recognition of the transpalindromic or retrograde function of that particular graphic modual.

By the simple destrapolation of that Holotome via the primes in their reverse order that I rediscovered the Holotomic Sequence or Auric Key.

And then I found the nave of twelve was number 6, or the first perfect number. Each of these sums when mapped out in the manner of Holotome E produce the same half positive, half negative, symmetrical retrograde unity.

The next important breakthrough occurred in 1981 when I discovered the four pairs of reversable, two-digit primes that clicked into a perfect symmetrical bridge that fit the octave occuring in the exemplary nineeven wave cycle. Their symmetry was made perfect by a fith pair of near-prime composites composed of the 1st pair:

13 31 17 71 37 73 39 93 79 97

11
13
17
31
37
39 3 x 13
71
73
79
93 3 x 31
97
99

This is much more evocative when viewed in conjunction with the fully notated column of the first 99 numbers which are rendered in a three column collation entitled the anatomy of the nineleven cycloflex: EXEMPLARY BASE WAVECYCLE.

The synchronization of the Holotomes with the wavecycle is a matter somewhat difficult to describe even with the usual number constructions. The transpalindromic squares with their transpalindromic composite roots are the place to begin, especially since the first root number is the first Holotome, (A).

Any Holotome added to its own reversal produces one third, or two thirds of 99, exactly 99, or a high factorial multiple of 99.

$$\begin{aligned} \text{Holotome A: } & 12 + 21 = 33 : 1/3 \text{ of } 99 \\ \text{B: } & 24 + 42 = 66 : 2/3 \text{ of } 99 \\ \text{C: } & 72 + 27 = 99 : 3/3 \text{ of } 99 \end{aligned}$$

The introduction of the zero produces an element of confusion in regards to how the reversal is presented in terms of where the zero is placed.

$$\text{D: } 360 + 630 = 990 : 10 \times 99$$

Inasmuch as 252 is a palindrome, the same element of confusion occurs in the placement of the zero:

$$\begin{aligned} \text{E: } & 2520 \\ & +0252 \end{aligned}$$

$$2772 = 28 \times 99 \text{ (28 is the second perfect number)}$$

$$\begin{aligned} \text{F: } & 27720 = 280 \times 99 \\ \text{G: } & 360360 = 3640 \times 99 \end{aligned}$$

It may be said then that the Holotomes represent a discrete finite unity each in themselves. They reserve a transfinite connection with the continuum of number through their synch/desynch relation with the exemplary 99 wavecycle through the elusive function of retrocity.

My wording on this issue may leave much to be desired because the whole issue suggests a paradox. The term transfinite, if we consider it carefully, is a term that suggests a warranted paradox since going beyond the bounds of finitude is to be unfinite, but not necessarily infinite, which is a word I've not much use for.

"Discrete levels of finitude" is a phrase I used in some notes many years ago, and I guess this will still serve to describe the Holotomes as they relate to the wavecycle, which is shown to be an unbroken sequence of cyclooscillations.

In full confidence this is the last comment I wish to make on the matter, until such time as I see things from some unexpected perspective.

SUMMARY: IN THE SPIRIT OF ALADDIN'S WINDOW

Fuller was the only person in recent time who came close to eradicating the theory of number with a totally rational, logical and comprehensive analysis of the behavior and/or structure of the so-called base ten system of quantitative notation. He formulated a most coherent definition of the familiar but misunderstood term, unity:

#1: "Unity is plural and at minimum twofold..."

#2: "Unity is plural and at minimum sixfold..."

In the first instance, I interpret the twofold unity to merely mean the unification of a pair of singularities. No geometrical involvement can occur in number two other than a line which might demarcate each from other. This line is the vector joining the centers of two spheres of equal radius.

Since one is not a number but an instance of singularity, it may be said to represent a point (as a geometrical aspect).

Number three is the quantitative expression of the quality of triangularity; geometrically, it is the first instance of a plane.

Number four is the first digit to represent geometrical space in the four window or four vertices of the tetrahedron.

Skipping five, for the moment, to his sixfold minimal plural unity, we can understand his statement of "two four-vertexed each tetrahedra as the minimum experience of universe.

In this context we have a fully spatial, geometrical and harmonious unification of plural unity. One plus two plus three equals six. The so-called first perfect number is the harmonious whole number synchronetic unity minimal in the spatial sense.

Since the two four-vertexed each tetrahedra may be seen to have six windows but only five vertices, we have accommodated the five frequently "skipped over" non-symmetrical or harmonious unification of componentry.

It is on the logic of Fuller's definition that I define circular unity as a symmetrical and harmonious interaction of both numerical and geometrical events. I signify this in the quantitative and qualitative geonumerical graphic entity designated as the TRIAXIAL RETROGRADE INTERFACE.

The two dimensional representations of this T.R.I. space coordinate structure can be seen in the classic color wheel with three classes of duality.

The confusion of one with unity probably began with the geometry of the Greeks who totally ignored the age old and much reiterated question of whether or not to count Aleph. The very expression "Number One" is a self-contradiction since one is in essence a singularity. It has no componentry to unite.

Since neither zero nor one are numbers in the same sense as 2, 3, 4, 5, 6, 7, 8, and 9, the title baseten only refers to the amount of signs that make up the system, which only consists of eight true numbers, i.e. signs that represent a plurality of components.

In one place, Bucky refers to number as "an octave system with a 9th null event." I interpret this statement as the transposition of one still being regarded as a number, to nine as the null event. The German word for no (nien, null, nothing, nada) could have influenced this attitude, plus the fact that the cyclic lap in the retrograde octave occurs there:

No transpalindromic series can exceed eight positions because only eight true numbers (or members) exist. The multiples of nine reverse between 45 and 54, or precisely at 49.5.

Bucky wrongfully cited the "turnaround" at fifty, which is exactly one half off...

The multiples of 99 turn around between 495 and 594 or, at precisely 544.5.

The multiples of 1089 at 5445, a whole number nave or location of the retrograde second half octave.

Thus the exemplary octave wavecycle occurs through the continuous interaction of nine and eleven:

$$\begin{aligned} 9 \times 11 &= 99 \\ 99 \times 11 &= 1089 \\ 999 \times 11 &= 10989 \\ 9999 \times 11 &= 109989 \\ 99999 \times 11 &= 1099989 \\ 999999 \times 11 &= 10999989 \text{ octave} \end{aligned}$$

(Editorial Note: As for the other sections, this one contains many unscanned number graphs including a 9-axis spiral to 108; mapping the 9/11 cycloflex; prime/square interface; comments on #41; Fibonnaci sequencing beginning with first two holotomes; list of retroprime squares; first five-digit palindromic prime; nine repeating digits divided by the sum of those digits produces the nine base digits in their original sequential order; graphic comment on number/behavior structure; crab mantra; exemplary 9/11/ retrograde octave wavecycle; continuity of 9/11 wavecycle; Biaxial Synch. A, etc.)

PART FOUR

TRIAxIAL RETROGRADE INTERFACE

SYNDEX AXIS = SYNTAX

Frame of Reference
Six as the First Perfect Number
Circular Unity
T.R.I. as a Model of Sacred Space
Critique of Euclidean Geometry
Toward an Ideal Syntax

CIRCULAR UNITY & THE TRIAXIAL RETROGRADE INTERFACE

*"There is no such phenomenon in Universe as 'One,' the lone observer."
"There are no indivisible points."*

Fuller, Cosmography

FRAME OF REFERENCE

Any experience, event modelling, or orientation in spacetime requires a frame of reference to distinguish the event or scenario from irrelevant factors. Traditionally, the rectilinear XYZ system of defining points in 3D space has been used since ancient Greece. But what is a point?

Since the birth of quantum mechanics the meaning of the supposed three-dimensionality of space has come into question. The best answer to what a point is in physical terms is the elementary atomic particle such as an electron. But on closer examination, it has no discernable physical structure and exhibits wave-like properties. Three coordinates are too few to describe the state of the electron.

However, Fuller reminds us that *"nature is not using the strictly imaginal, awkward and unrealistic coordinate system adopted by and taught by present-day academic science."*

Synergetic modelling is fundamentally different in its entire approach: *"The synergetic hierarchy provides a description of all omnitriangulated polyhedral systems exclusively in terms of points and prime numbers."*

Fuller's critique of Euclidean geometry comes from its deficiency in modelling holistic and energetic processes: *"The XYZ coordinates of parallels and*

perpendiculars have nothing to do with the way the Universe is operating. Universe is operating in radiational-divergence and gravitational convergence. Events in parallel never get resolved; convergent events become exquisitely resolved. You cannot have a nucleus in a perpendicular or a parallel system. You can have nuclei only when you have symmetrical tetrahedral convergence."

He outlines the self-organization inherent in nature: *"Nature's continuous self-regeneration is 100 per cent efficient, neither gaining nor losing any energy. She grows outwardly by omnitriangulated structuring from nuclei."*

As a frame of reference, the cube or hypercube is inherently unstable. A vectorially-edged cube collapses without triangulation. Six end-interconnected diagonals form the six edges of a tetrahedron. The most efficiently stabilized cubical form is accomplished with the prime structural system of Universe, the tetrahedron.

Squares and cubes may have been fine for dividing up fields after floods or carving stone. But they are not the best model for curvilinear reality. Without diagonal stabilization, a nonstructurally triangulated cube is a topological self-deception. XYZ as a frame of reference or orientation is obsolete.

Fuller clued us in that, *"Synergetics is not a frame at all, but a pattern of most omnieconomical (ergo, spontaneous) interaccomodation of all observed self-and-otherness interexperiencing, (ergo, geodesic--geodesic being the most economical interrelationship of a plurality of events)."*

He further states again that, *"All structures are tetrahedrally based."*

Six vectors provide minimum stability, therefore the synergetic model far exceeds the simple cube in defining a volumetric, energetic entity. The cube is still part of the intertransformations. It can contain or be contained by a sphere, and is part of the reciprocation of the vector equilibrium (cuboctahedron) with its geometric dual--the octahedron within a cube.

Therefore, it is infinitely superior as a frame of reference, even though it is no

frame at all, but an energetic system.

CIRCULAR UNITY

The full definition/description of circular unity begins first with the definition of the word unity. As defined by Fuller in Synergetics II: *"Unity is plural and at minimum sixfold."*

Drawing from a variety of Fuller's sources, we find that, *"A point is not a relationship...for every point in Universe, there are six uniquely and exclusively operating vectors...There are six vectors or none."*

"Every event is six-vectored. Six unique vectors constitute a tetrahedral event. Each vector is reversible, having its negative alternate. There are no straight lines, physical or metaphysical. There are only geodesic, i.e. most economical, interrelationships (vectors)."

"It takes a minimum of six interweaving trajectories to isolate insideness from outsideness, ergo, to divide all Universe systematically into two parts-- macrocosm and microcosm...Unity, as represented by the internuclear vector modules, is of necessity always of the value of two; that is, unity is inherently two, for it represents union of a minimum of two energy centers."

Imagine two ping pong balls kissing. Imagine a line connecting their centers (vector). Half of the vector forms the radius of one sphere, while the other half forms the radius of the other sphere. Unity is dualistic in this sense, of uniting two singularities.

"There may be no absolute division of energetic Universe into isolated or noncommunicable parts. There is no absolutely enclosed surface, and there is no absolute enclosed volume. Universe means 'toward one-ness' and implies a minimum of twoness....Our modern concept of Universe is a comprehensive system of energy processes. Universe is a non-simultaneous potential vector equilibrium...The vector equilibrium is the minimum operational model of happenings."

Vector Equilibrium is a sublime state which energetic processes constantly pass through, but never stop at. It is where interference patterns can pass through one another in energetic changes, without interference.

Vector Equilibrium is the common denominator of tetrahedron, octahedron and cube. It is the prime nucleated system. It is omnidirectional equilibrium based on the closest packing of spheres of equal radius. The nuclei of atoms are based on this close packing. In this model, physical and metaphysical reality share the same ideal design.

*"All experiences are omnidirectionally oriented. Omnidirectional experiences resolve themselves scientifically into discrete angle and frequency patterns. That is life! Relations are local to pattern. Patterns are comprehensive to relationships...In considering a total inventory of the relative abundance of different patterns, it becomes apparent that patterns are **reciprocal**."*

*"There are six positive and six negative degrees of fundamental transformation freedoms, which provide 12 alternative ways in which nature can behave most economically upon each and every energy-event occurrence. You have six vectors or none for every energy event ... For every event-fixed locus in Universe, there are six uniquely and exclusively operative vectors. **Every vector is reversible**. Every event is six-vectored. There are six vectors or none."*

In sections 537.10 and 537.14 of SYNERGETICS I, Fuller reiterates these basic truths:

"Each of the six positive and six negative energy lines impinging on every nonpolarized point ("focal event") in Universe has a unique and symmetrical continuation beyond that point. The six positive and six negative vectors are symmetrically arrayed around the point. Consequently, all points in Universe are inherently center of a local and unique isotropic vector matrix domain containing 12 vertexes as the corresponding centers of 12 closest- packed spheres around a nuclear sphere."

Hopefully, these reiterations of the geometry are helping the reader to visualize this system more clearly, and energetically.

"Experiments show that there are six positive and six negative degrees of fundamental transformation freedoms, which provide 12 alternate ways in which nature can behave most economically upon each and every energy-event occurrence. Ergo, there is not just one "other"; there are always at least 12 "others... We find that in the 12 degrees of freedom, the freedoms are all equal and they are all realizable with equal 'minimum effort'."

"The six vectors represent the fundamental six, and only six, degrees of freedom in Universe. Each of these six, however, has a positive and a negative direction, and we can therefore speak of a total of 12 degrees of freedom."

In 2D, circular unity can be graphically demonstrated by a circle divided into six individual but interdependent sections. The color wheel is a good graphic example of circular unity, and represents six discrete qualities of six individual but interdependent quantities represented by each section of the wheel. A circle can be divided into six distinct quantities, each with individual but interdependent qualities, i.e. unification of number and geometry.

In that six is the sum and/or product of the first three numbers, $1 + 2 + 3$ or $1 \times 2 \times 3$, it contains a harmonious whole number relationship with them, and is thus called the first "perfect number". The first instance of the harmonic synchronization of number and geometry (quantity and quality) occurs in the number six.

However, this prescription for circular unity is two-dimensional. The three pairs are each separated by the centerpoint which has no dimension. In order to formulate a spatial abstraction of circular unity, we draw three lines that interconnect the six face centers of a cube and enclose that cube within a sphere.

Doubling this two dimensional circular unity produces the first true Holotome (A), which is predicated on number twelve. This three dimensional holotome of six positive, and six negative symmetrical retrograde event identity axes is then also represented by the closepacking of twelve spheres about a thirteenth nucleus sphere. This produces the dodecahedron, (the primitive non-pi spherical module).

Synergetics modelling of space has radically departed from the XYZ models of Cartesian description. As we have pointed out, though it has been the standard in

science, the cubic model does not model the architecture of creation nor the energetics within systems. In **COSMOGRAPHY**, Fuller restates his premise:

"There is no such thing as a primitive cube, because it is impossible to find any position in which the three edges convergent at each of eight corners will interstabilize themselves at an omni 90 degree position. The way in which human society became academically hooked on the cube was by carving out rectilinearly dimensioned wall building blocks of marble while misassuming an inherent solidness to be demonstrated by the marble."

"Despite its universality and elegant economy, the tetrahedron has been all but ignored on planet Earth. Academic science references all its physical mensuration to the XYZ-three-dimensional coordinate system and all of its energetic phenomena to the c-g-s system, which represents the amount of energy required to lift 1 cubic centimeter of water to a given temperature 1 centimeter in 1 second of time. The cube is the chosen geometrical unit of volume measure, and the square is the geometrical unit of areal measure in all of today's world-around, state-of-th-art scientific activity, not to mention everyday use."

The Triaxial Retrograde Interface, however, contains the graphic capability to represent a virtual spacetime object. Nature's rules for assembly are based around the principle of tensegrity, tensional integrity. Every geometrical structure is a tensegrity. According to Ingber (SciAmer, Jan. 98, p. 48):

That nature applies common assembly rules is implied by the recurrence--at scales from molecular to macroscopic--of certain patterns, such as spirals, pentagons, and triangulated forms. These patterns appear in structures ranging from highly regular crystals to relatively irregular proteins and in organisms as diverse as viruses, plankton, and humans. After all, organic and inorganic matter are made of the same building blocks of carbon, hydrogen, oxygen, nitrogen, and phosphorus. The only difference is how the atoms are arranged in three-dimensional space.

Geodesic structure is the guiding universal pattern, the building code of nature. We invoke Dr. Fuller's entire body of work to clarify the preceding remarks.

Ingber is still arguing against the old paradigm for acceptance of his theories about geodesic forms in biological systems, even though they are readily visible. He states:

"The geodesic structure found within the cytoskeleton is a classic example of a pattern that is found everywhere in nature, at many different scales. Spherical groups of carbon atoms called buckminsterfullerenes or buckyballs, along with viruses, enzymes, organelles, cells and even small organisms, all exhibit geodesic forms. Strangely, few researchers seem to have asked why this is so. My view is that this recurrent pattern is visual evidence of the existence of common rules for self-assembly. In particular, all these entities stabilize themselves in three dimensions in a similar way: by arranging their parts to minimize energy and

mass through continuous tension and local compression--that is, through tensegrity.

...More broadly, all matter is subject to the same spatial constraints, regardless of scale or position. Thus, given these constraints, tensegrity is the most economical and efficient way to build--at the molecular scale, at the macroscopic scale and at all scales in between. It is possible that fully triangulated tensegrity structures may have been selected through evolution because of their structural efficiency--their high mechanical strength using a minimum of materials. ...geodesic forms, such as hexagons, pentagons and spirals, predominate in natural systems."

The basis of geodesics is circular unity. Circular unity is conserved through the fundamental increments of the Holotomic Sequence. Circular unity is conserved by the employment of prime numbers only. No redundant multiplexing is required by numbers that contains factors of division, as is the case of the factorials. Thus, the holotomes are the minimal numerical magnitudes to accommodate the maximum amount of consecutive factors of division.

When mapped out in a circular array, each of these mathematical entities produce a half-positive, half-negative, symmetrical retrograde mandalog. This is the direct, visual, **graphic syntax** of a Holotome. The Holotomes are non-arbitrary numerical moduals (dualistic unities). They coherently describe the interrelationships between numbers, particularly the primes. Ideal syntax has been hidden from view due to unconscious disregard of retrocity in at least one of the three primary axes of qualification.

"Ideal syntax" becomes possible through the concept of word contexts that derive from a rational correlation between quantitative notation and geometrical notation. This graphic syntax is embodied in the Holotomes as rational arrangements of numbers, words, and geometry. By them, we can access or convey information not available within our imperfect literary syntax. As whole systems, the Holotomes contain a definite structure which may be described in words, geometrical structures, graphs, diagrams, etc.

The Triaxial Retrograde Interface is the basic imaginary foundation for the descriptive mechanism of human language. All languages have this fundamental idea event in common, but this has yet to be fully explored through physiomathematical epistemography. Even though words fail to fully explain the many scenarios that abound in nature, they do point to possibilities and potentials. This is perhaps the archetypal basis of alphanumericics in protolanguages and

ancient, classical languages.

Models of Sacred Space

We have shown how six was considered the first perfect number. The results of multiplying or adding the first three integers produces six.

In the scientifically systematic discipline of numeronomy, the step from the first perfect number of six (which also represents the second form of unity as sixfold plurality) to the second form of plural unity (twelvefold), represents a step from a plane to a 3D volume.

Even though the T.R.I. is presented on a flat 2D surface, it can rationally represent or model the equation of a cube or sphere with its three ambidirectional axes, representing the six directions of spatial orientation.

Archetypally six represents spatial orientation in spacetime (four cardinal direction, plus a vertical dimension). In ancient times, this comprehension of one's position in spatial reality was essential to survival and renewal by contact with the spiritual dimension. Thus, many rituals and conceptual ideas arose around this recurrent theme. Geometry was always fundamental in this process.

The oldest models of this so-called sacred space were cubic, (quadratic magic circles and abstract cubes). The energetic component of geometry was not understood. The crux of the Syndex perspective centers on an energetic version of the cubic model and its geometrical duals, the octahedron and vector equilibrium. We might refer to this model as a cubic non-linearity.

Creation of such models revives the archetypal notion of primal creation, the emergence of something from "nothingness." Jungian, **Mircea Eliade** spoke of such creation myths in his book **The Sacred and the Profane**, stating:

"The creation of the world becomes the archetype of every human gesture, whatever its plane of reference may be. Every construction or fabrication has the cosmogony as paradigmatic model."

Even in our modern scientific thinking, this archetypal background is fundamental to our paradigmatic notions about reality. We cannot escape it, even if we try, since it is intrinsic to our being. Techniques of orientation, (aligning oneself to the directions), are designed for the construction of sacred space. The model for the creation of sacred space always begins from a center and projects horizons in the four cardinal directions. Psychologically, we always reside at the center of "our world."

The quadrated circle sets up the conditions necessary for us to enter into sacred time. Then, traditionally, we may contact higher forces through the medium of the sacred pole or cosmic pillar, the vertical dimension. Eliade points out the great importance of the notion of retrocity in this process.

"Sacred time appears under the paradoxical aspect of circular time, reversible and recoverable, a sort of mythical eternal present that is periodically reintegrated by means of rites."

When we enter this space, in a ritual or even in a thought-experiment, we experience the feeling of immortality, the sense of the presence of Truth, we feel "centered". Sacred space is equivalent psychologically to the "beginning."

The principle characteristics of sacred space are:

- 1). A break in the homogeneity of space;**
- 2). This break is symbolized by an opening where passage from one cosmic region to another is facilitated (i.e. between heaven and earth; earth and the underworld);**
- 3). Communication with heaven is expressed by variants of the Cosmic Pillar, which stands at the Center of the World.**

In Ego and Archetype, Jungian, Edward Edinger has identified this Pillar as a useful symbol for what he terms the Ego-Self Axis. It forms the link between ego-consciousness (or personality) and the Higher Self, or cosmic Truth. This represents both the conscious and subconscious mind working together in harmony on the transpersonal level. It is true perception of nature and reality in the timeless sense, or insight.

The old mythic models helped establish our relationship to the cosmos and our conscious relationship to totality. It is fundamental to our way of thinking, and explains why metaphor is an important aspect of scientific discovery. Our modern myths are couched in scientific language, mathematics, and geometry. Science has become our most believable "religion."

We therefore suggest the T.R.I. as a modern, paradigmatic representation of this ancient means of apprehending Reality. If, as Jung and Pauli have suggested, there is unity between psychological and physical realities, they share the same underpinnings. This commonality between psyche and matter (physics) can be expressed geometrically much better than through words alone.

An example from Physics is a six-vectored model for discovering Truth and manipulating alternative realities. This is a scientific, practical application of the cosmic model. For the first time, we can violate Heisenberg's Uncertainty Principle, regarding position and velocity of subatomic particles. By condensing atoms from photons, the quantum mechanics of the microcosm become visible in the macrocosmic. An atomic trap is created using six lasers focusing on a single point. According to **Cornell and Wieman, SciAmer., March 1998, p. 40-45:**

"The Bose-Einstein condensate [formed at the nexus point of the lasers] ...can be thought of as the matter counterpart of the laser--except that in the condensate it is atoms, rather than photons, that dance in perfect unison."

"Einstein showed that if a sample of atoms were cooled sufficiently, a large fraction of them would settle into the single lowest possible energy state in the container. In mathematical terms, their individual wave equations--which describe such physical characteristics of an atom as its position and velocity--would in effect merge, and each atom would become indistinguishable from any other...the condensate offers a macroscopic window into the strange world of quantum mechanics, the theory of matter based on the observation that elementary particles, such as electrons, have wave properties."

"But in the Bose condensation, the wave nature of each atom is precisely in phase with that of every other. Quantum-mechanical waves extend across the sample of condensate and can be observed with the naked eye. The sub-microscopic thus becomes macroscopic."

Thus, quantum physics transcends its microcosmic bounds into the classical realm of mechanics. There is a break in the homogeneity of space.

"Einstein's theory requires that the atoms in the condensate have energy that is as low as possible, whereas Heisenberg's uncertainty principle forbids them from being at the very bottom of the trap." [We can't know their position and velocity simultaneously].

*"Quantum mechanics resolves this conflict by postulating that the energy of an atom in any container, including our trap, can only be one of a set of discrete, allowable values--and the lowest of these values is not quite zero. THIS LOWEST ALLOWED ENERGY IS CALLED THE **ZERO-POINT ENERGY**, because even atoms whose temperature is exactly zero have this minimum energy. [vector equilibrium] Atoms with this energy move around slowly near--but not quite at--the center of the trap. The uncertainty principle and the other laws of quantum mechanics are normally seen only in the behavior of submicroscopic objects such as a single atoms or smaller. The Bose-Einstein condensate therefore is a rare*

example of the uncertainty principle in action in the macroscopic world."

Toward an Ideal Syntax

The three ambidirectional axes of the Triaxial Retrograde Interface represent the six directions of spatial orientation: up and down; right and left; fore and aft.

On the plane, in the form of the color wheel, we may regard it as circular unity represented by the six qualities or values of red, orange, yellow, green, blue, and violet. Note the three dipoles as harmony, complementarity and concomitance.

In the volumetric or 3D mode, we can regard the 12-fold unity as spherical or cubic and refer to Fuller's model of Vector Equilibrium with its 12 universal "degrees of freedom," representing nature's most economical movements of

energy. The 12 closepacked spheres around a thirteenth nucleus form the facets of a dodecahedron with its 8 triangular windows and 6 square windows, which yields 14 windows in all.

At this point we have a symmetrical and harmonizing synchronicity of quantity, quality, and form which also includes structure. These are the ingredients of a compound syntax.

The T.R.I. does not just deal with a special and isolated case of dynamic retrocity, but with the three basic pairs of opposing qualities that form the basis of generalized description. It is a graphic means of "holding the tension of the opposites," in a unified model. Such as thinking/feeling; sensation/intuition; judging/perceiving.

The Syndex perspective is not only about the intrinsic nature of number, but also the specific way in which number relates to the descriptive mechanism of human languages. The crux of the descriptive mechanism of language revolves around the Greek prefix QU as in WHO and HOW MUCH (identity and plurality) and of course, quantity and quality. This preceded the English prefix WH (as in WHO, WHAT, WHEN, WHERE, WHICH, and WHY).

This yields a sixfold coordinate system of the descriptive mechanism:

- 1 WHO Identity person A
- 2 WHAT Identity object E
- 3 WHEN Time duration I
- 4 WHERE Space extension O
- 5 WHICH Plurality number U
- 6 WHY Causality and/or HOW Y

Note also that the six vowels are all accounted for and figure qualitatively in the six primary axes of description. The fact that unity is plural and at minimum sixfold gives added credibility to the T.R.I., which is the fundamental paradigm upon which rests the symmetrical unity of the Holotomes.

The Sumerian alphabet contained exactly six vowels, three primary and three secondary, which suggests an interesting correspondence between ancient descriptive syntax and the T.R.I. in the color wheel.

In a nutshell, this is the epistemographic syntax found in the Holotomic Sequence through the multiplication of the twelvefold spherical unity of Holotome A. We multiply the higher moduals of spherical unity by the prime numbers in their natural order of occurrence.

The T.R.I. does not just deal with a special and isolated case of dynamic retrocity, but with the three basic pairs of opposing qualities that form the basis of generalized description. Keep in mind that the term WHICH is the only direction of the six that refers to plurality. The other five deal with ideas that could be seen as qualities.

WHO and WHAT are qualities that deal with identity (person, object), WHERE with space (extension), and WHEN, with time (duration). WHY refers to the quality of questioning. The first four qualities may refer to something that can be exclaimed, but the term WHY cannot be followed by anything but a question mark.

In the case of WHICHness, we mean the first instance of plurality or the number two. The second degree of plurality does not occur until the T.R.I. has itself been doubled into the form of twelveness, which involves three dimensional space, (in the form of the dodecahedron).

In other words: WHY, HOW, and WHICH are the only ones of the six that can be followed by a question mark. WHO, WHAT, WHEN, and WHERE, can be followed by an exclamation point and/or a question mark. The only exceptions are in exclamations such as: "That's why!" or "That's how!" or in any context where the WHY and HOW have been qualified.

In the case of the color wheel, we have the six qualities of visible light: Red, Orange, Yellow, Green, Blue, and Violet, which consist of three primary and three secondary colors, that is: three discrete pairs, or, a quantity of qualities.

Since the color wheel is represented on a two dimensional plane, it is not a plurality in a volumetric sense. We must fold (double the plane) in order to bring plurality into a three dimensional entity. The twelve spheres of the dodecahedron surrounding a thirteenth nucleated sphere is then a 3D representation of the Zodiac.

The most effective way to understand the quality of six is as the nave of the first holotome with 12 as the node. This also makes the node of Holotome B (24), and its nave would then be the node of Holotome A.

Each true Holotome can be represented as a circular unity, but may refer to a spatial or spherical unity. We find that this specific sequence of numerical quantities are the series of minimal magnitudes which accommodate the maximum amount of consecutive factors of division. When represented on a plane as a spiral, they are graphic depictions of symmetrical half positive, half negative retrograde octave cycles.

What may be deemed the foundation for an ideal syntax must produce a synchronetic interface between words, numbers, and geometrical forms. This graphic form of syntax which is in total synch with numerical notation produces the only valid presentation of physiomathematical epistomography. It even yields another quality of semantics, fulfilling the classical suggestion of a truly mathematical language.

All Holotomes are examples of circular unity in terms of four positive and four negative event octaves in a retrograde cycle.

The alphanumeric system of notation occupies such a closed loop cycle of 24 signs (Holotome B), 18 consonants and 6 vowels. Working alphabets may employ more or less signs but an ideal syntax requires the perfect symmetry of a Holotome.

The Sumerian cuneiform alphabet consisted of 21 letters (six of which were vowels) plus maybe 6 diphthongs making 27 letters. It was possibly formulated from information surviving the deluge, and we can speculate that its loss was involved in the confusion of the tongues (loss of ideal syntax).

Anthropologists regard language not just as vocabulary and syntax, but as a cultural phenomenon. The anthropology of rhetoric includes the social use of metaphor.

According to Colin Renfrew's theory, (SciAmer; Oct.98, pp. 106-114), the ancestral languages of the Indo-European, Afro-Asiatic and Dravidian groups originated quite close together in the Near East about 10,000 years ago.

"The people who built Stonehenge and the other great megalithic monuments of Europe were Indo-Europeans who spoke a form of Indo-European ancestral to the Celtic languages of today...In much of northern Africa the dominant linguistic group is the Afro-Asiatic, which includes ancient Egyptian and the Berber languages as well as the Semitic group. The Dravidian languages of India, and later proto-Dravidian tongue would have been displaced by the Indo-European languages that are now spoken in India."

It has been proposed that, "a number of Eurasian language families, including among others, the Indo-European, the Afro-Asiatic, and the Dravidian, are related in a "superfamily" they called the Nostratic. The recognition of such superfamilies, which may represent a breakthrough in linguistics, is still regarded as controversial."

These studies have indicated that there is a close genetic relationship among the speakers of the Afro-Asiatic, Indo-European and Dravidian languages, among others. In southern India, Dravidian influence still prevails, while northern India is Aryan (Indo-European) influenced.

Researchers link the coming of agriculture to the formation and distribution of present-day languages. "Protolanguages and language groupings as far back as 10,000 B.C. may ultimately open the way to a better understanding of the whole phenomenon of human linguistic diversity." Renfrew.

According to Berendt, "The old concept of relationships existing solely between languages of the so-called "Indo-European family" cannot be upheld any longer. As the new science of paleolinguistics has shown, there is only one language family, the family of human languages--period. Like so many other myths, the myth of the Tower of Babel is true: In the beginning, there was only one language!"

When linguists trace word sources back along etymological lines, they call the process "feedback," because it is a recursive movement. Linguists have also shown that many primal roots have a so-called mirror root, which does not simply negate the meaning of the primal root but rather reflects it into new dimensions. Consider the derivation of the western Amen from the eastern OM, when it moved from India to the Near East and into Europe:

"The change of sound from OM to Amen reveals two totally different kinds of existence. Amen is a subdivided OM, partitioned into O and M, with each of these parts being further embellished. This happened when OM migrated west, first to Israel and then into the Christian world of Europe. Along this route it was subdivided into its component parts--just as everything that comes to the West is divided and taken apart, analyzed and dissected. It all seems like the opening move of a truly royal game of chess, like an overture for everything that was yet to come, when one realizes that this process of taking apart and subdividing was heralded thousands of years ago--back when OM became Amen...Indeed, the change from OM to Amen in this way becomes a formula for what separates the East from the West."

Alphabet is a finite closed loop of holotomic character (numeracy preceded literacy).

Ideal syntax depends on the logic contained in the structure of the holotomic sequence. The possible restoration of prediluvial science proceeds from an understanding of number behavior in terms of geometrical form.

Graphic synchronicity of quantity and quality occurs in the context of the T.R.I. It dovetails with the Pythagorean 3:4:5 triangle as the fundamental prototyping which projects its image in an omnidirectional retrograde octave unity of harmoniously polyaxial integrity. It synchronizes geometry, number, and the two ambidirectional operations of arithmetic. As Fuller noted, addition is reverse

subtraction and you cannot multiply anything without dividing something.

CONCLUSIONS

Numeronomy, or the laws governing the behavior of the continuum of quantitative notation is the natural result of numerology, the study of number, with or without the "woo-woo" number mysticism which degrades its historical reputation.

Numeronomy is the outcome of the right quality and quantity of successful cogitation and proper insight. The numbers speak for themselves through structure and behavior. Each flash that went into the discovery of this grand nexus of synchronetic complexes was beatific joy.

The six key discoveries of the Syndex Theory have always been available to everyone. However, in my own life journey, they emerged through my self-reflexive dialogue with nature and the nature of reality. On the chance I have been understood by the reader, I hope I have been able to impart some choice tidbits.

It was my truly mystical luck to meet and talk with some of the most significantly accomplished beings in the modern world. I had to go after these giants, but I wanted to get right to the source, rather than simply reading books. Kinesic sign language delivers the gist of a subject which might otherwise require tomes. Once Bucky Fuller indicated the two four-vertexed-each tetrahedra with three fingers of each hand. That graphic gesture imparted a profound insight, a preverbal communique.

When we talk about number, we are also talking about talking. Number/geometry is the fundamental cornerstone of human communication and specifically the alphanumeric principle of descriptive notation. The T.R.I. reduces thousands of words down to a principle that contains the fundamental elements of the descriptive mechanism of language in general. It simplifies the numerical/geometrical essence of language, which is primarily a way of describing the empirical scenarios of something we call nature.

Ultimately nature and universe may be unknowable. But arguably, truth is born of arithmetic because two plus two is definitely four. In itself number, the source of truth, means nothing. But how we apply it to theory is science which distinguishes us from most other creatures. But not enough to count much in the vast panorama of evolution!

The T.R.I. represents the geonumerical basis of the sequence of minimal pluralities that accommodate the maximum amount of dividing factors. This special series is terminologically designated as the Holotomic Sequence (holo- as in holistic; tome as in book or information containment module).

The holographic aspect of this sequence is that each member or tome contains all of the geometrical qualities and numerical quantities of the previous holotome, plus the added degree of data content over the previous module.

A major feature of these data modules is a retrograde symmetry in the form of a half positive and half negative octave system predicated on the octave nature of the so-called base ten system of number.

The full significance of this most simple observation has escaped the understanding of all previous number theorists. The base ten system of number is an octave system, where either one or nine can be seen as a null value event.

Furthermore, this octave can be regarded as a cyclic function. The zero, one, or nine can function as the null event which acts as the null value gap between the

beginning and ending of the octave retrograde cyclation, due to its half positive and half negative symmetrical cycle (which may negate the numerical value of one or nine just as if they were of the same nature as the zero).

A good example of the symmetrical retrograde octave cycle can be seen in the multiples of nine, where the nave of the retrograde reversal occurs between 45 and 54, or precisely at 49.5:

9 18 27 36 45 54 63 72 81 90
49.5

half forward half reverse

full octave

Due to the octave nature of the eight true numbers, no transpalindromic sequence can exceed an octave cycle.

As simple as this is, the greatest math experts in modern times have totally overlooked this crucial element to the proper comprehension of number behavior. The very phrase "Number One" is self-contradictory. No wonder the ancients designated zero or one as Aleph--THE FOOL....

This overview led Marshall to the epochal rediscovery of the 99 CYCLOFLEX, an abbreviated term for octave cyclooscillation, which is the long sought exemplary base wave that continues indefinitely through the continuum of the base ten system of quantitative notation.

We have adopted this valid term to help clarify the behavior of the cyclic and reciprocating nature of the interaction of nine and eleven in the exemplary 99 wavecycle. Further abbreviation of cyclooscillation is the shorter term, cycloflex. In each cycle we have a full oscillation: one up and one down (or fore and aft). The cycle to wave ratio in the holotomes is that a whole number series of oscillations can occur in one complete 360 degree cycle.

In the 99 CYCLOFLEX, we have 49 1/2 numbers that are either palindromes or transpalindromes. There are in fact twelve discrete classes of number, determined by whether a number reversed falls in the same class or is a combination of two classes. An example is number 16, the only two-digit square that is a prime when reversed as 61.

The retrograde symmetry of the 99 CYCLOFLEX is complex and cannot be seen without the adoption of the TWELVE GLYPHS described at length elsewhere, (Part Three).

The step from circular unity described in the color wheel to the cubic or spherical unity of the T.R.I. is accomplished by doubling the first perfect number which then may be expressed as the 12 spheres all touching a thirteenth nucleus sphere producing the triangle/square surface of the dodecahedron.

Altogether, this in effect establishes the synchronicity of number and geometry on a plane and then produces the first instance of spherical and cubic synchronicity of number and geometry in 3-dimensional space.

The triangle is an expression of number three as a minimal plane synchronicity, and the tetrahedron a minimal expression of 3-D spacetime and number four. By forming the dodecahedron, we achieve a spherical symmetry which begins the sequence of homotomic close packing which can also be represented on either the surface of a plane, or the volume of 3-D space. An analogy can also be made between the point, the line, plane, and cube. Number is just another name for geometry.

Throughout recorded history, the Auric Key is manifested in myriad ways and under a wide variety of titles: THE PHILOSOPHER'S STONE; the white stone, the holy chalice, the Emerald Tablet, etc.

The esoteric traditions of the Sufi masters and the basic tenets of all major religions dealt exclusively with these universal laws of nature, which may only truly be expressed in the universal nature of number/geometry.

But for the most part, the true understanding of these laws have remained dormant in human understanding, due to the inclinations of human avarice, greed, and hate in the interpretation of the most ancient and holistic meaning contained in the original notations from deepest antiquity. In other words, at various times, they were intentionally concealed from the profane for a variety of self-serving purposes.

This is why, as we approach the Millennium, Syndex offers a radically new perspective--one open to all who would understand. This is not the threshold of the Apocalypse and destruction, but the threshold of the new Epoch, the Epochalypse, a bold new era for mankind, based on fundamental harmony and understanding of nature and nature's laws essential to our continuing survival.

(Editorial Note: Unscanned graphics include Triaxial Retrograde Interface; general alphanumeric correspondences; alphanumeric corr. with zodiac signs; corr. of colors and vowels; tables of foreign alphabets; Cube of Space, etc.)

CONCLUSION

THE FOUR BECOME ONE

SYNDEX PERSPECTIVE

Singularity to Spherical Unity
Experimental Syntax of Numeronomic Concern
Total Retrocity
Comments on the Definition of Notational Plurality
The Banishment of Ambiguity

USHERING IN THE MILLENNIUM: A NEW EPOCH FOR MANKIND

"Symmetry also exists in number theory, which concerns itself with the properties of numbers. This symmetry is violated or hidden from us, by certain habits of thought; only a small number of people, whose minds work somewhat differently, can see this symmetry."

Joe P. Buhler
Science 85, Nov.

My personal contemplation of the sequential behavior of number actually began around 1957 when I engaged myself in a translation of the biaxial Mendeleev Table of Elements. I spiralled them in a paraphrasing which elucidated a number of very interesting coincidences regarding the positions of the inert gases, active metals, etc.

Many coincidences jumped out as valid synchronicities. I began to view and think of this compound spiralic complex of identificational events as the spectrum of atomic stability modulations which exuded a totally rational series of major interrelationships. The game was afoot...

At the time, Glenn Seaborg, then Chancellor at Berkeley University was engaged in the cyclotronic extrapolation of the transuranium elements and the half life of these quasi-elements was approaching a brevity that suggested a mechanical problem with identifying the "new artifacts" before they vanished back down to the preceding identity. The number of the current (at that time) element being in the neighborhood of #108, which coincidentally was, according to Paramahansa Yogananda the ancient Hindu number of the Universe: OM.

At this point in my path or trajectory toward oblivion, I am 68 years dead. I view some of my struggles to elucidate these findings as rather naive. But it was all very instrumental in the development of physiomathematical insights that are totally valid and will, without doubt, produce a noticable impact on the future of valid scholasticism in the various branches of scientific inquiry and opinion.

The words science, truth, and reality have their source in number/geometry/arithmetic and mathematics. Number/geometry, (which includes two fundamental ambidirectional operations of arithmetic: addition as reverse subtraction and no multiplying without dividing), is the solitary source of industrial civilization via applied mathematics.

It has been most surprising to me how little is realized about the intrinsic nature of the base ten continuum of number by the modern physicists who use these tools with incredible results. Yet its commonly known that any tools can be used with success even though very little can be properly understood by the actual mechanic.

The line of demarcation that separates number/geometry and the fundamental operations of arithmetic from mathematics is not such a clear cut set of distinctions. To solve this problem for the sake of syntax and semantics I have found it mandatory to produce a legitimate label for the very core of the descriptive mechanism of language.

A graphic platform by which an ideal form of syntax can exhibit self-replicatory, or self-referential characteristics. Although based on what may be regarded as self-evident ideas, the very act of producing a legitimate title of self-description has proved to be a function of enhancing simplicity and also produces the no so clear courses of paradox and ambiguity that plague conventional syntax with confusion of an otherwise unclear source.

My graphic platform for all fundamental descriptive functions is the TRIAXIAL RETROGRADE INTERFACE, and since the term is most aptly to be repeated in various ways, I have abbreviated it as T.R.I.

The importance and significance of the quan/qual alphanumeric graphic scenario is beyond most of us, but lies in the realm of Fuller's "physiomathematical epistemography."

The present document removes the most serious glitch in the behavior of human mentality even though it remained undetected for the past 6000 years: the enigma of the sacred number seven, and distribution of prime numbers.

I can make this seemingly presumptuous statement with total confidence because number cannot lie. Truth cannot exist in any other arena than nature herself. I can and will be misunderstood by many, but I shall never be disproven by anything other than faulty logic and various authorities who depend on the erroneous assumption of their most admired peers.

Paradox, ambiguity, and chaos do not exist in any reality. There are diverse forms of reality (perception and conception come in a variety of flavors). They are produced by the mismanagement of the logic produced by the systematic geonumeric production of mathematical proof.

First you need an absolutely perfect alphanumeric system of signs predicated on a perfectly symmetrical and harmonious retrograde octave circular unity that is totally immune to the wily and clever entrance of erroneous ideas that are usually spawned by the greed of human ego and self-aggrandizing motivation, i.e. wealth, recognition and power.

Fame, wealth, and longevity make up the formula for war in the name of some local representative of some higher cosmic power. This is only possible because we think with words. If the format of our syntax is in any mathematical error, our thinking is in error. The formula for an ideal syntax has been available since prehistory, but the various forms of ego hunger have with clever intention, sabotaged the right inheritance of the human mind--clear, rational thought.

The legend of the Tower of Babel -- the confusion of the tongues -- is not a myth. It is real.

The Syndex initiative is the proposition to remove the cause of human ignorance. To take a serious look at the ways that politicians and religious leaders are consciously seducing the minds of children with precepts, concepts and consequently perceptions and conceptions that threaten to destroy all living things.

The technology to do exactly this is now in place and only awaits some psychotic "authority" to push the button.

Utopia or oblivion are the options of the spirit, whose only guide is the truth invested in the numbers and forms that dictate the words with which we think.

It is time we become familiar with the source of our very imagination. Or is our imagination the product of some source beyond anything that we can even imagine?

On some matters, words are impotent puffs of wind or meaningless swiggles of ink on paper. Nothing more. On other matters they are tools of miraculous transfiguration and the mechanic skilled in their utility can change the world, or even the cosmos, or at least our perception of it.

The most frustrating situation in the world is to see something with crystal clear vision and not have the combination of terms to share that picture with somebody else. One problem is that when we emerge from diverse sources, it is difficult to rendezvous in a similar complex situation in order to compare our totally unrelated illusions? Why doesn't some big chain outlet merchandise synchronicity on a roll like scotch tape?

As much as I can, or may, I try to make a letter into a word, a word into a sentence, a sentence into a paragraph, a paragraph into a page, a page into a chapter and a chapter into a book and book into a library.

But my favorite aim is to make a page into a book and I do this by what I call graphic syntax, which I don't try to explain.

With circles, squares, triangles, numbers, and arrows (pronounced Eros, but spelled with the Greek letter phi [Eros]), I make my pagebooks to maximize information and minimize notational componentry.

I do not have a picture in my head of an ideal member of my audience. My audience is me. I write only to satisfy my sense of being, and also to have at least one valid critic who is myselfishness.

Since I deal only with numbers, I cannot lie. Maybe I make a few mistakes, but by being human I'm entitled to do that with immunity. Most considerate readers enjoy being intelligent enough to find mistakes in things good enough to be published.

However, it is number that acts as the judge of all logical proof or Truth, and without the concept of plurality there would be no science or system which is the real source of all that which we call valid or true. Take away number and its other side which we call geometry and science and descriptive language disappears and we are left drinking water

out of a ditch and growling at each other whenever we don't get the biggest share of the available nutrients.

Number/geometry is my subject--not mathematics! The two ambidirectional operations of arithmetic are the tools and math is what happens when we manipulate these primary tools. This distinction between the tools and the product of their utility is a most primary concern, so try to make a special note of that.

I indulge in intentionally calculated redundancy. I think of this strategem as taking a 360 stroll around the artifact under consideration instead of viewing the object from one perspective and expecting the viewer to be in the same orientation as myself.

This is partially due to my lack of faith in dictionarity, much of which has resulted since I've concluded that the computer has virtually become the judge of which words to include and exclude.

The whole concept of lexiconography is in need of revision, but this is not possible until semantics itself can find its proper scientific niche with a solid basis in a scientifically systematized format which is based in ideal syntax.

The T.R.I. with the six vowels and six interdependent facets of description is only a step in the process of enhancing the true relationship of quantity and quality. The Holotomic Sequence is the magic crystal that produces the valid logic of the prehistoric source of 360 degree circular unity, upon which rests the metrology of our current universal industrial culture.

My source of etymological and epistemological insight was due to a collection of dictionaries lost to fire in Idaho in 1964. One was prewebster before English had 26 letters.

My number interests began when I noticed Paramahansa Yogananda mentioned that #108 was the Hindu number of the Universe: OM. I decided to do a radial version of the Mendeleef biaxial display, and needing a limit for my array I coined a term "Infusorium." When many correspondences and synchronicities emerged, I assumed the ancient Hindus were onto something very modern in terms of number technology.

My initial attempts were somewhat naive, but now we have the T.R.I. which is the tool box. Number/geometry and the two fundamental ambidirectional operations of arithmetic are the contents of this box. We draw a line between the tools and the work performed: a rational and operable context in place of an unorganized regard for words that can change meaning through the context in which they are used.

The intrinsic nature of the number continuum has been progressively forgotten in that once we learned how to use these tools, there was not much use in understanding their fundamental nature. This does not necessarily mean that this ancient knowledge is of no present use. Time changes everything.

But this is not my concern. I am a numeronomist, not a mathematician.

TOTAL RETROCITY IS THE KEY TO RATIONAL SYNTROPY

The number one, (even though one is not a number) function of universe is retrocity.

There are three interactive axes of retrocity to be exact. These three ambidirectional axes cross each other in the center of our conscios regard for that which exists in front of us, behind us, to our right, to our left, and above and below us.

A fourth element of retrocity also seems to exist, but not in an axial sense. It is actually a synthesis of the other three. We will call this the inward and outward which are such perfect reflections of the three basic retrocities that the micro and macro universe are actually transverbal identities of such nature that no one can really know which is which.

Though there doesn't seem to be any way to prove it, the macro is the micro and visa versa. Three basic axes of retrocity cross the centrum of the fourth synesthetic retrocity in such a way that what we refer to as universe is actually a four dimensional ambisymmetriverse. Everything is the actual reversal of what it appears to be. I call this the theory of total retrocity.

This theory does away with the absurdity of the Big Bang, and accomodates a comprehensive idea of total time reversal inasmuch as you are required to ignore some specific direction in order to observe its opposite.

There are rare cases of people who have the ability to remember bits of the future. Just like it is possible for most of us to forget bits of the past.

So far I have worked out the logical mechanics of total retrocity in the realm of number. Since number is the fundamental platform of the alphanumeric system of linguistic notation, it is only a matter of turning myself wrong side out in order to clarify my vision of total retrocity to those who are totally incapable of looking in all directions simultaneously without getting dizzy.

The source of absurdity, ambiguity, and chaos can be found in the process of descriptonal mechanisms that begin in the idea of retrocity. One is not a number, but an instance of singularity, and singularity is not reversible.

Two on the other hand, is the first instance of plurality and being composed of a pair of singularities can be regarded as a duality which gives rise to the idea which in turn permits the concept of a dualism of identity. It therefore creates a context for the notion of retrocity.

The major source of terms in any dictionary is names and their antonyms, up and down, hot and cold, ambitious and lazy, i.e. most of descriptive language is polar, which accounts for the importance of number two as a primary idea. Whether two is actually a prime number has been a fundamental issue that is the height and depth of abstraction. It is totally uncontentplatable.

Number three has the important distinction of being able to represent a plane. The ideal form is a triangle. It may be said that a triangle is a qualitative representation of the quantitative number three.

In a similar sense, four has the distinction of being able to represent a geometrical volume, the ideal form being a tetrahedron. In this case it may be said that a tetrahedron is a qualitative representation of the quantitative number four.

This preamble is to bring notice that only six of the base digits can represent three-dimensional spatial figures, i.e. six quantitative signs that possess the qualitative features of space occupying entities. The majority of problems that number theorists have had in synchronizing number and form (geometry) has been due to the issues here pointed out.

Part of the reason that six is the first perfect number is because only six of the base numbers deal with volume space.

Number twelve is the first ideal synchronicity of quantity and quality because the dodecahedron is 12 spheres all kissing a thirteenth nucleus sphere. It is a plural synchronicity of quality and quantity.

We start by realizing that the descriptive mechanism of language has a serious flaw, because in nature a paradox just does not happen. Ambiguity and paradox result from ignoring at least one half of the three ambidirectional axes of spatial description.

In regards to the behavior of the number train this can produce confusion regarding positive and negative numbers, separated by a zero null event and the exemplary 99 octave cycle whose nave is 49.5.

Retrocitivity is the word that involves all three ambidirectional idea events that encompass the minimal parameter of the descriptive mechanism of human synfusion.

I can never think of myself as imparting information alien to my listener. You either already understand what I'm saying, or else you don't, in which case more words and pictures will only confuse matters worse. This is because of a very simple and fundamental error in accepted syntax. The T.R.I. is the physiogeonumeric picture of the semantic substructure to which we refer all quantitative and qualitative scenarios presented to us by the anonymous wonder we call Nature.

This is a book about an ancient knowledge of number and geometry that has not been recalled by educational institutions for over 6,000 years. It is primarily a document of pictures, called Synchrographs that reveal important rational aspects of numerical behaviors which concern cyclations and reversals in graphic methodology. They are impossible to recognize without such innovative epistemographic disciplines, such as this resurrection of ancient knowledge.

Number/geometry helps us think about complex systems. Quantitative notation is the initial spark that transforms our brainscape into a problem manipulating mechanism. This ultimately transfigures both the way we show the world to our inner self, and also

transforms the mechanisms by which we understand why such an inner self should even be.

If any singular notion should be raised to prominence as fundamental to all thought functions, it is the idea of retrocity. This idea is initiated within the context of number two, which stands as the first actual number and consists of true plurality in that singularity is duplicated or folded in half, making one half the same yet different. Both sides share the opposite being of each other as a unity. Duality or twoness is dependent on the idea of retrocity.

Or, it can be said that retrocity is prequantitative. No speculations can be considered appropriate to the analysis of plural notation unless retrocity is recognized as a necessary element of the context of description. Any description of quantitative notation that ignores the function of retrocity in any one of its three basic modes is doomed to ambiguity or paradox. It is on this note that we predicate a comprehensive description of quantitative/qualitative epistemography.

Our kindergarden (or Eden) experience cannot forewarn us of the hair-splitting, semantic loop holes in the fundamental ideas that have gone into the formation of the alphanumeric principles of "thinking with words," on which our view of the cosmos initially depends.

In the complex and long-winded philosophic overviews of formal logic, much has been occulted of the supersimplistic nature of human communication on its most concrete level. This is especially true due to terms of such elevated levels of abstraction that all actual meaning is totally non-existent, yet we place such terms in the very positions critical to syntactic function.

To the Anglophonic mind, the word God is synonymous with number, not because the Tetragrammaton is a cosmic quartet, but because God discovered the word in six days and the word was with God, and the number of his creation was six...

Other words, like infinity, instantaneity, eternity, etc. have no other meaning than that which we impress by virtue of some indistinct function of the imagination.

Discrete levels of finitude in an octave loop of four progressively additive and four subtractively negative event octaves with a ninth null event can be said with a 3-dimensional picture on a 2-dimensional surface. All we need do is keep in mind the fact that the map is a shadow of a purely imaginary scene composed of data. It contains no true information of any kind. All perceptions are filtered through the sensory and mental processes, and are therefore second-hand to any "objective reality."

The SYNDEX initiative strives to eliminate the non-essential and problem-creating terminological habits of the presemantic world. If, in fact, prediluvial beings informed the Sumerians with a twenty one letter alphabet, (six of which were vowels), they no doubt had some terminological equivalent of the sacred words semantics, the knowledge of an ideal syntax. Syntax requires that the meaning behind syntax is the function of semantics as an operation of physiomaathematical insight.

Talking or writing about words is a self-reflexive closed loop in itself. A true tool must be able to remove itself from the job it must perform. This lesson was required in order to investigate the relationships existing between number and geometry which can only occur inasmuch as one cannot exist independent of the other.

Arthur Young's REFLEXIVE UNIVERSE constitutes an exercise in double talk, which is useful because it touches a chord in the most rational mentalities. His next work, **CYCLOREFLEXIVE UNIVERSE**, does not alter the theme of his thought but merely shifts its point of equilibrium. This is the result of the synchrographic perspective which merely adds definition to a picture that is already correct, but fuzzy to minds that contain "tastes" where "flavors" ought to be.

Many modern authors dance in, around and about the Auric Key. They come close to its essence but do not penetrate its grand essence, which can only be alluded to by invading the sanctity of static dictionarity. With all its historical changes, the dictionary with its multitude of translations and interpretations is by no means a process that is about to crystallize into an eternal repository of all proper and legitimate thinking.

The alphanumeric/epistemographic gesture being a process cannot deal with a perfection that exceeds the human dream until the deepest dream can loose itself from the shackles of qualified plurality.

Two great books of the Old Testament are **the Book of Numbers and Deuteronomy**. To follow these through the Hebrew, Greek and Latin translations and into the modern Anglo discloses an unbroken series of numerical ratios both in terms of Gematria and general Numeronomy that are totally independent of interpretation. This matter is the meaning of the genii which is singular of genius who is everyone else. With that exemplary wave, we are about to ride to a clarified vision of destiny on the bright horizon of mystical exactitude.

Epistemographic syntax is the ideal beginning for transcendental vision, but many strange and forgotten scenarios preceded even that.

So, never lose sight of retrocity in any one of its three fundamental situations. We can follow it back to the source.

The source of my animosity is the neglect of retrocity. To really get a-head, you get the monster by the tail and never ever turn loose for any reason whatsoever. For the monster will take you to a place where no one has ever been for a time beyond measure. It is like the serpent Ourobouros which devours its own tail, eternally recycling itself.

Dictionary definitions show us the deficiencies within our thinking. I am shocked at not finding the word retrocity in any polylingual lexicons. Even the definition of the word retrograde is insufficient: going or moving backwards, apparently moving from east to west as a planet; **BECOMING LESS HIGHLY ORGANIZED**; to go backwards. As if it were an entropic, not syntropic concept!

To prove the point, **J.S. Bach's Retrograde Fugue**, or Crab Canon is, in fact, an example of a higher form of symmetry where the second half of the overall score is a perfect reversal of the primary half.

This is the definitive meaning of the term symmetry, where the structure or form of morphological unity represents a perfect mirror reflection of either/both of its two sides. Symmetry is ambiretrocity, pure and simple. The term retrocity is a most vital concept in the Syndex analysis of number behavior. The reverse nature of the number continuum has been totally neglected in the classical regard for the baseten continuum of quantitative notation.

The fact that palindromic numbers occur at seemingly chaotic intervals would seem to prompt an investigation of the possibility of their transpalindromic counterpart but so far as I have been able to deduce, no one else has pursued this proposition.

The TWELVE SYNDEX GLYPHS identify the ambidirectional character of any individual numerical signature. They are totally necessary in the exploration of number behavior. We cannot describe the true nature of the numerical continuum without the systematic mechanism of ambidirectional distinctions made manifest by this or some similar graphic procedure.

Even though an infinite progression of quantitative identities exist, as far as we wish to pursue distinctions, we have in the Holotomes twelve transfinite classes of number. They permit a wholly rational sequence of interactive moduals of finite and therefore rational behaviors. They permit the physiomathematical syntax that is not possible without an interdependent range of finite levels of arithmetic congruency not available to an open-ended series of quatitative labelled plural identifications.

Discrete levels of finitude within other discrete levels of finitude is exactly what is occuring with the addition of each subsequent addition of integericity. With the recognition of the twelvefold nature of numerical classification, we abandon the absurdity of the infinite continuum of number, which leads us nowhere.

We opt in favor of a totally structured continuity of circular unities that interact in a rational epistomography that involves the essential arithmetic that distinguishes quantity, quality and the whole range of operations that we refer to as mathematics.

The primes do in fact occur in a totally rational order which is of such an elegant and rational distribution that it makes one wonder why it went unnoticed for millennia.

Each of the major sacred or holy books contains the key to this ancient enigma, but so far as I can ascertain, I am the only dividual to successfully interpret the crucial information to find the embedded pattern. The major key to the orderly distribution of prime numbers is revealed in the distinction between palindromic and transpalindromic number.

Unless one can add, subtract, multiply, and divide with total ambidexterity, he has no right to deem himself a number cruncher. But, an excellent numeronomist can say with St. John, "Here is wisdom, let him who has understanding count the number of the beast."

Maybe historians deduce it to mean Nero Caesar, but for our purposes it is the beast which bites its own tail--the number continuum.

It is a contextual field of number, whereas two 3-digit palindromes synchronize with a pair of two 4-digit transpalindromes. The number 666 is the accumulative sum of the first thirty six numbers added together and number 36 is the square of the first perfect number, in that $1 + 2 + 3 = \text{six}$ and $1 \times 2 \times 3 = \text{six}$. That this writ transpired on the twelfth day of the second month at seven o'clock is not to be ignored in the scheme of numeronomy.

Once: 666

Twice: 1332

Half: +333

Reverse of twice: 2331

GLOSSARY

AURIC KEY: #2520; also the node of Holotome E. The first and lowest number divisible by all base digits.

CYCLOFLEX (Cyclooscillation): Hyphenation of the terms cyclation or rotation and reciprocation or oscillation; contextual association with the glyph. Short form of Exemplary 99 Wavecycle, also referred to as 9/11 wavecycle.

HOLOTOME: A symmetrical geometrical modular unity, composed of the minimal number divisible by the maximal amount of consecutive factors of division.

MANDALOG: A circular or spiralic array of signs, symbols, or glyphs that interrelate number to geometrical form.

NUMERONOMY: The science regarding the systematic laws determined by the interbehavior of geometrical forms and quantitative notation.

PALINDROME: A number which reads the same forwards or backwards.

SYNCHROSTAT: A situative locus in the number chain where specific factors group, i.e. 210 is the minimal number divisible by 5,6,7.

SYNCHROGRAPH: Spiral number wheels; non-arbitrary modules which disclose special synchronicities and symmetries in the number continuum.

TRANSPALINDROME: The reflective pair apart from each other in the continuum; the reverse identity of any number to exceed a single (unreversible) digit: example, 12 - 21. When reversed, the transpalindromic nature of number yields a discrete series of behaviors that are otherwise unnoted without graphic

disclosure.

Editorial Note: Clearly, lack of graphic support leaves many gaps in this website, as it stands. But all these graphics are complete and will be included as they are scanned onto disk. Some are so large as to be unreadable on any computer screen at this time. The truly interested and courageous may e-mail Bob, requesting xerox copies for themselves which complete the text, and make the concepts contained herein quite clear. There are literally reams of number charts and tables, which Bob has prepared over many years. It will help if you state your areas of interest and expertise. This site will expand as time and space permit until, eventually, the whole work is revealed. However, the work is complete now, except for occasional musings, corrections, and new supportive findings. This work, in highly revised and simplified forms, is also seeking a publisher. Thanks for your interest, patience, and feedback. Check back frequently-- much more to come...

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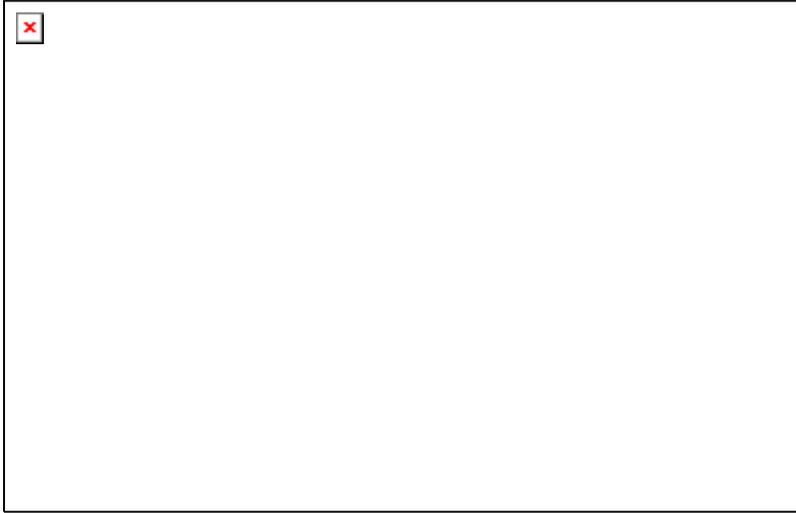
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A Synergetic Revisioning of Number Dynamics

In Light of Ancient Metrology
& Modern Cosmography

by Robert Marshall and Iona Miller
c1998



"Bob and Iona's Adventures in SUM AREA"

SYNCHROGRAPH C:

#108, AUM or OM,

THE NUMBER OF THE UNIVERSE

by Robert Marshall and Iona Miller, c1998

Number Mysticism and Alphanumeric Writing
Cosmic Cycles and the Doctrine of Yugas
The Hindu Concept of Number

The Surya Siddhanta Synchrograph C: Mandalog of the Universe Synergetic Base Ten Number Dynamics

ABSTRACT: Syndex II is about the process of discovering synergetic, rhythmic symmetries on a graphic enspirament called Synchrograph C. On this number wheel, the natural numbers are spiralled 60 times around a radial array of 108 increments to the number 6480. Contemplating the C-Graph over the years has produced several revelations, including the following Holotomic Sequence: 12, 24, 72, 360, 2520, 27720, 360360, 6126120, etc., created by prime number multiplexing, and the exemplary 9/11 wavecycle (a +4, -4 basewave).

This book is *not* about number mysticism, or numerology. No occult theory of numbers is presented, no cosmic code of alien descent, no ideologies. Rather, it outlines the history of numbers and writing and the ancient science of astronomical measurements. Classical cultures are characterized by certain general basic ideas, of which metrology is foremost. We show why certain cultures considered certain numbers "divine," and why we should turn our attention to them in modern times.

Most of these numbers seem to have originated in Sumerian culture and are the result of geodesic and cosmological measurements (such as the Precession of the Equinoxes) discovered thousands of years ago, in the mists of prehistory. These numbers are important in certain inherent rhythms in the base-10 system of numeration. These synergetic qualities have hitherto remained unnoticed in classical number theory.

INTRODUCTION

to the Philosophical and Scientific Background

"Number makes its appearance in this context as the vinculum amoris, the bond of love which unites the two principles [psyche and matter] by jointly ordering them. In its profoundest sense number thus possesses the significance of an all-uniting Eros, although it connotes something different from the usual sense of the words love and Eros...Because there seems to exist such a clear spiritual "objective" order at the base of Eros, it is expressed in the seemingly abstract, feelingless, impersonal order of numbers, as a clear, immutable factor free from illusions...this cosmic ordering of the Self constitutes the ultimate mystery behind all human desire and behavior, an unfathomable and fearsome mystery."

M.L. von Franz, *Number and Time*, p292-3

"The unexpectedness of a mathematical result gives us the feeling that it is not our own creation, that the world of number exists in its own right, while its necessity and symmetry are balm after the ragged edges of life, or pure joy to those who do not yet know them. The appeal of mathematical form reaches deep into human character."

L. L. Whyte

"Very vigorous applause your very intelligent, scientifically systematic synchrograph evolved elucidations binomial symmetries, tantalizing manifestations...which to me clearly related several fundamentals...Your cyclic synchrographing work clarifies and

simplifies this whole matter to an epochal degree...your work fills me with joy."

B. Fuller letter to Bob Marshall, 3/3/81

NUMBER MYSTICISM & ALPHANUMERIC WRITING

Number mysticism reached a zenith in ancient Greece, since the Greeks were fascinated with the essence of the integers themselves to the point of worshipful devotion. The relation between numbers (and number words) and magic remained alive throughout the ages. It is visible in Pythagorean and Platonic philosophy, the Qabala, and various other forms of religious mysticism.

The Pythagoreans believed that numbers were the key to understanding the order of the universe, and to them numbers meant whole numbers or integers. They believed that the soul could ascend through the spheres, to eventual union with God, by means of mathematics. This peculiar fascination with numbers as individuals created an obstacle to developing a collective theory of numbers, i.e. arithmetic.

The main thread of the number concept in the crossroads cultures passed from Sumeria-Akkadia-Babylonia to Phoenicia to Hellenistic (and Hebrew), to Indian to Islamic to European cultures. Key numbers, cosmic cycles, and divine numbers permeate the number concepts of all these cultures. The Greeks and Hebrews had alphanumeric systems which developed into numerology and numberword mysticism.

Number mystics from the Pythagoreans onward considered number 'one' as the Infinite God, the First Cause, the One who transcends all multiplicity. To the Greeks, numbers were divine concepts, ideas in the mind the god who had fashioned the world. God was a great mathematician. In the Hebrew Qabala, the world is made with numbers and letters. In more accurate terms, the characters representing manifestation were alphanumeric.

Whether 'one' was actually a number at all was answered by the concept that it is the essence or underlying principle of number. All the numbers are made of it. In the West, ten (10) is the number of completion and perfection which returns the essential numbers back to unity. In China, **eleven is the number of Tao**, but not in the quantitative sense of ten plus one, but signifying the unity of the decade in its wholeness.

Jung echoes these ancient sentiments in *Memories, Dreams, and Reflections* (pp. 287 f.) by stating:

One, as the first numeral, is unity. But it is also "The unity," the One, All-oneness, individuality and non-duality--not a numeral but a philosophical concept, an archetype and attribute of God, the monad.

In *Number and Time*, M.L. von Franz carries this thought further:

The number one possesses these unique qualities to a particular degree...it does not multiply by itself, or reduce itself by division because it is a divisor of all other

numbers...It is the first triangular and also the first square number...it has no predecessor. In this sense it does not yet "count"; if it did it would be the first uneven prime number...in mathematics the number one is not reckoned among prime numbers.

This is supported by experimentation: "*dealing with the wave configurations of sand vibrations on thin plates of metal, all prime numbers figure with the exception of the one.*"

Influenced by Pythagorean ideas and Qabala, in which 10 Sephiroth (Spheres) emanate from God, the occult tradition asserts that the succession of numbers 1 through 10 symbolizes and is, in fact, identical with the emanation of the manifest Universe. The 22 letters of the alphanumeric Hebrew alphabet contained and created the secret structure of all things.

The *SEFIR YETZIRAH*, the Book of Creation or Formation (300-600 AD) describes how God created the manifest universe by means of letters and numbers which are the foundation of all things. The letters are part of 'one body,' the alphabet which is an extension of God's own being. All created things, made by means of the letters, are also parts of the one body which is God.

True being for the Hebrew is the 'word,' *dabhar*, which comprises all Hebraic realities: word, deed, and concrete object. Non-being, nothing (no thing) is signified correspondingly by 'not word,' *lo dabhar*.

In European magical tradition, the most important of all alphanumeric alphabets is the Hebrew which had 22 letters, all of which were consonants. Vowels were inferred from context. Contemplation (theory) and application (practice) is the mystical tradition of Qabala. In this alphabet there are no vowels (our a,e,i,o, and u) represented. The same is true of the older Phoenician (Canaanite) alphabet, from which our own alphabet is descended--by way of the Greek, Etruscan, and Latin alphabets.

All over the ancient orient, in Assyria and Babylonia, as well as Egypt, the word and particularly the word of God, was not only nor even primarily an expression of thought; it was a mighty and dynamic force. The Assyrians and Babylonians conceived of the divine word under the image of a physical-cosmic power.

In Egypt, the power of creating and sustaining everything was traced back to the divine word, the ever-active fluid or ethereal divine substance proceeding out of the mouth of divinity. For example, in Memphis, *Ptah* is the Creator of the world. The specific organ of creation is '*the mouth which named all things.*'

ALPHANUMERIC WRITING

All things nameable can be recorded or counted by symbols for things. Writing (like naming) is an ancient, magical art, assumed to have been invented by the gods. Emerging around 3200 B.C., writing contained mysterious, hidden, even divine Wisdom, for those contemporary minds. The archaic history of writing records its evolution from

pictographs and ideograms, to phonetic and syllabic cuneiform, and the alphabetic form, whose sequential letters are also used as numbers.

Certain milestones in the development of alphanumeric characters have been documented archaeologically. Interaction along trade routes in crossroads cultures contributed both to the development (from syllabic hieroglyphics and phonetic cuneiform), and dispersal of a letter sequence which could be adapted to the phonetics of local dialects.

A tablet has been found from the 14th Century B.C. showing Ugaritic letters arranged opposite a column of known Babylonian syllabic signs, which supplied the sounds for the characters a, be, ga---and so on---in basically the same order and roughly the same sounds that would appear 300 years later in the Phoenician alphabet. By 1000 B.C., the Phoenician alphabet had come to full flower.

According to Isaac Asimov (1989), this is why the alphabet was never invented independently by any other society:

"Between the Egyptians and the Babylonians were the Canaanites, inhabiting the eastern shore of the Mediterranean Sea, (the Greeks called them the Phoenicians). They were traders who acted among other things, as intermediaries between the Egyptians and Babylonians. It was necessary for such traders to know both the Egyptian and Babylonian languages, and that was a hard chore indeed."

"It occurred to some nameless Canaanite to simplify writing by adopting a kind of shorthand. Why not give a separate symbol to each of the common sounds made by human beings in speaking a language? You could then build up any words of any language by using those sound-symbols. Sound-symbols had, in fact, been used by the Egyptians, but they also preserved symbols for syllables and for whole words. The Canaanite inventor had the notion that the sound symbols should be used exclusively and that words should be built up out of them."

That same alphabet could be used as numerals.

(scan alphanumeric table)

TIMETABLE

The Ancient Development of Alphanumeric Characters:

2800-2600 BC Sumerian cuneiform; pictographs, ideograms

2500 BC Cuneiform spreads through Near East; adapted Sumerian signs to the phonetics of local languages (Akkadian 2300-2150)

2100-1300 BC Syllabic cuneiform (Semitic style 2500-2000)

1800-1600 BC Old Babylonia

1500-1400 BC Ugaritic cuneiform of 30 characters; first ABC letter sequence;

phonetics of a Canaanite dialect corresponding with Babylonian syllabic signs; precedes alphabetic cuneiform

1400-1300 BC ALPHABETIC CUNEIFORM from Babylon

1100- 900 BC Phoenicians spread precursor of modern alphabets; script of 22

characters, no vowels; rise of Assyria

800 BC Greeks and Hebrews adopt Phoenician alphabet;

Greeks add first vowels;

Babylon rebuilt; ALPHABETIC NUMERALS

500 BC Sanskrit alphabet and grammar codified

1000 AD Hindu-Arabic numerals and decimal system introduced into Europe by Pope Sylvester II

It is now generally agreed that all existing alphabets as well as those no longer used, derived from **one original alphabet (Paleo-Sinatic, Syria and Palestine 1750-1500 BC)**. There is obviously a real advantage in the use of single symbols for single sounds, compared with thousands of symbols for representing things or ideas (pictograms). The simplicity of alphabetic writing removed the monopoly on learning. The alphabet expanded literacy.

But all alphabets are inherently flawed, or at least limited. The shortcoming is that it lacks the delicate variations necessary to indicate all the subtleties of the human voice. So perfection has eluded any alphabet for that would mean the accurate rendering of every speech-sound.

In an ideal alphabet each sound would have to be represented by a single letter, and each letter would be limited to one sound. Every alphabet so far has omitted symbols for some sounds, and most have contained redundant letters. The adaption of a script to a language is not easy when it contains sounds not occurring in the speech from which it was borrowed.

In any event, the prototype of alphabetic writing was spread by the Phoenicians. Local scribes embellished it, or pared it down and evolved local variations. Historians and linguists cite four main branches of the Original:

1) North Semitic, included Canaanite, ancient Sinatic Hebrew, and Phoenician;

2) **Aramaic** includes Persian, Syriac, Mongolian, Armenian, Georgian alphabets, and the Indian main branch with 200 offshoots of Sanskrit; also the square Hebrew alphabet;

3) **South Semitic** is mainly Arabic;

4) **Greek main branch** includes all European alphabets: Etruscan, Cyrillic, Slavonic. Romans adopted only 21 letters from the early Etruscan alphabet, as well as their names for letters, which were different from the ones Greeks derived from Semitic letter names.

It made writing far easier to learn with its economy of symbols, and its direct relationship to the sounds of spoken languages and numbers. Literacy spread dramatically.

COSMIC CYCLES OF CREATION & DESTRUCTION THE HINDU DOCTRINE OF YUGAS

After the burning and plundering of the Hellenistic Library at Alexandria, Egypt, the exact science of ancient mathematics was lost to the west. The vanguard of mathematical discovery passed to medieval India.

Hindu mathematicians had little direct influence on Europe. But it is certain that the Arabs got their arithmetic and algebra from Brahmin knowledge. Caliphs entertained Indian mathematicians in the ninth and tenth centuries. Both Sansrit and Greek classics of science were avidly translated into Arabic during the Moslem Empire.

The Crusaders were exposed to this Arab knowledge in the Holy Land, and their knowledge gradually penetrated Europe also through Islamic Spain (Toledo). This led directly to a revival of European learning after the Middle Ages.

Therefore, we attribute our present system of so-called Arabic numerals to those near-eastern cultures which preserved them through Europe's Dark Ages. However, this decimal system of numeration originated in India and was one of the many kinds of knowledge translated into Arabic during the cultural flowering of that area. The numerical characters and such notions as the zero and place valuation came directly into modern society from India, even though they had been tentatively used in older societies.

Prior to the introduction of Hindu numerals, the alphanumeric characters developed by the Phoenicians predominated. Numbers were represented by the letters of an alphabet in their spoken succession. Both the Greeks (800 B.C.) and the Hebrews adopted this principle. Not only the alphabet, but the sounds of the letters were retained.

This adoption of an alphanumeric model led to the mathematical backwater of Gematria where every sum was a word or many words, and every word had a numerical equivalent. Number mysticism then concerned itself with various cryptographic messages and numerical codes. While good for mysticism and possibly promoting superstition, it was

no favor to the advancement of mathematics. The old Phoenician "acrophonic" numerals were abbreviations of number words. Alphanumerics permeated the crossroads cultures.

Cultural concepts of time, real and divine, differ dramatically and underlie and condition each culture's worldview. The background of Hindu cosmology and science has its roots in the crossroads cultures. It involves notions of time and history, astronomy, and the idea of the Divine Word.

Ethnopsychology, psychology of language, philosophy of language, logic of language, semantics and comparative linguistics show that, relatively speaking, **Hebrew thinking is dynamic and temporal, while Greek thinking is static and spatial--even the Greek conception of time is spatial--boundless.**

The concept of number can be understood either as spatially quantitative or dynamically qualitative quantities. For the temporally-oriented Jews, there is an inner connection between plurality and intensity. Hebrew thinking moves in time, while the Greeks employ space as their thought-form. Hebrews used a lunar calendar, while Greeks used the solar year.

Both Indo-European and Semitic languages reveal a cross-cultural ambiguity when using spatial expressions to designate temporal notions. "Before" and "behind" can mean "future" and "past." This double temporal meaning of the same words reveals two different notions of time, as eternal rhythms. In Semitic languages, the notion of recurrence coincides with that of duration. Time is the stream of events, the historical content of occurrence.

The European sense of time is a confused mixture of time and space, a legacy of Greek thought. The Indo-Germanic framework of past, present, future is foreign to Semitic thinking where tense comes principally from the dynamic of completed or incomplete action.

Our modern concept of time is spatialized. For us actions are oriented objectively, impersonally and spatially; the ancient Hebrews thought subjectively, personally, and temporally. Europeans got both space/time views mixed together as Bible cosmology.

These notions came down ambiguously because the Hebrews had no notions of firm boundaries to objects, while the Greeks delighted in thinking geometrically. They relate to quantity and number as spatially quantitative (Greek) and dynamically qualitative quantities (Hebrew).

The Hebrew language has no expressions for the simplest geometric figures such as the triangle, quadrilateral, or square, nor the corresponding adjectives. Numbers are distinguished qualitatively as rhythms, each with its own peculiarity.

The form and syntax of the Hebrew numbers two to ten indicate that the smallest and basic numbers were thought of as qualitatively different totalities. From there it was just a step further to the conception of holy numbers...concrete numerical gestalts, an intuitive quality adhering to a totally unarticulated general impression of quantity. Hebrew plural forms are preferably designated as intensive.

God revealed himself to Israel in History, not Ideas. Therefore, the Israelites developed no mathematical science, though it flourished in neighboring Phoenician and Mesopotamian cultures.

The mathematical ideas of the Greeks cannot be comprehended without bringing geometry into the inquiry. The Greek Ideas were geometrical basic forms, the eternal blueprint of reality.

Space perception is the given thought-form of the Greeks, and the visible form of things occupied their attention. Geometry for them was the most important branch of mathematics.

The Greeks, including Euclid, thought geometrically even when they dealt with numbers. The square was a visual representation of the second power and the cube of the third. For the Greeks, the concept of large, quantity (largeness) was mostly a spatial idea.

The Indian concept of time has differences and similarities with the Greek and Hebrew notions revealed by linguistics of their respective languages. Language (syntax, grammar, verb tenses, etc.) displays the basic worldview of a culture, notions about how real-time experiences are processed and conditioned by the basic philosophy of a culture. Linguistic peculiarities come from the underlying assumptions about existence in time and space, perception, being and becoming, active/passive, etc.

Like the Greeks, the Indian view of time is static, that is it is conceived statically rather than dynamically, as the Jews also do. The early Greek, Heraclitus posits that flux and becoming alone are real, permanence and constancy are merely apparent. The Hindus believe the exact opposite.

Indians recognize, of course, that the things of this world are always moving and changing. But the substance of things is seen as basically unchanging; its underlying reality is unaffected by the ceaseless flux. Indian thought places a high value on universality, and the connection between this, and the static conception of phenomena, is of course not accidental. *"The one remains, the many change and flee."*

The static conception of time permeates Indian thought. It could hardly fail to do so, for it is present in the very forms of language itself, conditioning all philosophical thinking. In classical Indian languages, there are no words corresponding to the concept *"to become."* *"To become" is "to exist."*

"Being born" and *"existing"* come from the same root. So to become is to be born. Indians express change at all as *"being otherwise."* Becoming is expressed in terms of being; dynamic is seen as a phase of static. This point of view permeates the language and conditions the philosophy.

The classic Western expression of the sense of flux uses a vivid and specific verb: "All things flow." The corresponding idea in India is expressed in Sanskrit as *sarvan anityam*, *"all existences are impermanent."* It always directs the attention away from the action to the stable state of the actor, from the changing aspect of the action to the unchanging

universal: "*to appear*" does not equal "*appearance*;" nothing can disappear or arise. The adverb isn't even a part of speech in Sanskrit.

In Indian philosophy, the Absolute is a Being beyond all temporal appearances. These exist and change in time; the Absolute is essentially static. The great unborn Self is imperishable, incorruptible, eternal, fearless Brahman, which is coequivalent with Atman.

Indian philosophers replaced the concept of Becoming with three aspects of temporal existence: Appearance, Extinction and Continuance, which are fundamentals in their cosmology. All three states are clearly conceived as static.

Here is a similarity to Platonic thought: Plato formulated the antithesis between Being and Becoming with the true essence of reality consisting of changeless, timeless Forms. This is why geometry was important, but Greek physical sciences only developed statics. Modern scientific thought, in contrast is concerned with kinetics, dynamics, synergetics.

Preoccupied with a more metaphysical time-sense, the numbness to the passage and flow of specific events makes non-Indians regard Indians as lacking in common sense. They simply do not seem to have a clear awareness of discrimination of "real time," historical time, and it shows in their language through the discrimination of tense. Children in India will ask you, "*What is time?*," not "*what time is it?*"

The difference between absolute past and relative past is not clearly made in the Indian language. Terms can be determined only through context. They don't grasp time quantitatively, and with historical accuracy. They exist through multiple lives repeated in limitless time: appearance, extinction, continuance, over and over through cosmic cycles of creation and destruction.

According to the Indian worldview, the universe, the world and social order are eternal. The personal is fleeting, and the basic assumption of transmigration is pervasive in language, thought, and philosophy. So, passing phenomena have no real significance, and no importance is given to providing them with accurate dates. In quasi-historical fashion they resort to hyperbole, idealization, and exaggerate to astronomical proportions. Therefore, much of Indian so-called history is confabulated, the product of pure imagination.

They are more interested in religion and poetry than historical documentation. Proper observance of ancient precepts is stronger than the regard for historical accuracy. They contemplate eternal paradigms of human experience which are by their nature timeless and in that sense, outside history.

This is a contemplative orientation and worldview, expressed in the forms of Sanskrit itself. In Sanskrit, it is "effect and cause" syntactically, rather than the Western "cause and effect." The Western order of thought is to proceed temporally from cause to effect; the relationship is seen in time.

In Sanskrit, progressive phenomena are seen as already complete. Rather than "the relation of the knower and the knowable," it is "the relation of the knowable and the knower."

This way of thinking is retrospective and different from the approach which starts from the cause. Things are evaluated in terms of a final cause or aim, a teleological relation. But Indians do have a concept of abstract time and changing phases of the world. They just adhere to the universal principle that whatever is subject to organization is subject also to destruction, in lesser or greater duration.

There is no substance which abides forever. All matter is force; all substance is motion; every individual is unstable; all things pass away. Modern physics, the bastion of science's "cause and effect" confirms this curiously enough through inductive and deductive reasoning which would be alien to Indian thought.

All this is the essential background on Indian language, thought, and philosophy which provides the fertile matrix from which their cosmology of cosmic cycles of creation and destruction arose. In fact, the philosophy conditioned the language and vice versa.

And the nutshell of this philosophy and language is contained in the divine rootsyllable, the sacred numberword AUM, the sound of the mystery of the Word everywhere, whose personal realization is a peak experience.

Joseph Campbell explains AUM in *THE POWER OF MYTH*(1988):

AUM is a word that represents to our ears that sound of the energy of the universe of which all things are manifestations. You start in the back of the mouth "ahh," and then "oo," you fill the mouth, and "mm," closes the mouth. When you pronounce this properly, all vowel sounds are included in the pronunciation. AUM. Consonants are here regarded as interruptions of the essential vowel sound. All words are thus fragments of AUM, just as all images are fragments of the Form of forms. AUM is a symbolic sound that puts you in touch with that resounding being that is the universe. To be in touch with that and to get the sense of that is the peak experience of all.

A-U-M. The birth, the coming into being, and the dissolution that cycles back. AUM is called the "four-element syllable." What is the fourth element? The silence out of which AUM arises, and back into which it goes, and which underlies it. My life is the AUM, but there is silence underlying it too. That is what we would call the Immortal.

As well as philosophy, Hindu cosmology also mixed space and time concepts derived from **astronomical and geodetic measurements**. They were influenced by the ancient Sumerian lunar reckoning which came with the Aryan invasion, and is, in fact, the legacy of all neolithic cultures. Later Hellenistic notions permeated their astronomy.

The figure the ancients used to define the circumference of the earth came from their foot and their cubit. These two numbers, 1296 and 864, are basic to many ancient systems of measure.

Is it a coincidence that a circle of 1,296,000 units has a radius of 206,265 units, the length of both an English and Egyptian cubit? The Hebrew shekel weighs 129.6 grams, and the English guinea 129.6 grains. The measure of the Holy of Holies in Solomon's Temple was 1296 inches.

129600 is the numeric basis for astronomical measures and played a role in Plato's mystic symbolism. Multiples and submultiples of 12960 are easily memorized: 1728, 864, 720, 432, **360**, 216, 180, 90, 40, **36**, 20, 16, 10, 8, 5, 4, 2. These sacred numbers were used everywhere in the building of sacred temples. The Babylonian Tablet (*Igi-Gal-Bi*) uses all of them, plus 144, 162, and 810.

In *IDEAL METROLOGY*, **W. H. Wood** points out the meaning of these figures in the East: "*In the law of the yoga, all periodic actions developed under the inspiration of The Invisible are measured by ideal cycles, expressed in geometric form by the number 1296 in thousands or thousands of thousands. The third stage of Yoga is represented by the third of 1296 or 432, which is considered the symbol of consecration, or standing in harmony with nature's beauty and order. The exalted life of a disciple of Buddha called for a cycle of 4320 million years.*"

In his classic, *THE BOOK*, **Alan Watts** points to the Hindu myth which says that as time goes on, life in the world gets worse and worse until at last the destructive aspect of the Self, the god Shiva dances a terrible dance which consumes everything in fire. There follows, says the myth 4,320,000 years of total peace during which the Self abides in itself and does not play or hide. Then the game begins again in a universe of perfect splendour which begins to deteriorate only after 1,728,000 years.

In *ANCIENT CULTURAL ANTHROPOLOGY*, **Dr. Charles Muses** wrote on the origin of certain Babylonian numbers. He noticed embedded in cosmic structure certain deeply fundamental numbers, which constitute an "alphabet" of sacred numbers. Among those still used today are 360 degrees of a circle; 60 minutes for an hour; 60 seconds for a minute and 24 hours for a day; 7 days a week; 12 months a year. Muses makes a list of 1, 3, 4, 5, 7, 12, 24, 60, and 360. He proceeds to show how all these numbers are related to patterns of circular arrangement.

Twofold twelveness, or 24 comes from uniting the 12 signs of the Zodiac with 12 hours of the day. Thus, from 360, 60 and 24 came a circle of time of $24 \times 60 \times 60$ or 86,400 seconds. And a circle for space of $360 \times 60 \times 60$ or 1,296,000 seconds.

Another research project of mathematician Dr. Muses is even more stunning in its results. He discovered that the roots an ancient Tantric lunar meditation practices were timed to certain anomalies in the moon's orbit. The *Satapatha Brahmana* and the *Taittiriya Sanhita* recount the procedures for a Tantric Lunar Resonance Meditation, associated with the Indo-European soma sacrifice. They are linked to the phases of the moon, but not the obvious points. The practice specifically divided the lunar month into 9 special days in both the waxing and waning halves, a cycle composed of 18 days total.

There is a striking correspondence between the two-fold cycle of lunar phases ($9 + 9 = 18$) each month and the *hypernumber w*, a lunar elliptic orbit function developed by NASA for the space program.

This hypernumber *w* and its phases of the elliptical orbits provide the only available mathematical paradigm corresponding to the anomalies distinct to the waxing and waning lunar fortnights. It is amazing that they could be known through some unknown form of calculation in pre-Vedic times.

It is not necessary to describe the source and functions of hypernumbers here. It is enough to know that the hypernumber *w* has the remarkable property that, when multiplied successively by itself, all the resulting numbers lie on a certain ellipse. The number resulting from multiplying the square root of *w* successively by itself also lie on the very same ellipse. Exactly 12 distinct points are generated by both these processes.

There are three principle irregularities in the lunar orbit known since Ptolemy of Alexandria, but this cannot be the Vedic source, since it came later. Together these irregularities furnish a set of eight places in the lunar orbit where these reflecting configurations of force are maximum. These eight places map on the eight points furnished by the integer powers of the hypernumber *w*. *W* was conceived by 20th century mathematicians to describe these irregularities of the lunar orbit.

In ancient Indo-Iranian tradition the holiest time of the month is the dark of the moon, where it is conjoined by the sun itself.

The sun travels through the celestial sphere of 360 degrees. Multiples of 360 reveal a cascade of ancient sacred numbers, which are instrumental in the arithmetical construction of Divine Ages of the Hindus.

1 x 360 = 360
2 x 360 = 720
3 x 360 = 1080 - OM
4 x 360 = 1440
5 x 360 = 1800 - half circle
6 x 360 = 2160; age of years
7 x 360 = 2520; Auric Key
8 x 360 = 2880
9 x 360 = 3240; x 2 sum of ages 6480
10 x 360 = 3600; Sumerian sar
11 x 360 = 3960
12 x 360 = 4320 Maha Yuga div by 4 = 1080
x 2 = 8640 (4320 + 6480) Yugas + Ages

Hindu cosmology mixed time-space concepts derived from solar and lunar calendars with holy number words. The Hindus had their own numberwords, called *mantras*. These words held mystical and numerical values. They were based on metrological

and cosmological constants as well as ancient mythology, and therein lay their sacredness or divinity.

Yogananda and other Hindu sources cite #108 as a divine number, "*the number of the Universe.*" It is said to be the number of AUM, or OM, the universal sound which underlies all creation. OM or AUM is the Word of the creator of universe, Brahman, who is associated with number 43200.

This notion is fundamental in two Hindu astro-calendric systems, the Ages and the Yugas, which delineate the number of divine years in different Epochs. Both the so-called Ages and Yugas are all multiples of #108 (see Tables which follow).

The Hindu religion is a vast ocean of religious thought, springing as it does from the earliest time, long before the dawn of history. It comprises in its multi-colored texture shade after shade, an endless variety of design and pattern as it grew in the human mind, from animism to Nature worship to number mysticism.

DIVINE AGES

FOUR YUGAS FOUR AGES

Kali 432 (108 x 4) Iron 648 (108 x 6)
Dvapara 864 x8) Copper 1296 x 12)
Treta 1296 x12) Silver 1944 x 18)
Krita 1728 x16) Gold 2592 x 24)

Maha Yuga 4320 x40) Sum 6480 x60)

36 x 3 = 108

36 x 36 = 1296

1296 x 2 = 2592 - 4 = 648

10800 x 4 = 43200

CREATION OF THE WORLD

According to Hindu cosmology, the world is created from an embryo, a "center," which also implies the construction of cosmic Time. This center concept is the root notion behind the **mandala, a term which itself means "a circle."**

Like our Synchronographs, the mandala represents a whole series of circles, concentric or otherwise, inscribed within a square. It is a symbol of the rite of penetration, which places the neophyte in a sort of labyrinth as an initiatory process. Mandalas clearly have a labyrinthine character, and so do mandalogs if viewed from that perspective. They help us to concentrate and find our own center in the microcosm.

This can lead directly to a more authentic and deeper personal experience and understanding, if traditional ritual has become fossilized; the need of a personal

experience is for reactivating certain primordial symbols in our consciousness. The purely mental constructions act as a support for meditation.

The Hindu notion of deep time is revealed when Indra hears from the mouth of Vishnu the true story of the eternal creation and destruction of worlds, the Great Time, mythic time in which we find the true source of all beings and of all cosmic events. This helps us pierce the veil of illusion created by profane time and our own history, and like Indra cures us of our pride and ignorance. It is a redemptive function.

To transcend profane time and re-enter into mythical Great Time is equivalent to a revelation of ultimate reality--the reality which is strictly metaphysical, and can be approached in no other way than through myths and symbols.

The conception of cyclic and infinite Time, Presented by Vishnu is the general Indian conception of cosmic cycles. Though this belief is found in all archaic societies, it is first espoused in the **Atharva Veda**.

India elaborated the doctrine of cosmic cycles by amplifying the number of periodic creations and destructions of the Universe to ever more terrifying proportions. The transition of each age marks the beginning of a regression. The decreasing length of each *yuga* marks this durational degeneration toward the present *Kali Yuga*. It is so called for the "black" goddess *Kali* or (**Shakti**, the Great Goddess), whose name is akin to the Sanskrit *kala*, or "time." She is the personification of time.

Number 108 is also said to be the number of names of the great Mother Goddess.

The 12,000 years of one *mahayuga* has been counted as "divine years" of 360 each, which gives a total of 4,320,000 years for a single cosmic cycle. This is all we need to retain with the cyclic character of cosmic time. The life of Brahma comprises 2,560,000 of these *mahayugas*, each going through the same stages concluding with a *pralaya*, and

grand dissolution.

THE HINDU CONCEPT OF NUMBER Indian Philosophy, Cosmology, and Science

"The Hindu traditions were brought to the Indian subcontinent by 'Aryan' migrants from the shores of the Caspian Sea, cousins of the Indo-Europeans who were the Hittites of Asia Minor (today's Turkey) and of the Hurrians of the upper Euphrates River, through whom Sumerian knowledge and beliefs were transmitted to the Indo-Europeans. The Aryan migrations are believed to have taken place in the 2nd millenium BC and the Vedas were held to be 'not of human origin,' having been composed by the gods themselves in a previous age. In time the various components of the Vedas and the auxilliary literature that derived from them (the Mantras, Brahmanas, etc.) were augmented by the non-Vedic Puranas, and the great epic tales of the Mahabharata and Ramayana. In

them, ages deriving from multiples of 3600 also predominate, [and the Divine Cycle of 432,000]."

Zecharia Sitchin, *When Time Began*

In the Bronze Age, the Indus Valley of Pakistan and Northwestern India was one of the cradles of civilization. Their lost language was proto-Dravidian. The *Vedas* were written in the Indo-European predecessor of the Indian root-tongue Sanskrit.

The two main cities were Mohenjo-Daro in Sind, and Harappa in the Punjab. Its original civilization, the Harappan, emerged about 2500 B.C. This was a sophisticated urban society with pictographic systems of writing and measurement (**metrology**). A thousand years later, Aryans brought cultural influences from the north with rituals that formed the foundation of Hinduism. These traditions apparently included number mysticism, but one of astronomical numbers, not integers..

Beginning with the *Brahmanas*, and even the *Puranas*, the Indians developed the doctrine of the four Yugas, the four Ages of the World. The essence of this theory is the cyclical creation and destruction of the World and the belief in "the perfection of the beginnings." As the Buddhists and Jains hold the same views, this doctrine of the eternal creation and destruction of the Universe is a pan-Indian idea.

In Indian cosmogony, the complete cycle is terminated by a dissolution (*pralaya*), with a great dissolution (*mahapralaya*) at the end of the thousandth cycle.

The names of the four **Yugas** first appear in the *Aitareya Brahmana*, **VII, 14**. In India, time is not a measure of quantity, but a means of expressing universal relationships. This doctrine of ages is a variation on the Myth of the Eternal Return, a primal conception of periodic renewal of the World.

In Hinduism, man plays no part in this re-creation, but desires to escape from the cosmic cycle. There is no final End of the World, just intervening annihilations of one Universe and the appearance of others.

In every age there is a turning-point, a new way of seeing and asserting the coherence of the world. Each culture tries to fix its visionary moment, when it was transformed by a new conception either of nature or man.

When seeking the roots of ancient sciences, it is important to remember that a language system may persist in the religious or sacred arena long after it is superceded by a more popular dialect. This has been the fate of Sumerian (which ceased to be spoken around 2000 BC), but was the language of sacred liturgy and divine knowledge for fifteen more centuries.

Other liturgical languages with a similar destiny include Sanskrit, Hebrew, and Latin, (as well as Old Slavic). The Akkadians preserved old Sumerian religious structure of a supreme Triad, and this reflected into India as Brahma/Vishnu/Shiva and the west as the Trinity.

The Akkadians promoted the Sun god over the Supreme Triad, and the Triad gradually lost cult supremacy to the sun as unrivaled universal divinity whose primary quality is the emanation of numinous light.

Another creation of Akkadian religious thought is divination. They multiplied magical practices and developed occult disciplines including astrology, which later became popular throughout the Asiatic and Mediterranean world. They added the personal experience to religious life and exalted certain divinities to supreme rank.

Astrology, a late development, was originally practiced primarily by the royal entourage. Over time, the ideas, beliefs and other techniques of Mesopotamian origin circulated from the western Mediterranean to the Hindu Kush. The Mesopotamian discoveries always emphasized a direct correspondence between heaven and earth, or macrocosm and microcosm. Contact with Sumerian culture mutated other civilizations, including the Egyptian.

The first cities of India, the indigenous Harappan civilization, were overrun by the Aryan warlords, who deplored writing and had no cities of their own. Their characteristic feature, before they settled down, was oral tradition, since after their encounter with the Near Eastern civilizations, they prohibited using writing.

This mixing of cultures led to a religious syncretism or mixing of the mental concepts of both groups, which very shortly spread Hinduism through the subcontinent. The Harappan religion provided the prototype of the Mother Goddess and her consort, the phallic *Shiva (Shiva/Shakti)*. They echo Mesopotamian mythology.

Around 1750 BC, the Indus civilization was on its deathbed, and the Indo-Aryans gave it a mortal blow. But this happened progressively, over centuries of intermingling. Aryanization of the Punjab launched the movement of the synthesis that became Hinduism.

In the west, the Hellenic culture and religion was the result of the symbiosis between the Mediterranean substratum and the Indo-European conquerors from the north. Then Hellenism sent its roots into Egypt and Asia on the tide of Mycenaean conquerors.

Despite symbiosis with countless pre-Hellenic traditions, the Aryan-speaking conquerors succeeded in imposing their pantheon and in maintaining their specific religious style. The original home of the Indo-Europeans is the region north of the Black Sea between the Carpathians and the Caucasus.

The Indo-Europeans had elaborated a specific mythology and theology (pantheon headed by a storm god and Mother Goddess). They practiced sacrifices and knew the magico-religious value of the Word and of chanting.

They possessed concepts of rituals that enabled them to consecrate space to "cosmicize" the territories in which they settled, and enabled them to "periodically renew the world." 10800 bricks in the fire altar = recreating universe in a ritual imitation of creation.

The Indo-European tribes called themselves Aryan, "noble man." They progressively assimilated the survivors of the Dravidian Indus civilization, as shown by language. Vedic Sanskrit has a series of phonemes, especially the cerebral consonants, which are found in no other Indo-European idiom, not even in Iranian. Very probably these consonants reflect the pronunciation of the aborigines trying to learn the language of their masters. Similarly, the Vedic vocabulary preserves a large number of non-Aryan words.

The time of the *Asuras* preceded the present epoch, ruled by the *Devas*. In India as in a number of archaic and traditional religions, the passage from a primordial epoch to the present epoch is expressed in cosmogonic terms: passage from a state of chaos to an organized world, a cosmos.

The *agnicayana* ritual was an imitation of the creation which sacralized a locality, making it the local center of the universe. The altar was built with 10,800 bricks piled up in five courses, sometimes taking the form of a bird, symbolizing the sacrificer's mystical ascent to heaven.

Originally, it involved human sacrifice, repeating the self-sacrifice of Prajapati. The building of the altar symbolized the creation of the universe, which consecrates any land. The cosmologies, like so many other religious ideas and beliefs, represent a heritage transmitted from prehistory everywhere in the ancient world. The Indians revalorized and reinterpreted many cosmogonic myths.

In the most famous hymn of the *Rig Veda*, the cosmogony is presented as a metaphysics, revealing how Being came out of Non-being. There was an undifferentiated principle called "One" (neuter): "*The One breathed from its own impulse, without there being any breath.*" Aside from that "nothing else existed."

Heat gave birth to the "One" potential and this potential developed desire which became Consciousness. The first seed then divided itself into genders, and the gods were born afterwards. **The "One" transcended both Gods and Creation. The One precedes the universe and creates the world by emanation from his own being. Both consciousness and the universe are the product of procreative desire.**

The *Rig Veda's* notion of the "One" is continued in the identity of *Purusha/Prajapati*. In the beginning Prajapati was the nonmanifested Unity-Totality.

The triple identification of Prajapati with the universe, with cyclic time (the year) and with the fire altar constitutes the great novelty of the Brahmanic theory of sacrifice.

They contain the thought that the world and life exhaust themselves by their very duration. *Satapatha Brahmana* states that, "*This Prajapati, the Year, is made up of 720 days and nights; that is why the altar comprises 360 enclosing stones and 360 bricks.*" In short, every sacrifice repeats the primordial act of creation and guarantees the continuity of the world for the following year.

In the *Brahmanas*, sacrifice recreates the cosmos that has been exhausted by cyclic time (the year). This later becomes the conceptual basis of creating the *atman*, or indestructible spiritual being.

The self (*atman*) is equated with Brahman. The Brahman knows the structure and origin of the universe, because he knows the Word that expresses all that; for *Vac*, the Logos, can transform any person into a Brahman.

The identity atman-Brahman leads to the experience of "inner light." This spiritual exercise reflects the Vedic tradition that the sun and light are regarded as epiphanies of Being, of Spirit, of immortality and procreation. According to the *Rig Veda* 1.115.1, the sun is the life or atman--the Self--of all things. The atman is a form of "light in the heart." That Immortal, fearless being is atman. That is Brahman.

The identity brahman-atman constitutes the most important discovery of the *Upanishads*.

The *MAHABHARATA*, with 90,000 verses is the longest epic in world history. It recounts the conflict between two lines of Bharatas. By the fifth book of the series, they are preparing for battle, which is recounted in the sixth book--the Bhagavad Gita.

This monstrous war was decided upon by Brahma, to relieve the earth of a population that did not cease to multiply. Therefore, Brahma convinced a certain number of gods and demons to become incarnate in order to provoke a terrifying war of extermination.

Thus, the *MAHABHARATA* describes the end of a world (*pralaya*), followed by the emergence of a new world. The poem has an eschatological structure revealing a gigantic battle between good and evil. There is destruction on a cosmic scale followed by the resurgence of a new and pure world. It is the conclusion of a cosmic age.

The cyclical theory was popular from the earliest times of the *Puranas*. The eschatological myth is older than Hinduism; it is archaic and widely disseminated among crossroad cultures. The myth of the end of the world was known by the Indo-Europeans. Even though the eschatological myth is not documented in the Vedic period, this doesn't prove that it did not exist. The *Mahabharata* contains Vedic and pre-Vedic notions. It is an epic transposition of an eschatological crisis, which Hindu mythology called the end of a yuga. It is a grandiose synthesis, much richer than the Indo-European prototype. In this cycle of the eternal return, Krishna reveals himself to Arjuna as an incarnation of Vishnu.

Vishnu is the author of catastrophic destructions and resurrections. This is as much to say that Vishnu, as a supreme being, is the ultimate reality. He governs both the creation and destruction of worlds. He is beyond good and evil, like all the gods.

But the poem also glorifies the complementarity of *Shiva* and *Vishnu*, the Aryan/Harappan synthesis. These gods, together with the Great Goddess (*Shakti*, *Kali*, *Durga*) have dominated Hinduism from the first centuries of our era to the present. Understanding the creative/destructive aspect of divinity is equivalent to a revelation and also constitutes a model to follow in obtaining deliverance.

Deliverance involves comprehension of the relations between the two modes of the real: immediate--that is, historically conditioned--reality and ultimate reality.

Curiously, this paradoxical work about a frightening war of extermination and the end of a *yuga* is the exemplary model for every spiritual synthesis achieved in Hinduism, especially the tendency to reconcile contraries. It justifies a certain mode of existing in time; it valorizes the historicity of the human condition. Arjuna's existential crisis ends with his exemplary revelation concerning the human condition and the "ways" of deliverance.

Like the Greeks and the Jews, the Hindus faced the dilemma of time's meaning:

In the *History of Religious Ideas*, Eliade puts it succinctly:

"How is it possible to resolve the paradoxical situation created by the twofold fact that man, on the one hand, finds himself existing in time, condemned to history, and, on the other hand, know that he will be 'damned' if he allows himself to be exhausted by temporality and by his own historicity, and that consequently, he must at all costs find in the world a way that leads to a transhistorical and atemporal plane."

Since the whole universe is the creation, (or even the epiphany of *Krishna-Vishnu*), to live in the world, to participate in its structures, does not constitute an evil act. The "evil act" is to believe that the world and time and history possess an independent reality of their own, that is, to believe that nothing else exists outside of the world and temporality. The idea is certainly pan-Indian, but it is in the *Bhagavad Gita* that it received its most consistent expression.

It is still Vishnu who periodically destroys the universe, at the end of each cosmic cycle. All is created and governed by God. Cosmic life, individual existence and history receive a religious meaning. The periodic destruction of the universe is a theophany...the resacralization of life and human existence.

In Hinduism, man plays no part in this re-creation, but desires to escape from the cosmic cycle. There is no final End of the World, just intervening annihilations of one Universe and the appearance of others.

In every age there is a turning-point, a new way of seeing and asserting the coherence of the world. Each culture tries to fix its visionary moment, when it was transformed by a new conception either of nature or man.

Hindi Baseten Numerals

The history of our base ten system emerges from this Hindu cosmogony and astronomy. Hindi-Arabic numerals penetrated into Europe beginning in the 12th Century. A unique property of Hindu numerals is that (unlike Hebrew, Greek, Roman, Mayan, Chinese, or other characters) the numerals are REVERSABLE and hold place value.

Without resorting to graphic depiction to reveal inherent symmetry and rhythms, they allow for the symbolic representation of palindromes and transpalindromes, the emergence of classes of numbers.

This is a singular property of this base ten system of notation, even though the Hindus were influenced by Hellenistic culture as well. Greece and the Near East still employed alphabetic numerals, with no place values. With the advent of positional numeration and its universal acceptance, the decimal cryptogram of a number automatically provided it with a name.

According to the Hindu view, all the aspects of the manifest world spring from similar principles. There is a correspondence or equivalence between sounds, forms, numbers, colors, ideals, as there is also between the abstractions of subtle and metaphysical worlds on one side and the forms of the perceptible universe on the other. Astronomical phenomena form the basic symbols of universal principles.

According to the Nondual Principle, the Supreme Cause must be beyond Number, otherwise Number would be the First Cause. But one is considered a number just like two, or three, or ten, or a million. If "God" is one, he is not beyond number any more than if he is two, three, or a million. But, although a million is not any nearer to infinity than any number, it seems to be so. The number one is in a way the number farthest removed from infinity, so divinity is best represented by an immense number of different gods.

In the *Puranas*, it says, "*The nature of illusion (maya) is [represented by] the number one.*"

To speak of the manifest force of a unique God implies a confusion between different orders. God manifest cannot be one, nor can the number one apply to an unmanifest causal aspect. At no stage can unity be taken as the cause of anything, since the existence implies a relation and unity would mean existence without relation.

Divinity as ultimate essence, is neither one, nor two (dual), nor many. The nondual principle transcends all forms of manifest divinity. This nondual Immensity is the Brahman, on a plane different from that of existence. Existence is multiplicity.

The identity of the macrocosm and microcosm can be observed in the permanence of the relations found as the substratum of all the aspects of the perceptible universe. These relations can best be expressed in terms of number. Hence NUMBER is easily seen as the common element of all forms, the all-pervading unity of all substance. Modern physics reflects and confirms this philosophy.

The creative or revealed Word of Brahm in the Vedas is *AUM*, or *OM*. It is the first manifestation of articulate language, the root monosyllable, which includes all language and meaning. It is the seed syllable of all human speech, a nutshell containing the whole of wisdom. The four Vedas are merely comments on and amplifications of this infinitely meaningful syllable. It is more than past, present, and future; it is an indestructible Immensity

***AUM* is said to issue through a process of MULTIFOLD REFLECTION.**

Taken as a symbol of divinity, *AUM* appears as the form from which the universe develops; the first thought-form of Brahman, the Creator. From this basic syllable spring forth all the elemental sounds, the roots of manifestation, keys of all language.

The number 4,320,000 (108 x 40) has a very ancient symbolic or "divine" meaning. It came to India with the Aryan migration and became codified in the *Rigveda*, *Book of Sacred Verses*. Among other things, it is the number of syllables in the *Rigveda*, which has 40 syllables per stanza, (10800 stanzas x 40 syllables = 432,000).

Hindu tradition associated the "divine" number 432,000 with the Brahman and the *Yugas* and Ages. This number of the *catayuga* divided by four yields ages of diminishing length.

Golden Age = 4 x 4,320,000 = 1,728,000

Age of Knowledge = 3x =1,296,000

Age of Sacrifice = 2x =864,000

Age of Discord = 1x =432,000

Ten eons = 1000 cycles of caturyuga = 4,320,000,0000 years; "Day of Lord Brahman," This is a close estimate to the age of the Solar System, 4.5 billion years..

These are divine, not human years...the corresponding duration for the *Kali Yuga* is 36,000 mortal years. 32 x 12.

Indian Science and Cosmology

The Golden Age of Indian science came to medieval India during the Gupta Empire (320-647 AD) when culture and the arts flourished. The most famous scientist of the period was the **astronomer and mathematician Aryabhata**. He discussed, in verse, quadratic equations, sines, the value of pi, eclipses, solstices, and equinoxes, and the spherical shape of the earth, and its daily revolution on its axis. His successor, **Brahmagupta**, systematized the astronomic knowledge of India.

Other Indian astronomers made up a calendar of 12 month, each of 30 days, each day of 30 hours, inserting an intercalary month every five years. The Buddhists still use a lunar calendar. They also predicted eclipses accurately, calculated the moon's diameter, and expounded the theory of gravity.

Indian astronomy and mathematics were unequalled (except in geometry) by those of any ancient western people. Our Arabic numerals and decimal system which come from them are far more fluid and versatile than any before them. The numerals can be found on the rock edicts of Asoka (256 BC), while the scientists used the decimals system long before the Arabs, Syrians, and Chinese had a chance to borrow them. The mathematicians also created the concept of a negative quantity (without which algebra could not exist), and found the square root of 2, and solved complicated equations.

The discovery sometime in the first centuries of our era of the Principle of Position became a world-wide event. It was a radical departure in method, which in Syndex

Theory makes reciprocity possible. Without this principle of position no progress in arithmetic was possible.

Place position probably was inspired by the use of counting boards. **ZERO** was probably conceived this way also from an empty column, and became the Indian **SUNYA**. It represents a turning point for modern science, industry, and commerce. It paved the way to a generalized number concept, and plays a fundamental role in nearly every branch of mathematics. It is one of the single greatest achievements of human thought.

There is an ancient code of numbers and proportion based on metrological standards of measure. Such constants as astronomical Precession, and geodetic measures such as polar diameter provided the basic context. Fractions of the earth's principle dimensions mirrored numerical patterns in the appearance and movement of nature.

These numbers are the vestiges of the Sumerian sexagesimal system and calendar. Earlier measures of astronomy, astrology, and cosmology were usually in units of 12, as were various ancient units of measurement of time.

Mankind counted days and the changing of the moon and seasons for millennia before recorded history. As early as 3760 BC, the Sumerians created a lunar calendar. By 2800 B.C., they had worked out a cycle of 19 years which kept it synchronized with the solar year and seasons. Certain years had 12 lunar months, while others had thirteen. This lunar calendar was adapted by the Akkadians, Babylonians, Assyrians, Greeks and Jews. The Nippur calendar is still the basis of Jewish religious ceremonies.

Sumerian astronomy included the concept of "deep time," as recounted in the *Enuma Elish, the Epic of Creation*. Ancient texts known as the Sumerian King Lists describe the settling of the divine Anunnaki on Earth before the deluge. They list the governorships of the first 10 leaders which lasted a total of 120 sars, or 432,000 Earth-years.

This is a direct source for divine eras in Hindu lore, but they expand the vastness to an overall time span of 4,320,000, and then to a Divine Year or Day of Lord Brahma--4,320,000,000--a thousandfold great yugas. The Sumerian formula is echoed in the Hindu traditions.

From Sumeria comes the ubiquitous concept of a sky divided into 360 degrees of Latitude, 60 minutes of 3600 seconds; 12 month years beginning on Spring Equinox; 12 hours of day and night ($2 \times 12 = 24$); 12 signs of the Zodiac, etc.

Sumerian fractions were geared to the principle of repeated halving. Whole unit or natural fractions are important in arranging metrological units. The system based on 60 is evenly divisible by 2,3,4,5,6,10,15, and 30 eliminating the frequent need of fractions. This naturally leads to grouping higher units in 12, 30, or 60. All these ratios occur in one or another of the parallel systems of units in Mesopotamian metrology. 4320 is one such number; so is 108000.

The Greek astronomers adopted this system, and so did their followers in India, the Islamic Empire, and Europe. Much of the mathematical knowledge commonly ascribed to the early Greek philosophers was already known to the Egyptians and Mesopotamians centuries before the rise of Greek civilization. However, the Greeks preserved and spread this knowledge. They were the first to consider mathematical concepts as abstractions not part of the real world, but of the idealized "sacred space" of the human mind.

There is some evidence of ancient India having direct contact with Sumeria around 2500 B.C. This is difficult to document, but not to deduce. However, nevertheless, Hindus contributed the final step to mathematical astronomy, namely, the use of the place value notation for the smaller decimal units. This is where we get our divisions of 60, 24, 12, and 2.

AS WE HAVE SHOWN ELSEWHERE, THESE ARE CLOSELY ALLIED TO THE HOLOTOMIC SEQUENCE: 12 - 24 - 72 - 360 - 2520, ETC.

These numbers are the vestiges of the Sumerian sexagesimal system and calendar.

ROOTS OF THE NUMBER CONCEPT IN INDIA

2500-1500 BC Contact with ancient Sumerians. Indus civilization; proto-Dravidian language; pictographic script; no firm evidence of separate numerals. Pre-Vedic *PURANAS*, "Ancient Writings."

1500-1001 BC *UPANISHADS*: Vedic period begins; *RIGVEDA*, Sacred Book of Verses.

1000-801 BC Pantheistic religion develops; Brahmanism; astronomy; lunar year adjusted to correspond with solar year; In Greece, alphabetic number system.

700-600 BC Indian *VEDAS* completed; doctrine of transmigration.

585 BC In Greece, Thales uses Babylonian methods to predict eclipse of sun.

500 BC Era of Buddha; **Sanskrit alphabet** and grammar codified.

500-451 BC *RAMAYANA* text.

326 BC Alexander invades India; Greco-Indian kingdoms established; Greek influence on art and science. Hellenistic culture flourishes. Barrier between East and West broken.

300 BC *MAHABHARATA* text.

250 BC In Greece Erathosthenes sieve reveals distribution of primes among first 100 integers.

Early centuries AD **Invention of the Zero (Sunya)** & negative numbers in India.

150 AD In Greece, Ptolemy's *ALMAGEST*, a unified method for representing celestial phenomena, circular cycles and epicycles.

300-400 AD Christians vandalize Library at Alexandria, Egypt.

375-413 AD Astronomical and mathematical advances of medieval India;
Aryabhata,
Brahmagupta.

400 AD *SURYA SIDDHANTA*, classical astronomical text; spherical geometry; epicycles; formula for length of day; solar velocity; earliest place value; #108 = numberword AUM (OM) = Universe.

500 AD Aryabhata argues for a moveable and rotating earth.

505 AD *PANCA SIDDHANTA*, by Viraha Mihira, summary of five classical astronomical treatises; sine tables.

595 AD Powers and roots of numbers; first recorded decimal reckoning.

600-700 AD Moslem Empire; Moslems burn Alexandria Library, ancient exact science lost to west.

760 AD Hindu numerals known in Bagdad; Arabs bring decimal system from India.

810 AD Al-Khwarizmi uses zero and positional notation to create algebra.

814 AD Arabs adopt Indian numerals, including zero to multiply by 10.

850 AD Mahavir, Indian mathematician; Pythagorean triplet construction known in India.

975 AD Present arithmetical notation taken into Europe by Arabs, Jews, and Crusaders; penetrates by 12th century.

1000 AD Sridhara recognizes the importance of zero; present version of *SURYA SIDDHANTA*.

1030 AD al-Biruni's report on Hindu astronomy and astrology derived from Viraha Mihira.

1100 AD Europe begins adopting Hindu-Arabic numeral system from Jewish scholars who learned it in Babylon, Jerusalem and Islamic Spain. First brought to Europe by Moors; introduced by Gerbert of Aurillac (Pope Sylvester II), about 1000 AD.

1202 AD *Liber Abaci* (*Book of the Abacus*) written by Italian mathematician **Leonardo Fibonacci**, who derived it from Al-Khwarizmi during his North African travels. Introduced Arabic-Hindu numerals to Europe in Latin translation.

THE *SURYA SIDDHANTA* **THE CLASSIC OF INDIAN ASTRONOMY**

"The time by which the worlds come to an end is different from the time which measures life. Time is thus of two kinds, gross and subtle, manifest and unmanifest."

Surya Siddhanta 1.10 [371]

The worship of the sun was common in antiquity and India was no exception. There is a famous sun temple in Konark in South India, and in the historic town of Mooltan or the land of the Sun, in the North. **The sacred wordnumber 108 had to do with the numbers of revolutions of the sun in the various epochs, which are all multiples of #108.**

The Holotomic Sequence was discovered through a systematic graphic analysis of the enspiralment of number 108 (or 3 x 36).

Not only sacred to the Hindus, this number also appears in Tibetan Buddhism, where it is considered highly auspicious, being the number of beads on each strand of the malla, or Tibetan rosary beads. Therefore, it reveals its character as an ancient symbolic form of circular unity.

The Hindu calendar claims an amazing antiquity. Its alleged starting point is the divine beginning of Brahman, the first god of the Holy Triad Brahman/Vishnu/Shiva. Its unit is the *Kalpa*, equivalent to one day of Brahma's life (4,320,000,000 years--a close estimate to the age of the Solar System). Brahma's allotted life span is 100 years of 365 Kalpas each. The present epoch is the *Kali Yuga* and this Hindu year exceeds the figure 155,521,972,849,000 and counting.

In both solar and lunar calculations, the ancient Hindus fixed certain points of time back as epochs. They each begin when the planets are assumed to fall into a line of mean conjunction with the Sun in the beginning of Aries. In the classic astronomical text, the *Surya Siddhanta* (400 A.D.), the zodiacal signs are used to denote arcs on any great circle.

In the *Surya Siddhanta*, the least cycle of years in which the Sun, Moon, and planets are supposed to return to a line of mean conjunction at the beginning of Aries is 1080,000 years, a fourth of a *Maha Yuga* of 4,320,000,000 years or revolutions of the Sun (*Surya*). The revolutions given in the *Surya Siddhanta* must always be divisible by four, or no mean conjunction could take place at the beginning of the *Kali Yuga*.

There are two primary astrocalendric systems in India, solar and lunar: *Yugas* and Ages denoted by metals:

According to Neugebauer (1952), the sixth chapter of the *Surya Siddhanta* deals with a graphical representation of the different phases of an eclipse; the thirteenth chapter deals with the construction of a celestial globe. These mysteries were reserved for initiates: "***This mystery of the gods is not to be imparted indiscriminately: it is to be made known to the welltried pupil, who remains a year under instruction.***"

Spherical astronomy methods are characterized by the use of the interior of a sphere for determining the length of circular arcs on the sphere. This method was used in the *Surya Siddhanta* to determine the length of daylight from the shadow of a sundial of known height.

Another astronomical text, the *Panca Siddhanta* (505 A.D.), written by Varaha Mihiri is a summary of five great classical astronomical treatises. It reveals a close relationship in methods of calculation to the Babylonian linear (arithmetic) method. This method of determining the position of the sun works with zigzag functions or step functions which approximate greatest and smallest solar velocity. There is no direct evidence for a direct link from Babylon to India, but it cannot be ruled out. However, the Hellenistic influences in the texts are obvious to scholars.

Despite its origin, the apparently Babylonian knowledge was passed back to Asia Minor in an improved form by al-Biruni, who reported on Hindu astronomy and astrology in 1030 A.D. The *Panca Siddhanta* also contained rules for computing lunar motion based on processes now known to us from Greek sources.

But the *Surya Siddhanta* arguably remained the main canon of Hindu astronomy. It was allegedly revealed by the Sun (Surya) at the end of the Golden Age (2163102 B.C.) to a Maya Asura. Its contents, however, reflect the Hellenistic influence.

While the original may be dated to 400 A.D., the consistently-modified present version may have been written as late as 1000 A.D., long after the conquests of Alexander the Great (356-323 B.C.), and his death in Babylon. From that point forward, Hellenistic and Mesopotamian sources are definitely mixed.

The terminology and methods of Hindu astrology are certainly of Greek origin. For example, the names of the zodiacal signs are Greek loan-words. Similarly, the basic concepts of the planetary theory of the *Surya Siddhanta* are influenced by the Greek epicyclic models and not by Babylonian linear methods.

In the chronology of Hindu astronomy, linear methods as well as trigonometric models point to the early centuries AD, not BC. Babylonian methods and concepts reached India either via Persia or Roman/Greek sea routes to Pondicherry where these methods first surfaced in the subcontinent. They appear only in the form of Hellenistic astronomy and astrology.

The *Surya Siddhanta* combines older, very primitive sections with the Greek theory of epicyclic motion. But even though this Greek influence is apparent, it has obviously undergone a quite independent transformation in many details of the general theory.

Modifications of certain types, such as the values of numerical constants, went on almost continuously. They moved closer into accord with the Hellenistic sources. The time of the *Surya Siddhanta's* origin and this cultural contact is the same--about 400 AD.

The source book of the *Panca Siddhanta* is the *Paulisa Siddhanta* which contained the earliest documented sources on place value notation. Hindu astronomy reflects here the oldest strata of Greek astronomy, without Ptolemaic theory's refinements, (150 BC-150AD).

Latin translations of the astronomical tables of Al-Khwarizmi are a curious mixture of the Hindu and Greek methods. He translated *SLOKAS*, or Hindu sacred verses, for the west. Another Arab scholar, Al-Biruni translated an astrological work of Varaha Mihiri's into Arabic.

According to Neugebauer:

"There are many evident indications of a direct contact of Hindu astronomy with Hellenistic tradition, e.g. the use of epicycles or the use of tables of chords which were transformed by the Hindus into tables of sines. The same mixture of ecliptic arcs and declination circles is found with Hipparchus and in the early Siddhantas, [where they referred to polar longitude and polar latitude]." The extensive use of the sexagesimal system is common in both Greek and Mesopotamian astronomy.

"Indian asterisms appear in Abu Ma'shar, and their source is found in the astrological writings of varaha Mihira, the same author of the sixth century AD in whose astronomical work we found the use of the linear methods for the lunar motion, otherwise known to us from Greek papyri and finally from cuneiform tablets. Following the unmistakable traces of very specific astrological doctrines, one can reconstruct the road which connected Hellenistic Mesopotamia with Hellenistic Egypt, with pre-Islamic Persia, and with India."

The lunar theory presented in the *Panca Siddhanta* is essentially the same step functions described in Babylonian texts. In the *Surya Siddhanta*, the zodiacal signs are used to denote arcs on any great circle, as did the Greek Hipparchus. In the *Surya Siddhanta*, lunar months are described of fixed length, but later in Hindu astronomy they are of variable length as in the adjusted lunar calendar. Decimal place value notation probably was a modification of the sexagesimal place value notation with which the Hindus became familiar through Hellenistic astronomy.

So, it appears that even in the ancient world, "there is not much new under the sun." Concepts travelled along cultural exchange routes, and were widely shared and modified, then recycled back to where they came from...in the so-called beginning.

However, for the case of the Hindu calendar systems, this is hardly as far back as their huge cosmological epochs would have us believe. Even though the *Maha Yuga* is a good

pre-scientific guess for the age of the Solar System, (4.5 billion years), there is another, symbolic meaning to these great sums. The key numbers' importance comes from basic metrological constants. $25,920 = 2160 \times 12$ is the formula of the "Great Year" or Precessional Cycle. 500 such cycles $500 \times 25920 = 12,960,000$.

The Aryan, or pre-Vedic *Puranas* derived ages from multiples of 3,600: $3600 \times 3600 = 12,960,000$. The globe is divided into 360 degrees of latitude, each degree containing 60 minutes of 3,600 seconds. $3600 = 60^2 \cdot 3168 - 1008 = 3.1428571$. #1080 is a cross-cultural lunar number, and close to the radius of the moon in miles.

Heraclitus spoke of 10800 years between successive destructions of civilizations. Its Aryan roots show in the Germanic 1080 pillars of Valhalla. In oriental astronomy, it is an important metrological unit (1080): divide a circumference of 3393 by 108 = 3.1416666.

$60, 60^2, 60^3, 60^4, = 12,960,000$

SYNCHROGRAPH C: #108, AUM THE MANDALOG OF THE UNIVERSE

"In India, where the first form to appear in the lotus of Vishnu's dream is seen as Brahma, it is held that when the cosmic dream dissolves, after 100 Brahma years, its Brahma too will disappear--to reappear, however, when the lotus again unfolds. Now one Brahma year is reckoned as 360 Brahma days and nights, each night and each day consisting of 12,000,000 divine years. But each divine year, in turn, consists of 360 human years; so that one full day and night of Brahma, or 24,000,000 divine years, contains 24,000,000 times 360 or 8,640,000,000 human years, just as in our own system of reckoning the 24 hours of a day contain 86,400 seconds--each second corresponding to the length of time, furthermore, of one heartbeat of a human body in perfect physical condition. Thus it appears not only that the temporal order written on the faces of our clocks is the same as that of the Indian god Vishnu's dream, but also that there is built into this system the mythological concept of a correspondence between the organic rhythms of the human body as a microcosm and the cycling eons of the universe, the macrocosm."

Joseph Campbell, *The Mythic Image*

Hindu polytheism implies many discrete points of view. These non-conflicting beliefs are logical conclusions drawn from the premises and reached through the accessible methods that constitute each approach. Each one is real within its own field. The builders of these points of view are not called thinkers, prophets, or philosophers--but "SEERS."

As such, Marshall was a seer when he conceived Synchrograph C or Synch "See," as a mandalog of concentric circles, in the tradition of the *mantras*, *mandalas*, and *yantras* (graphic mantram).

In a gestalt approach to the concept of number or the field analysis of number behavior, any specific number is considered in terms of the neighborhood in which

it dwells, instead of by some individual feature which it may share with some other family member.

Graphic displays can reveal certain features of number behavior which remain hidden in numerical or linguistic terms. The neighborhood of special numbers can be revealed by certain spiralic displays of circular unity (mandalogs).

#108 as the Hindu number of the Universe is one such circular totality which encodes the structure of Epochs or Divine Ages. Since the incremental numbers of the ages are multiples of #108, when enspiralled along 108 axes, the characters 0 - 6480 all align along the zero/108 axis -- they share the same neighborhood.

The synchrographic structure of the two ancient Hindu modules of circular unity disclose that the *Yugas* fall into a perfect tertiary symmetry. The Ages assume a perfect quadric symmetry when spiralled along 108 axes of a number field, array, or matrix. The final number of this synchrograph is 6480. The number of zeros at the end of any astronomical Hindu number is nearly arbitrary. The glyph unifies the two ancient systems.

These high factorial number arrays preceded modern forms of circular unity, even perhaps the Babylonian adoption of 360 as circular unity in that 108 is 3×36 .

The number wheel, Synchrograph C #108, enspirals the natural number series around a field divided into 108 radial increments from zero to 6480. Since #108 is 3×36 , and both systems mutually include the square of 36 (1296), it becomes evident that the classic 360 degree circular unity is the common denominator of these two separate systems.

"The word OM," said Ramakrishna to his friends, "is Brahman. Following the trail of OM, one attains Brahmin." The vowel O in Sanskrit is regarded as a fusion of A and U.

Note also that the numbers that represent these two systems all fall in the same zero axis. Also note, the sum of the *Yugas* (4320) end at two thirds of this axis ($6480 - 3 = 2160$: Platonic month = $12 \times 2160 = 25920$, Precessional numbers).

In the configuration of this mandalog, the four-digit palindromic sequence "1881, 2772, 3663, 4554, 5445," etc. fall in a quadric array, and the turnaround or nave of transpalindromicity (49.5) synchronizes the corner of the square with the side of the triangle, i.e. the nave between 45 and 54 (which added together equals 99).

Contemplation of this wheel discloses the complete menagery of "sacred numbers," the key numbers of ancient metrology and the Holotomic Sequence in positions that yield a perfect symmetry where only chaos exists in classical number theory.

Nature's behaviors coincide with the most crucial divisions of the continuum of base ten number. This wheel reveals a rhythmic series of revelations that are otherwise not available for contemplation.

Prior to this development, there were no most useful base ten Hindu characters with place valuation which makes the retrocity of the base wave visible. But since Sumerian times, there were Tables of Multiplication which clearly demonstrated the factors of divisibility of even astronomically large sums.

The certain numbers which stood out for their special properties came to be recognized as sacred or divine. As we have seen elsewhere, these are closely related to the Holotomic Sequence, which has its nave in the perfect number 6.

12 - 24 - 72 - 360 - 2520, etc. are all key numbers in the Sumerians so-called sexagesimal system. It was not beyond the Sumerians to determine their factors of divisibility even when they had no concept of the unique properties of prime numbers.

SIX, not sixty, is the key to the original system, which much later influenced the development of Hindu numerals and Divine Ages. There was a decimal subtext to the original Sumerian sexagesimal system.

Numeronomy is naturally based on six, not sixty. The assumption of sixty as the number on which the Sumerians based their system of calculation creates a difficulty in seeing how the number six, by itself, gives the foundation for the synchronization of number and geometry.

Six as the first perfect number denotes circular unity in planal geometry and accomodates Synergetics requirements for wholeness. By doubling six, we involve spherical unity represented by the close pack of 12 spheres around one. The number 60 shows no such harmony. Symmetry and synchronicity of planal and spatial systems of geometry and number share a basic unified interface.

60 is not a Holotome, and does not represent a symmetrical retrograde unity when mapped out in the synchrographic discipline.

It does however contain a unique nature in that it is the lowest number to accomodate 2, 3, 4, 6, and 8. ITS MISSING DIVISORS, FIVE AND SEVEN are conspicuously absent in either the Yugas or Ages.

NO FIVES EXIST IN THE YUGAS; NO SEVENS OR THREE EXISTS IN THE AGES. 2, 3, 5, 7, 11, and 13 are the first primes.

The absence of these specific primes in these modules holds an important key to the preBabylonian use of number thirtysix. $3 \times 36 = 108$, the Hindu number of the Universe, another form of totality. In each block of the divine epochs, the sum number of each block is tenfold the initial number. These calendaric values could have been discovered by contemplation on multiplication tables, and observational astronomy.

$$12 \times 3 = 36 \times 3 \quad 108 \quad 6^2 = 36$$

All numbers divisible by Holotome A: #12
 $432 = 12 \times 36$ $648 = 12 \times 54$

The Sumerian calendar was based on the 25,920 Precession cycles. While the Platonic Year was based on the divine number 2160 (1080 x 2). Plato mentions another divine number in his Republic, 5040 (2520 x 2).

$$12 \times 2160 = 25920$$

$$20 \times 108 = 2160$$

$$36 \times 60 = 2160$$

$$2160 + 360 = 2520$$

$$2160 + 432 = 2592$$

So, the crucial key to the anatomy of BASETEN NUMBER BEHAVIOR lies in the special series of number modeules referred to as the Holotomic Sequence.

It represents the ordinal series of those minimal numbers that accomodate the maximum amount of consecutive factors of division from one onwards. The first nine members of the sequence include these symmetrical entities.

12

24

72

360

2520

27720

360360

6126120

116396280

The first four numbers are recognized as numbers frequently used in prebabylonian times as metrological modules--the zodiac, 24 hours of the daily cycle; 72 = 1 degree of arc every 72 years; 360 degrees in a circle.

The next number (2520) is not commonly recognized, but 5040 was held in importance by Plato and alluded to in Revelations through the number 1260 (1260 x 2 = 2520).

THE MAJOR SIGNIFICANCE OF 2520 IS THAT IT IS THE FIRST NUMBER DIVISIBLE BY ALL NINE BASE DIGITS. FOR THIS REASON WE CALL IT THE AURIC KEY, for it made numeronomy graphically visible.

The next number 27720 of course is divisible by the first palindromic prime which is eleven and through its intimate connection to number nine is instrumental in the cycloreflexive wave that both separates and connects the Holotomes from and to each other. That is, it preserves the logical continuity of the transfinite chain of number. Each holotome retains and builds on the image of the one that precedes it.

The semiarbitrary answer to the question of why some unknown geometer selected 360 degrees for equating a circle has been that 360 has more than the usual amount of divisors for its size. This is not necessarily a complete, specific, and logical answer.

As a matter of fact, 360 is divisible by all base digits except prime number seven and when we multiply 360 by prime number seven, we produce 2520 which is the first and lowest number divisible by all base digits.

Since by multiplying 2520 by the next prime and receiving another palindrome followed by a zero, i.e. 27720, we naturally decide to destrapolate this sequence to see where it begins:

$$27720 - 11 = 2520 - 7 = 360 - 5 = 72 - 3 = 24 - 2 = 12$$

Since these are exactly the most often cited numbers of ancient metrology we have arguably discovered a long-lost key to the basis of ancient metrology or numeronomy.

To amplify this claim, note that 12, 24, 72, 360, 2520, 27720, etc. are the exact sequence of minimum sums that accomodate the maximum amount of consecutive divisors (factors of division). #SIX was exactly half of the first true Holotome, making the first perfect number the nave of Holotome A (12).

The Holotomic Sequence was discovered through the systematic graphic analysis of the enspirament of number 108 (AUM), and so was the 9/11 Cycloflex.

Multiples of 360, show the linkage between 360 and 2520 by prime numbers 7 and 11; this table yields interesting results.

$$1 \times 360 = 360$$

$$2 \times 360 = 720$$

$$3 \times 360 = 1080; \text{ OM}$$

$$4 \times 360 = 1440$$

$$5 \times 360 = 1800 - \text{ half circle}$$

$$6 \times 360 = 2160 - \text{ age of years}$$

$$7 \times 360 = 2520 - \text{ Auric Key}$$

$$8 \times 360 = 2880$$

$$9 \times 360 = 3240; \times 2 \text{ sum of ages } 6480$$

$$10 \times 360 = 3600 - \text{ Sumerian sar}$$

$$11 \times 360 = 3960$$

$$12 \times 360 = 4320 - \text{ Maha Yuga} - 4 = 1080 \times 2 = 8640$$

$$12,000 \text{ years of mahayuga} \times 360 \text{ "divine years"} = 4,320,000$$

To summarize the Hindu translation of the divine years into human we arrive at the following:

$$4,800 \times 360 = 1,728,000 \text{ human years}$$

$$3,600 \times 360 = 1,296,000 \text{ "}$$

$$2,400 \times 360 = 864,000 \text{ "}$$

$$1,200 \times 360 = 432,000 \text{ "}$$

$$12,000 \text{ divine} = 4,320,000 \text{ human years} = 1 \text{ Great Cycle or Mahayuga}$$

Furthermore:

1,000 Mahayugas = 1 daytime (or 1 night) of Brahma (1 kalpa):
i.e. 12,000,000 divine years or 4,320,000,000 human years.

360 days and nights of Brahma (720 kalpas) = 1 Brahma year:
i.e. 8,640,000,000 divine or 3,110,400,000,000 human years.

100 Brahma years = 1 Brahma lifetime:
i.e. 864,000,000,000 divine or 311,040,000,000,000 human years.

THE SUMERIAN LEGACY

The Sumerian legacy is an integral aspect of Synchronographics. Historically, the first synchrograph could be considered their division of the sky into the 12 divisions of the Zodiac.

Zecharia Sitchin concludes that Sumerian science originated with the "gods from outer space." But it is not as mind-bending to imagine some more plausible alternatives to this "channelling." An ancient "Newton," "Leonardo," or "Einstein" could have bootstrapped his mathematical system from ages of pre-historical experience, 50,000 years of human observation of the heavens and earth.

Just like the nameless creator of the Phoenician alphabet, the name of the source was lost, but the useful knowledge retained. Steeped in legend and myth by Babylonian times it was attributed to a divine source just as we attribute our own moments of inspiration or genius to a higher source, beyond our ordinary selves. This nameless genius created an oral tradition whose tables and methods were eventually written down. At first, one had to be an initiate (priest or scribe) to use the methods. Later they were adopted in everyday life.

The ancient systematic observers noticed the regularity of the passages of the planets through the constellations of the fixed stars. They conceived the grandiose idea of a mathematically determined cosmic order of greatness with lesser ever-evolving cycles of celestial manifestation, disappearance and renewal. Man sought then to harmonize with these cycles through the timing of religious festivals and astronomically based calendars in imitation of heavenly circumstances.

The Precession of the Equinoxes was first noticed as a slow but steady slippage through the Zodiac of 1 degree every 72 years. To complete one cycle of the zodiac-- a "Great" or Platonic Year--requires 25,920 years. Dividing this sum by 360 yields the number 432, the root of the mythological count of 432,000 years. However, it is not only mythological, or archetypal--it was discovered by centuries of controlled astronomical observation, even prior to written record-keeping.

In India, the *Kali Yuga* is supposed to have begun on February 17, 3102 BC. The astronomical aspect of a *yuga* begins with the sun, moon, and planets in conjunction in the initial point of the ecliptic. Everything returns to the same point at the end of the age.

This belief originated way before Hindu astronomy and is cross-cultural. But 3102 BC is a good approximation of the invention of the arts of writing, mathematics, and astronomy--all of which are a remarkable effort at translating celestial mathematics into the ordering principle of life on earth.

This is the echo of the old Mesopotamian doctrine which reverberated through Greece and Rome (Berossos to Seneca) as well as India (*Yugas*). It spread all over the known world into Egypt, the Zoroastrians, and traces are even found in China, Mexico, and South America. The old Sumerian tradition of astronomical observation was the basis of all intellectual culture, and originator of the myths of eschatology, or end times.

The Sacred Portal

The sacred place, the center of transformation, has always been a refuge from the laws of the temporal world. Sacred space is the visionary gateway which opens communication with the transcendental reality of the divine. Here, as Jung states, "man is no longer a distinct individual but his mind widens out and merges into the mind of mankind--not the conscious mind, but the nconscious mind of mankind, where we are all the same.

When the concept of such a holy site or center is joined with a mathematically structured universe, derivation from ancient Mesopotamia must be suspected. It is the archetypal source, the navel of the world. In many cases, the center is conceived as an axis extending vertically upward and downward, with the center at the conjunction of the four cardinal direction.

This is the ancient model of sacred space, which corresponds in Synchrographics with the form of the T.R.I., the Triaxial Retrograde Interface. The three intersecting axes of Euclidean space with a shared coordinate.

The Hindus had a version of this centering mechanism called the regents of the directions. Brahma was in the overhead position, Vishnu below, with Shiva as the vertical axis. Each directions is attributed to a god and quality.

The essence of this image of the axial point or pole is that it symbolizes the way or place of passage from motion to rest, time to eternity, separation to unity; but then also, conversely rest to motion, eternity to time, unity to multiplicity. The realization of the nonduality of heaven and earth--even of being and nonbeing--is assimilated in the **sacred center**. The ego is sacrificed in the primal waters of deathlessness, and released to be carried in all directions. This is the mystical-psychological sense of sacrifice in all great religions.

A solar hero is the most frequent embodiment of this process of purgation, illumination, and unification. He unites the religious significance of the sun, the zodiac, and the seasons with circular or cyclic determinism. Man sought to rise and share the great cycle with the sun and stars, to climb beyond the material universe to the immaterial realm of the world-sustaining sun. The ageless concept of the new dimension transcending linear,

historical time echoes Mesopotamian cosmology. We ourselves are already that light of consciousness, that ground of being.

THE JUNGIAN APPROACH TO NUMBER

Jung revealed how mythological images and numbers have always been associated with each other. Here, we find a correspondence between the Universe, #108, and cycles of the Sun.

Von Franz summarizes her Jungian view:

"The concept of natural numbers rests on an archetypal foundation. It represents a preconscious pattern of thought common to all human psyches, and therefore constitutes the basis for transmitting knowledge to a greater degree than mythological images, which exhibit more ethnological variations.

"Those aspects of the number archetype which present-day Western mathematics has made conscious in no way exhaust all its aspects...The preconscious aspect of natural numbers points to the idea of a numerical field in which individual numbers figure as energetic phenomena or rhythmical configurations. The "field," which we take to represent the structural outlines of the collective unconscious, is organized around the central archetype of the Self (which corresponds with the Sun, which corresponds with 108, and Brahma). For this reason historical mandala structures deserve particular attention. In corresponding "cosmic models" and mathematical representations of God, the first four numbers predominate to an exceptional degree.

"...These synchronistic and parapsychological aspects of number...can only be fathomed when we take into account the unconscious emotional setup and preconscious fantasies of the observer along with his conscious mental situation and outlook. The description of such phenomena will of course no longer produce universally valid theories, but rather transmittable realizations that can exert a mind-releasing, community-building effect, just as scientific advances did in the past. The common denominator in mankind's cognitive processes thereby shifts from the level of doctrinaire intellectualism onto another plane. It centers instead on the realization of an a priori psychic structure common to all men. Depending on the epoch and an individual's creative abilities, the basic substratum becomes clothed in the most varied shapes and conscious formulations, progressively transforming 'ancient, eternal truths' into more highly differentiated conscious patterns of realization.

"As the ultimate verification of these processes stands the objective psyche and its synchronistic manifestations, which contain the mystery of the sporadic conjunction of psychic and physical events, revealing a common 'meaning.' . . .When we take into account the individual characteristics of natural numbers, we can actually demonstrate that they produce the same ordering effects in the physical and psychic realms; they therefore appear to constitute the most basic constants of nature expressing unitary psychophysical reality."

The Development of Mathematics

According to Singer's **A Short History of Scientific Ideas**, something of the nature of mathematics must be much older than the earliest documented examples. In tribal pre-history mankind watched the movement of the heavens and kept tallies of the passage of cycles of both lunar and solar nature. The importance of the Sun grew with the rise of agriculture and the importance of dating planting and harvest times accurately.

By Sumerian times, numbers were represented in a system which combined a decimal with a sexagesimal notation. It embodied the principle of place-value, but not as we now know it. Shifting a number one place to the left multiplied its value sixty-fold, successive shifts to the right corresponded to repeated divisions by sixty to form sexagesimal fractions. In later Babylonia of the Seleucid period, the texts employ a 'zero' to indicate an empty sexagesimal place between two other figures. Remnants of the sexagesimal system survive with us in the 360 degrees of the circle, etc.

The mathematical texts usually consist either of tables for multiplication, squaring of numbers, etc. or of worked examples illustrating the solution of elementary geometrical or algebraic problems. The geometry amounts to little more than estimations of the areas of fields, though the special property of the right-angled triangle was known. The ratio of the circumference of a circle to its diameter, *pi*, was taken as equal to 3. This is the value adopted in the Old Testament, perhaps under Babylonian influence.

The algebra of the Old Babylonians could solve quadratic equations by a procedure equivalent to evaluating the modern formula, which gives the roots in terms of the coefficients, though the known texts nowhere quote or prove this rule. They also handled linear equations in several unknowns and even attempted to solve cubic and biquadratic equations.

The Old Babylonians astronomy amounted to little more than recognition of bright stars, arbitrary demarcations of the heavens, and often undated observations of striking celestial or atmospheric phenomena. There are also records of omens drawn from these, whose significance marks the beginning of astrology. Originally used to predict the fortunes of contending kingdoms, horoscope astrology subsequently developed into complex procedures for foretelling the destinies of individuals.

The later or Seleucid texts, on the other hand, embody complicated systems of theoretical astronomy. These were elaborated by the temple priests who observed the heavens from characteristic stepped watch-towers or temples, of which the Tower of Babel is a reminder.

The periodicity exhibited by the planets, and more particularly the revolutions of the sun and moon, were utilized for the measurement of time. The monthly changes of the moon are more obvious than the annual travel of the sun. So the lunar calendar was retained for religious purposes, while the solar was adopted for agriculture.

No natural numerical relation exists between the lunar month and the solar year. But by the fifth century BC, it was established that 19 solar years are equal to 235 lunar months (125 of 30 days and 110 of 29 days each) to within a fraction of a day. These 19 years, comprising 12 of 12 months each and 7 of 13 months each, were combined in a certain order to form what has been called, after the alleged Greek inventor Meton, the Metonic Cycle. The sequence in which 29-day and 30-day months followed one another was seen to be affected by the variations in the rates of motion of sun and moon, by the latitude of the moon, and by the inclination of the ecliptic to the horizon.

In the tables for predicting the dates of successive new moons, separate columns indicated the corrections to be separately applied for these various factors affecting the length of the month. They represented fluctuating discontinuity between upper and lower limits in a characteristic manner. The Babylonian tables, which extended also to the prediction of planetary phenomena, have been classified into two main systems, according to the methods employed to represent the variation of the sun's rate of motion through the course of a year. (adapted freely from **The Short History of Science**).

Indian Mathematics

The Indus civilization also learned its first lessons in mathematics from astronomy, the gateway to time reckoning and temple building. In the arithmetic of trade, the merchants of India were the equals of those of Mesopotamia.

Until about 2000 years ago, they probably used numerals made up of horizontal strokes. When they began to use dried palm leaves as writing material and developed a flowing style of writing, they also began to join up these strokes, so that became and became. In this way they gradually built up different signs for each number up to nine. Each sign could be conveniently used to indicate the number of pebbles in any groove of the abacus.

The Indians learned how to tell not only how many pebbles are in a groove, but also which groove they are in. The far right stood for units, the next to the left for tens, then hundreds, and so on. An empty column used a dot, as we now use zero. Thus each value meant only that one figure.

This system does away with space-consuming repetition. We can record the same number on any groove of the abacus by using the same sign. Saving space is only a small advantage. The great advantage of the Hindu system is that it enables us to calculate with numbers.

Other ancient systems of writing all relied on the use of different symbols for the same number of pebbles in different grooves of the abacus. Before you could do written or mental calculations with them, you would need to learn a different table of addition and multiplication for each groove. When there are only nine different signs, each of which can show the number of pebbles in any groove, and a zero indicates empty grooves, you need learn only one simple table, once and for all. You can carry over in your head because there is only one simple table to remember.

The Hindu number language quickly led to a revolution in the art of calculation. The mathematicians of India began to think in fractions and write them in the modern way. **By 500 AD, Indian mathematicians had solved problems that baffled the greatest scholars of antiquity. The mathematician Varahamihira calculated how to forecast the positions of the planets; Aryabhata wrote a rule for finding square roots and gave the value for pi as 3.1416.**

Around 800 AD, this numerical system was exported to Baghdad on the age-old caravan route. The Muslims used trigonometry. Because they had mastered the new arithmetic of India, they could make much fuller use of the geometry of Euclid. Improved navigational equipment emerged from the observatories which also had improved equipment. Knowledge took a big leap forward between 800-900 AD, when East met West in Baghdad, and the **base ten system** became the standard..

SYNERGETIC BASE-TEN NUMBER DYNAMICS

"Henri Poincare, for instance, says: "Every whole [natural] number is detached from the others, it possesses its own individuality, so to speak; each one of them forms a kind of exception, for which reason also general theorems of number theory are but seldom forthcoming." Nevertheless, this individual aspect of number appears to contain the mysterious factor that enables it to organize psyche and matter jointly."

M.-L. von Franz, Number and Time

"Consequently, it is not only the parallelism of concepts which nowadays draws physics and psychology together, but more significantly the psychic dynamics of the concept of number as an archetypal actuality appearing in its "transgressive" aspect in the realm of matter. It preconsciously orders both psychic thought processes and the manifestations of material reality. As the active ordering factor, it represents the essence of what we generally term 'mind'."

M.-L. von Franz, Number and Time

The Synergetic Natural Number Continuum

The continuum of base ten number is generally looked upon as a progressive and linear series of cardinal and ordinal numbers. Iterations signify the simple addition of the initial unit to each resulting member encountered in the continuing series of elements known as numbers. The digits 1 - 9 are known as integers or numerals. Of course, multiples of 10, 100, 1000, etc. are formed simply by adding zeros.

Further analysis discloses that this continuum can be viewed as both progressive and regressive. It is not exclusively linear, but has a cyclic function resulting from the terminal character of the last base digit and the next beginning initiated by zero producing the two-digit range. This doubling of number is for all practical purposes a cyclic function that recycles again and again with each ten-fold group produced.

Besides the cyclic and ambidirectional aspects of the number series, there is also a periodic series of reversals that occur in conjunction with the cyclic aspect.

This ongoing combination of diverse functions can be considered a mixing effect not unlike an egg beater that folds the medium over and over. Remember, from our previous discussion that **"OM is said to issue from a process of multifold reflection."** That process, exactly, is revealed in the number continuum when we can hold a metaphorical mirror up to nature's primal manifestation--the natural number sequence.

The key to the comprehensive analysis of general number behavior is found in the concept of "circular unity." Circular unity is an idea demonstrated by the harmonious interaction of the first six numbers. SIX is the first perfect number is the sum of its first three digits, or $1 + 2 + 3 = 6$.

$1 \times 2 \times 3 = 6$; $6^2 = 36$; $36 \times 3 = 108$; $36^2 = 1296$ $\times 2 = 2592$.

The term "unity" (or Universe for that matter) implies something that is composed of parts. Fuller agreed, and stated it as, Unity is plural and at minimum two, or at minimum six.

The sequence of perfect numbers (6, 28, 496, etc.) does not have the structural nor metrological significance of the Holotomic Sequence, which graphically displays an important structural order within prime number distribution.

Note that the first Pythagorean Triple 3:4:5 equals 12, which is Holotome A (which is also twice the first perfect number). $3 + 4 + 5 = 12$.

The sheer complexity of the waves and cycles that are generated within the base ten continuum cannot be described nor explained with conventional modes of philosophical description. Number theorists must resort to higher mathematics. But these cycles can be demonstrated graphically so they are visible even to those not mathematically inclined.

Synchrographics has been systematically contrived to formally illustrate behavioral patterns that have successfully led to a general understanding of the fundamental elements of the geometrical nature of the base ten system.

Can we find a cosmic mandate expressing Fuller's assertion that unity is plural and at minimum sixfold? The Holotomes and Holotomic Sequence fulfill this mandate with neat, logical finite sections. They represent circular unity and whatever else remains of the "infinite rest" that swells beyond our immediate focus.

When we refer to the base of a number system, such as base ten, we are also referring to the amount of iterations in a loop or cycle for the FOLDMENT that multiplies the base and the multiples of that base is for all purposes a circle.

The coexistent independency and interdependency of the base digits creates the rational notion that continuity is discontinuous. From this we derive the closed loop logic of the Holotomes as discrete levels of finitude.

The graphic importance of this particular Holotomic Sequence is that circular symmetry is being conserved and may be enlisted as the fundamental reference key in the graphic investigation of number behavior. The primes are deployed in symmetrical interface only within these specific Holotomic domains.

The Synchrographic process of regarding symmetry as a primary analytical aspect of reference makes the Syndex archetypal system of fundamental classes of numbers possible. The foundation of this system is the palindromes and transpalindromes.

These 12 archetypal classes of number are catalogued by the ambidirectional glyphs that discloses the transbinomial nature of any individual number. Only 12 permutations exist in the total foldment of the number field or domain: Retrosquare Primes, Retroprime composites, tranpalindromes squares, etc.

The so-called four fundamental operations of arithmetic are in reality two binomial pairs: addition is reverse subtraction; multiplication is reverse division.

The term transpalindrome is invoked merely to establish a context through which to establish a bilateral system of numerical classification, that is, to create a notational link between any integer of 2-digits or more with its antithetical or reverse companion. For example, number 21 is the transpalindromic companion of number 12.

This simple concept brings into being a host of valid structural relationships that would otherwise be totally ignored. For example, number 16 is the ONLY 2-digit square that is a prime when reversed: 16 is a square, 61 is a prime. We call number 16 a retroprime square, and number 61 is conversely termed a retrosquare prime.

Without this classification system, it is impossible to analyze the number field. Palindromes, or binomial reflection numbers are neither purely accidental nor without significance. Remember, OM issued from a process of multifold reflection to create the entire universe of phenomena.

It is through the classification process that the enigma of prime number distribution has been solved. By labelling all possible permutations of the ambidirectional system of number dynamics, we find there are twelve discrete members in the domain of number class.

In order to systematize the study of the base ten concept, a graphic format was essential to organize sizable spans of the continuum for in-depth analysis. The enspirament of number offered itself as the ideal format. The cyclations of the spiral could be referenced to the longer cyclic periods intrinsic to number itself. There are cycles within cycles, more readily seen in graphic format than in a continuous sequence.

This was the general reasoning for adopting the synchrographic methods: to condense, or sample the number continuum, and establish reference to related periods of cyclicity.

The fundamental basis of the compound cycling begins with the circular unity six (ref. Fuller). It is the 2-dimensional circular unity of the spherical 3d model of sacred space which is composed of the nexus of the four cardinal directions with a vertical axis,

(T.R.I.), six ambidirectional axes. It leads directly into the full spectrum of SYNDEX discoveries, or the nuts and bolts of general Numeronomy:

#1. The Triaxial Retrograde Interface is the fundamental program for circular and symmetrical retrograde unity and the general basis of the Holotome's profile. $1 + 2 + 3 = 6$; $1 \times 2 \times 3 = 6$. $6^2 = 36$; $36^2 = 1296$. $60, 60^2, 60^3, 60^4 = 12,960,000$.

2. Description of the proliferation of the Holotomic Sequence by prime number multiplexing; list of first five holotomes and synchrographics describing them.

12
24
72
360
2520

#3. The twelve Syndex glyphs denoting the archetypal system of ambidirectional number classification; also the general explanation of transpalindromicity. The alphabet of number class includes: palindromic primes (11, 101); retrosquare prime (61); transpalindromic squares (144, 441); retrosquare composite (46); palindromic composite (33, 99); retrocomposite prime (41); transpalindromic primes (13, 31); retroprime square (16); palindromic squares (121); retrocomposite square (64); transpalindromic composite (12, 21); retroprime composite (14).

#4. The exemplary nineleven retrograde octave wavecycle and prime/square/composite triplex diagram, denoting the profile of 9/11 cycle in conjunction with the four 2-digit pairs of transpalindromic primes. Also various descriptions of transpalindromic profile in 2, 3, 4, 5, 6, 7, and 8 digit multiples of 99 sequences. The 9/11 wave cycle was discovered on Synchrograph C, #108.

#5. How retroadditive sums of holotomes produce 1/3, 2/3 or full 99 count or even multiples of 99, thus synchronizing with exemplary wavecycle.

#6. The fourteen 3-digit pairs of transpalindromic primes.

#7. The location of holotomes in exemplary 99 wavecycle path.

#8. Tracks denoting interval symmetry of primes: Holotome D.

#9. Ancient Metrology: The Sumerian knowledge of the Precession of the Equinoxes: $72 \times 360 = 25,920$; and the Holotomes as circular unity, 12 - 24 72 - 360 - 2520, etc. Here the intrinsic structure of number coincides with nature's scenario. And the Hindus used exactly the same figures as metrological modules, as have all subsequent civilizations. Temple architecture is based on multiples of $36 = 6^2$.

So, Numeronomy, the laws relating to the essential structure and dynamics of number, is a new word for an extremely ancient science. This science, based on the knowledge that the continuum contains a definite structural order with general laws that describe the nature of that order, has laws that relate to the general behavior of nature itself.

In Synchrographics, the cyclic and reflexive nature of the cardinal/ordinal number series is portrayed through a graphic context which reveals the minimal set of key numbers required to show the coherent nature of prime number order.

Synchrographics suggests some new terms, including a 12 symbol alphabet which is justified by the context. Systematic investigation of the intrinsic structure of the numeric series is purely a matter of selecting a graphic method of mapping numbers in their natural order so that geometrical order is also an integral aspect of that sequence.

The system of multiradial and multiaxial interfacing between number and idea is called spatial formation. The maps that include the relationships of circular unity and the distribution of primes and other classes of number are called mandalogs.

The employment of this multirelational spread sheet permits the number analyst to consider aspects of the numeric continuum that would otherwise not be taken into account and therefore beyond the order-seeking functions of human mentality.

The first important concept of numeronomy is the exemplary base wave. The wave begins both before and after number 10. In fact, it is called the nineleven cycloflex because it is the result of the mutual interaction of both nine and eleven.

This wave begins at ten and concludes its first cycle at 99 ($9 \times 11 = 99$). Then it continues through the multiples of 99 and never ends. This is called exemplary because it sets up a continuous pattern that never ceases and never changes. This pattern is responsible for the continuous integrity of number behavior.

Numeronomy

Numeronomy, or the laws governing the behavior of the continuum of quantitative notation is the natural result of numerology, the study of number. Numeronomy is the outcome of Synchrographics. Numbers speak for themselves through structure and behavior.

The single most important discovery of the SYNDEX PROJECT is the Holotome and the Holotomic Sequence, created by prime number multiplexing. It was discovered on Synchrograph C.

The second most important discovery is the Exemplary Basewave Octave or Nineleven Cycloflex. It was also discovered by meditating on the C Graph.

The third important discovery is the four pairs of 2-digit transpalindromic primes which served as major clues to the discovery of the coherent order of prime number distribution.

The fourth discovery is how the Holotomes relate to the exemplary octave wavecycle.

Number/geometry is the fundamental cornerstone of human communication and specifically the alphanumeric principle of descriptive notation. The T.R.I. represents the geonumerical basis of the sequence of minimal pluralities that accommodate the maximum

amount of dividing factors. The Holotomic mandalogs display the retrograde symmetry of each of the circular unities in the form of a half positive and half negative octave system predicated on the octave nature of the so-called base ten system of number.

The base ten system of number is an octave system, where either one or nine can be seen as a null value event.

Furthermore, this octave can be regarded as a cyclic function. The zero, one, or nine can function as the null event which acts as the null value gap between the beginning and ending of the octave retrograde cyclation, due to its half positive and half negative symmetrical cycle (which negates the numerical value of one or nine just as if they were of the same nature as zero).

Due to the octave nature of the eight true numbers, no transpalindromic sequence can exceed an octave cycle.

Each Holotome in the sequence of holotomes when represented in a radial series of the numbers is composed of a perfectly symmetrical array of prime numbers diametrically opposed to other prime numbers or numbers composed of primes multiplying other primes. Also, the intervals that separate the primes are diametrically opposed to the same magnitude intervals across the wheel, yielding 100% perfect radial symmetry.

In the context of the Holotomes, then, the deployment of prime numbers is an orderly progression. This ends the tradition that the primes do not occur according to any recognizable pattern.

This is the essence of the holotomes and their graphic elegance. Graphical elegance is often found in simplicity of design and complexity of data. Visually attractive graphics also gather their power from content and interpretations beyond the immediate display of some numbers. The best graphics are about the useful and important, about life and death, about the universe. Beautiful graphics do not traffic with the trivial.

On rare occasions, graphical architecture combines with the data content to yield a uniquely spectacular graphic. Such performances can be described and admired, but there are no compositional principles on how to create that one wonderful graphic in a million.

Number is considered so simple and mundane in nature that a popular assumption exists that there is nothing more to know about it that could really be of any valid significance. In a sense, number is self evident and apparently contains no subtle mysteries.

Contrary to this attitude, number is the repository of a highly complex system of very intricate and involved interrelationships that have shaped the cosmological and religious backgrounds of all cultures. They affect us unconsciously at the deepest levels of our belief system, which in turn conditions our thoughts, feeling, and behavior.

The true mechanisms operating in the number chain can be shown in a system of incremental spirals portraying the numeric continuum and the special events which occur in it. R.B. Fuller recognized this when he wrote to Marshall, March 3, 1981:

"Your cyclic synchrographing work clarifies and simplifies this whole matter to an epochal degree."

SYNCHROGRAPHICS

Synchrographics is an innovative, systematic discipline interfacing the natural base ten integer progression with the fundamental elements of geometry. This institutes a graphic synthesis of the the two basic disciplines which in essence are initially two interdependent concepts that only occur through their mutuality.

The Pythagorean Triples that begin with the 3-4-5 triangle bring to note this initial unity of number and geometry attesting to the scientific validity of the synchrographic method of analysing relationships. They are not at all evident without such an interdisciplinary medium.

Each holotome expressed in synchrographic form is geometrically symmetrical. The base digits of the parallel spirals of iterating squares give direct visual evidence of the factorial degree of any specific integer by the occurrence of squares that have been color-coded for that particular incident of synchronicity.

In that the initial holotome is twelve and all subsequent holotomes are a multiple of that number, the valuable duodecimal interface that encompasses the base digits is reflected in the substratum of all holotomes.

Synchrographics offers a plausible answer to the question of why the Babylonians adopted the 360 degree circular unity. The ancient Hindus chose 108, which is 3×36 .) The classic answer is that 360 has many divisors. But perhaps some unknown numerist discovered this sequence in the ancient past.

This sequence is generated by doubling the first perfect number six to equal 12. Then doubling 12 for 24. Then multiplying 24 by the first true prime $12 \times 3 = 72$. Then by multiplying that number by the next true prime $72 \times 5 = 360$. Then multiplying that by the next true prime: $360 \times 7 = 2520$, etc.

By beginning with twelve we have already involved 2, 3, 4, and 6. By doubling 12 we have involved #8. or five of the base digits. By multiplying 24 by prime number three, we involve nine, or six base digits. By multiplying 72 by 5, we involve seven base digits or 2, 3, 4, 5, 6, 8 and 9. Finally, by multiplying 360 by 7 we have captured them all: 2520.

If the Babylonian metrologists knew of this, neither they nor modern number theorists make mention of it.

Whatever the case, the Holotomes are ideally adapted as instruments for translating intricate geometrical interrelationships into the language of number. Only through the careful study of these special modules does the exquisite order of prime number occurrence become obvious, for the primes are found to be deployed in symmetrical interface only within these specific holotomic domains.

Thus, number stripped of its structural character is reduced to the empty and monotonous iterations used essentially for counting objects and measuring distances. When numbers, on the other hand, are permitted to be deployed in cycles that are in phase with their already inherent rhythms, a clearer picture emerges.

All mandalogs are the product of the systematic generation of the exact sequence of minimax factorization. They have the perfect retrograde feature by which the patterns generated in the first half of the spiral are reversed at midpoint and are reflected as a mirrored image in the second half of the spiral. Remember, OM was formed by multifold reflection!

Also, because of the existence of palindromes and other reflective qualities issuing through each holotome there is an exemplary wave form that begins at the end of the first holotome. This is a dual component wave, resembling the DNA helix. The wave begins amid number ten and is composed of square number nine and palindromic prime number eleven.

This compound cyclic wave is labeled the nineleven cycloflex. It cycles and oscillates through multiples of ninety-nine and produces decant or tenfold series of consistent tranpalindromic sequences or numbers. Each number in the sequence has its perfect reversal on the corresponding other side.

The total reversal of number should always have been expected in that the number chain is by its graphic nature a two-way street, refolded again in the four fundamental operations of arithmetic.

The graphic mandalogs contain a rational and logical system of interrelating number and geometry or quality and quantity. They are graphic expressions of identical ideas regarding the descriptions of events in nature.

A critical consideration in expressing the optimum number of interrelated ratios is to do so with a minimum amount of graphic details. That is, to show the most information with the least given axis of reference. The mandalogs, or number wheels, are mathematical entities which express a plurality of interdependent formulae in a simple singular system.

**The cornerstone of SYNCHROGRAPHICS is the preliminary Pythagorean Triple:
 $3 + 4 + 5 = 12$:**

**Holotome A times two equals B or 24
times prime number three equals C or 72
times prime number five equals D or 360
times prime number seven equals E or 2520
times prime number eleven equals F or 27720
times prime number thirteen equals G or 360360**

In this way, the minimal numbers that accommodate the maximum amount of consecutive factors of division are generated by the multiplication of each resultant sum with the next prime number in its natural order of occurrence.

Each of these Holotomes is a number of special geometry, a circular unity. Expressed as a geometrical entity, a synchrographed Holotome is found to be reflectively symmetrical. At its midpoint, its initial pattern reverses and its second half becomes a reflection of its first half, much as OM created the Universe through its "multifold reflection."

J.S. Bach used this numerical phenomena in his **Crab Canon** or Retrograde Fugue. The breakdown of that notation was 22×144 or 3168. This number is cited in the Qabala as the perimeter of Solomon's temple: $3168 - 1008 = 3.1428571$ (4×252).

The secret traditions seem to have made liberal use of the Holotomes without ever pointing them out.

The number 3168 has special qualities: By adding the palindrome which is the sum of a palindrome times another palindrome:

3168
5445 : 55 x 99
8613

We get a reversal of the initial number.

The ninety-nine cycle is the carrier wave of the transpalindromic reflection sequence. This sequence is crucial to the mapping of the natural number scenario because the 99 cycle issues through the Holotomes.

The Holotomes are ideally adapted as an instrument for translating into the language of number the intricate geometrical interrelations between the configurations of cubic space. The Pythagorean Triples are the best examples of the interdependent nature of number and geometry. These triples logically deduced as an "infinite set" all share the 90 degree angle. They show the geonumeric character which describes the same ratios and interrelationships in different styles of notation.

Synchrographics begins with the assumption that since number and geometry are two ways of expressing the same set of ratios or relationships, then it holds true that a graphic device may be generated that faithfully aligns these two methods of notation in a synchronetic diagram. That is, a single notational system may express the geometrical nature of number and visa versa.

The "four progressively additive and four progressively subtractive event octaves with a ninth null event" depicts the primary cycle or finite extent of the initial program parameter.

With the turnaround occurring at ten (between square number nine and prime number eleven), the nineleven wavecycle then begins and proceeds to forty-nine and a half (49.5). It turns around and proceeds to ninety-nine (99), and thereafter continues through the multiples of 99 to 1089 or the only four-digit transpalindromic square. This is not a guess, since the mandalogs demonstrate it graphically.

The behavior or structure of the baseten system requires the perspective of an integrated complex where number and geometry are interqualifying aspects of an unified system of congruent identities. The character of notation determines whether data is in the form of number or geometry. Each requires the other in order to be expressed.

This interdependency authorizes the synchrograph to represent a number as a geometrical phenomena in which each holotome contains the triquadric core intitiated in number 12.

(Holotome A)

Thus, every subsequent holotome retains a copy of the initial data, plus new more involved data. **Each and every holotome is a symmetrical retrograde MANDALOG**, representing the four progressively additive then progressively subtractive event octaves with a ninth null event synchronicity. Altogether it represents the octave nine system of R.B. Fuller, or Marshall's nineleven cycloflex.

The exemplary compound wavecycle which proliferates through the multiples of 99 is the carrier wave that both integrates and isolates the Holotomes with accumulative integrity. In this scenario, the primes behave in an orderly manner through their special palindromic members:

13 31 17 71 37 73 79 97

The four pairs of two-digit palindromic primes form the octave bridge in the 99 cycle.

The general laws of number behavior can now be written from the behaviors clarified through synchrographic mapping techniques. Numeronomy is then expressed or emanated through the transpalindromic functions, which remain unseen in classical number theory and structure.

The intellectual separation of geometry from number removed from number the purely geometrical aspects of the numerical continuum that made the holotomes apparent as symmetrical mathematical entities.

Only through the study of these special modules does the exquisite order of prime number occurrence become obvious. These geometric number wheels are unique examples of circular unities.

The primes are deployed in symmetrical interface only within these specific Holotomic domains.

There is a way in which to seek out these entities by intermultiplying the primes from a special base module. Much in the way that the factorials are produced but with the difference that diminishes the huge sums that result from the redundant multiplication of the accumulating composites, out of what would have been primes.

We begin with six, the first perfect number, then double it to produce 12, which we call a holotome. This produces a **number wheel** that involves all of the base digits plus three of

the first two-digit numbers. This number wheel contains all of the needed geometry by which to proliferate the family of related Holotomes.

All mandalogs are the product of the systematic generation of the exact sequence of minimax factorization. They have the perfect retrograde feature which reverses at midpoint, because of the existence of palindromes and other reflective qualities.

The first solid indication of a rational link between prime numbers and square numbers was found in the diagram entitled the prime/square interface which actually includes the composites in that the full overview addresses the holistic interaction of all classes.

The prime/square interface diagram consists of a vertical column of the first one hundred and one numbers with their squares listed on a right hand column. The finite extent of this number map is calculated to encompass the full range of the 99 cycle. The cycle that contains the exemplary basewave that is essential to the structural integrity of the Holotomes. This wave in a certain sense is such that it determines the point places in the continuum where discontinuity may or may not occur.

The mandalog, then, is a graphic mathematical entity for the expression of a plurality of interdependent formula in a simplicated singular system, i.e. an information containment mechanism, or book: Holotome.

Such a device contains information and is at the same time a device to convey information clearly and accurately, with a minimal possibility of ambiguity, error, or paradox.

In classical systems of encoding and conveying information, elements of paradox occur through the vehicle of language itself. The fault generally exists in the very foundation of language at the fundamental level of syntax.

It is through the transpalindromic nature of the natural baseten number sequence that the irregular occurrence of prime numbers is recognized as a purely causally-determined pattern of rational explanation.

The classical approach to a study of prime numbers is such that the primes are considered more or less estranged from other classes of numbers in hopes that the primes might manifest some intrinsic rhythm of their own that could be found to account for distribution, density, etc.

No single class can be isolated as an element responsible as a determinant of any specified classes of behavior, since the full compliment of classes that comprize the self-modifying continuum interact congressionally.

Synchrographic analysis has shown that an exemplary wave form is formulated in the structuring of the base digits which when issuing through the sequence of numbers maintains its own structural quality even while it modifies the quality of the numerical event identities it encounters.

This wave form occurs through the mutual interaction of square number nine and palindromic prime number eleven. In that nine times eleven equals ninety-nine, the wave proliferates through the multiples of ninety-nine.

Fuller did not have the advantage of synchrographs to clearly see and properly describe this basewave. This description of an octave-nine system had the turnaround at fifty. The true nineleven turnaround is a 49.5.

The graphic mandalogs allow us to monitor the exemplary basewave that is guided through the continuum of natural number by the cyclic and reflexive qualities inherent in the special or noble numbers.

In the Prime/Square Interface Diagram, the basewave is seen to contain itself through the palindromic mechanism that is sustained through the four pairs of transpalindromic primes that act as transnumeric relay stations.

The tapestry of number is literally woven with the four warps and four woofs, or octave, of the transpalindromic bridge between the first and only two-digit palindromic prime number 11 and the first, but not only, 3-digit prime number 101--primes that are known to proliferate palindromes in being multiplied by themselves.

The full importance of the basewave continuity observed in the multiples of 99 is only realized when investigating its involvement in the structure of the Holotomes. The initial holotomes contain only a rational section of a complete cycle; that portion necessary to insure a quality of infinity, (the number repeating itself indefinitely).

The number structure or number behavior mapping technique makes number theory visibly coherent. Synchrographic techniques are scientifically systematic. The general scheme of Numeronomy involves a more complete system of classification which takes special note of both the palindromic and transpalindromic nature of number. It is possible (but remains to be calculated), that the holotomes contain a consistent ratio between

primes and non-primes with the holotomes that precede and follow.

TRANSPALINDROMES

Transpalindromicity of number is merely a term by which we include the reversal of any particular number exceeding a single digit. For example, 16 and 61.

Another example involving a transpalindromic distinction is when a reversed number remains in its class, like 13 and 31 which are both primes, i.e. transpalindromic primes as compared to a simple palindromic prime such as eleven. These are only twelve permutations possible within the whole continuum of number.

The complete analysis of number behavior is not possible without taking into account the palindromic and transpalindromic characters of number. This is the crucial and paramount reason that the behavior of prime numbers have remained an enigma for so long.

Number theory has ignored the ambidirectional reflexivity inherent in the number continuum. Regaining an impartial view of how reflexivity is totally conserved within the continuum leaves no gaps in the concept of numerical continuity.

The synchrographs and mandalogs used in this study are to support the continuity that has been disrupted by the belief that prime numbers are without connective order. Toward this end, we introduce approximately 16 new words that fill in the missing blanks to form a coherent picture or concept of true number dynamics.

The term "synchrostat" designates an event synchronicity in the numeric continuum. This term and its subsequent Tables were valuable tools in indentifying a cyclic series of numbers that embody features that were common to all members of the series. They embody and exemplify a practice that was used to explore many other cycles until the main base cycle was finally discovered.

(Synchrostat illus. here.)

Comprehend the universal nature of the transpalindromic function of number behavior is not easy. We tend to see the number chain as a unidirectional continuum, which is too linear for a synergetic perspective. Revisioning it with the concept of simultaneous counterflow yields a more accurate picture. With large spans of number, the complex interrelationships become difficult to visualize.

Fortunately, because of the octave nature of the base cycle there cannot be more than four consecutive transpalindromic pairs in a single symmetrical sequence, regardless of the amount of digits in each individual number.

However, we are only looking at the multiples of nine. But, in fact, all the numbers in between are also involved in transpalindromic transactions. To address such a complex interchange by graphic means can only be accomplished in a series of static cross-sections each involving no more than the eight required transactions.

The exemplary 99 wavecycle affords us a context that gives a graphic expression of total transpalindromic symmetry which it is possible to contemplate with clarity.

All the Holotomes contain the same general mechanism seen in the 99 cycle, but even the Holotomes must be contemplated in various graphic modes to capture their full integrity.

Transpalindromicity functions through the ambidirectional nature of number. It is therefore, the initial or primary function of number behavior in general. All details of number behavior derive primarily from a transpalindromic function operating through an ambidirectional chain of ambidirectional numerical events.

If any aspect of direction is left unconsidered in the behavior of any specified event then behavior observed in connection with that event will have been compromised. In the past, there has been a general disregard for the retrocity of number in general. Yet, no single function is more important or interesting than this transpalindromic nature in determining the basic waveforms inherent in baseten numeration.

Transpalindromic symmetry refers to a circular module of numerical relationships and interoperations which form a totally harmonious retrograde and symmetrical octave unity. The emphasis is not on palindromes, but on the relationship existing between palindromes and transpalindromes:

1089

Palindromes: 55 x 99 = 5445

9018

We can take any number, reverse it, add the two numbers together, continue to reverse and add, and eventually end up with a palindrome--a number whose digits appear in the same order whether they are read from left to right or from right to left.

Transpalindromic symmetry is not isolated to the few graphic expressions submitted here as examples to clarify the meaning of this neologism (transpalindromicity) on the subject of number behavior.

Transpalindromic behavior itself is a totally general condition of the number chain and is operative throughout the continuum. It is also a primary factor in the graphic disclosure of many subtle but important aspects of number behavior; an intrinsic structural condition effecting every and all numbers in their collective interactions.

Transpalindromic symmetry is a condition relating to specific isolated groups of number or special numerical quata where symmetry manifests as a collective mutual interaction.

A Holotome is such a collective interactive group where symmetry is herein claimed to be absolute.

A Holotome is distinguished by an integrity of retrograde octave symmetry, discrete levels of finitude and circular unity. Its expression in synchrographic form is a holistic synthesis of graphic syntax.

A contemplative instrument of inquiry into the relationships between words and the idea-pictures they mean to represent.

Transpalindromic symmetry means cycloreflexive synchronicity: what comes around

goes around. Palindromes are symmetrically flanked by up to four transpalindromic pairs.

SUMMARY

To summarize our main premises, note that the multiples of nine produce a transpalindromic loop, or wavecycle, which turns around at midpoint to produce a reverse series of companion numbers:

27
36
45
54
63
72
81
90

The first eight multiples of nine disclose an octave cycle of four forward and then four backward number events. This retrograde function progresses to a point between 45 and 54, where it reverses and then continues on in retrograde manner to 81, which is the reverse of 18. Thus a cycloflex or wave-cycle is apparent.

In addition to this +4, -4 cycle, the multiples of eleven produce a consistent series of two-digit palindromes: The first eight multiples of 11 are palindromes which then represent an octave of 8 forward ambidirectional number events, ending in 99 or 9×11 :

11
22
33
44
55
66
77
88
99

Thus, the number 99 is composed of 2 discrete octave sets that are synchronous:

9 11
18 22
27 33
36 44
45 55
54 66
63 77
72 88
81 99
90

The number 99, then, is a crucial module in the description of number behavior. It contains a full octave of eight sequential palindromes in the multiples of 11 and eight sequential transpalindromes in the multiples of nine. This module is then the archetypal prototype of the transpalindromic sequence which issues through the multiples of 99.

99
198

297
396
495
594
693
792
891
990
1089

Four forward then four backward event octaves with a ninth null event, altogether represent a NINELEVEN OCTAVE CYCLE.

It is through the transpalindromic nature of the natural number sequence that the irregular occurrence of prime numbers is recognized. It is a purely causally determined pattern of rational whole numbers.

In the classical approach to the study of prime numbers, the primes are considered more or less estranged from the other classes of number, in hopes that the primes might manifest some intrinsic rhythm of their own that could be found to account for distribution, density, etc.

Since the full compliment of classes that comprize the self-modifying numerical continuum interact congressionally, no single class can be isolated as an element responsible as a determinant of any specified classes behavior.

Synchrographic analysis has shown that an exemplary waveform is inherent in the structuring of the base digits. When issuing through the sequence of numbers it maintains its own structural quality while modifying the quality of the numerical event identities it encounters. This waveform occurs through the mutual interaction of square number nine and palindromic prime number eleven. In that nine times eleven equals ninety-nine, the wave proliferates through the multiples of ninety-nine.

Together, this pair interact to produce the exemplary transpalindromic wavecycle sequence which integrates the full band of number classes.

Buckminster Fuller, not having the advantage of the synchrograph did not clearly see and properly describe this basewave. His description of an octave-nine system had the wave turnaround at 50. The diagram shows the true nineeleven turnaround is at 49.5.

His description of "four progressively additive, then, four progressively subtractive event octaves, with a ninth null event" is a good description and perfectly adaptable to the actual scenario. The full ninety-nine cycle divided by two equals 49.5.

The involvement of prime number eleven in the palindromes has always been known.

$11 \times 11 = 121$
 $121 \times 11 = 1331$
 $1331 \times 11 = 14641$

And prime number 101:

$$101 \times 101 = 10201 \times 101 = 1030301$$

But the exact nature of the exemplary nineleven sequence has not been described until the present document.

The relation of the palindromic primes to the transpalindromic primes are found in the nintynine cycle. The four pairs of two-digit transpalindromic primes:

13 31 17 71 37 73 79 97

form a relay bridge between ten and one hundred within the nintynine cycle. See diagram entitled the PRIME/SQUARE INTERFACE.

The continuity in and the discontinuity between the holotomes is effected by the integrity of the exemplary nineleven wavecycle. Each holotome contains a rational section or an even multiple of nintynine:

$$\begin{aligned} 12 / 99 &= 0.121212 \\ 24 / 99 &= 0.242424 \\ 72 / 99 &= 0.727272 \\ 360 / 99 &= 3.636363 \\ 2520 / 99 &= 25.454545 \\ 27720 / 99 &= 280. \\ 360360 / 99 &= 3640 \\ 6126120 / 99 &= 61880 \\ &\text{etc.} \end{aligned}$$

There is a class of number not generally acknowledged in traditional number theory, found through the systematic exercise of synchrographics. It is mechanically instrumental to the general operations of number behavior through interactions with other familiar classes of number.

That any number of two or more digits, with the exception of numbers ending with a zero, has a reverse mate is obvious. The reverse of number twelve is twenty one, the reverse of thirteen is thirtyone, etc. This is the transpalindromic aspect of real numbers.

If the reverse mate of any specific number was of the same class as its forerunner then there would be no reason to regard the transpalindromic aspect as a designation of any structural distinction. It would simply be an "artifact" of the so-called Arabic numeral system. But, since for example, a square may be a prime when turned around, a structural distinction is obvious.

The square number sixteen becomes a prime when reversed. Sixteen, then, may be referred to as a retroprime square. As a matter of special interest, it is the ONLY two-digit square that is this class.

Any number which remains in its same class when reversed is a transpalindrome of that class. For example, thirteen and thirtyone are both primes, i.e. transpalindromic primes.

There are only four pairs of transpalindromic primes:

13 31 17 71 37 73 79 97

The following reference guide shows the structural relationships that influence the interbehaviors of number due to the transpalindromic distinctions.

(Insert the archetypal alphabet of number class here)

144 and 169 are the ONLY THREE DIGIT EXAMPLES of a transpalindromic square number.

$$12^2 = 144$$

$$21^2 = 441$$

$$13^2 = 169$$

$$31^2 = 961$$

The 12 -144 loop shows composites multiplying into squares of transpalindromic composites, while the 13 - 169 loop shows primes multiplying to squares of transpalindromic primes. Their roots are the transpalindromic composite number 12 and the transpalindromic prime number 13.

The structural distinction of these numerical identities is made evident. Their special characters are identified as active members of the mechanisms of numerical interaction. The graphic paraphenalia is available to monitor the exemplary basewave that is guided through the continuum of natural number by the cyclic and reflexive qualities inherent in the special members.

The flow or cascade of number is simulated in the synchrographic of Holotome E. It is characterized by the congressional interactions of a complete system, i.e. all classes of number are accounted for. This is not the case in classical number theory, which omitted the transpalindromic classes of number. Yet these classes are most responsible for the behavior of number, per se.

Again, the crucial double helix of the nineleven wavecycle is based on two odd numbers, nine and eleven. $9 + 11 = 20$: two odds made an even. Twenty is also the base of the Mayan number system, which operates with the same numerical modules as the ancient Hindu system: all multiples of 108.

The prime/square interface diagram shows the basewave, graphically. The palindromic mechanism is sustained through the four pairs of transpalindromic primes that act as transnumeric relay stations. The tapestry of number is literally woven with the four warps and four woofs, or octave, of the transpalindromic bridge. This bridge links the first and only two-digit palindromic prime number eleven and the first, but not the only, three digit prime number 101. Primes are known to proliferate palindromes in being multiplied by themselves.

The full importance of the basewave continuity observed in the multiples of nintynine is only realized when investigating its involvement in the structure of the holotomes. The

initial holotomes contain only a rational section of a complete cycle--that portion necessary to insure a quality of infinity (the number repeating itself indefinitely).

Holotome A $12 / 99 = 0.121212$

B $24 / 99 = 0.242424$

C $72 / 99 = 0.727272$

D $360 / 99 = 3.636363$

Whereas Holotome E is 45 more than 25×99 , and 54 less than 26×99 , ($45 + 54 = 99$), or a rational transpalindromic and transholotomic link.

Holtome E: $2520 / 99 = 25.454545$

$25 \times 99 = 2475 + 45 = 2520 + 54 = 2574$ (26×99)

The next holotomes are even multiples of nintynine:

$$27720 / 99 = 280$$

$$360360 / 99 = 3640$$

$$6126120 / 99 = 61880$$

Note also that the preliminary holotomes themselves are either palindromes or cyclic repeating numbers.

(Insert holotomes, cont. Basewave involvement)

The Syndex system of the classification of number takes special note of both the palindromic and transpalindromic nature of number, i.e. the directionality of multi-digit groupings as they determine a local and intrinsic geometry to the sequence.

This mainly geometrical analysis of number concerns itself especially with the character of the index of factorial synchronicity and the specific locations in the continuum at which they occur. It is a study which would be impossible without the aid of a structured graphic medium by which to note the relating numerical events.

Equipped with the archetypal alphabet of number class as a reference guide, Marshall began exploring the relative positions of these identities on serial listings of the natural number chain. The first significant discovery he noted was in regard to the transpalindromic primes, squares, and composites. Not only were they directly related, but the squares were separated by either a palindrome or a minus or plus one palindrome.

(12 and 13 syndex pretzels, insert here)

The transpalindromic composites produced transpalindromic squares and so did the transpalindromic primes. In the two-digit range, there is only a single pair of transpalindromic squares: 144 and 169. Both have transpalindromic roots. In the two-digit range there is but one retroprime square which is number sixteen (16) 61 divided by $16 = 455 \times 9$; $61 + 16 = 77 = 7 \times 11$.

This exceptional example of transpalindromicity is labeled a retroprime square, a class of special numbers. It is preceded by fifteen which is a transpalindromic composite, and followed by seventeen, one of only four pairs of 2-digit transpalindromic prime numbers.

The nineleven cycloflex or exemplary basewave is by nature a palindromic and transpalindromic wavecycle. The palindromic multiples of eleven (11, 22, 33, etc.) and the transpalindromic multiples of nine (9, 18, 27, 36, 45, 54, etc.) synchronize at ninety-nine ($9 \times 11 = 99$). This establishes a base cycle that involves the intermediate numbers between the only two-digit palindromic prime number 11 and the first 3-digit palindromic prime number 101. This basewave then repeats itself indefinitely through the multiples of 99 (99, 198, etc.).

99
198
297
396
495
594
693
792
891
990

(insert poemgraf #101)

The next observation Marshall made was that there are exactly four pairs of transpalindromic primes in the 2-digit range. These four pairs are commonly separated by even multiples of square number nine.

13 17 37 79
+18 +54 +36 +18

31 71 73 97

And added together produce even multiples of prime number eleven, the first palindromic prime:

13 17 37 79
31 71 73 97

4x11 44 8x11 88 10x11 110 16x11 176

These four pairs of transpalindromic primes prove to function as a wave guide for the exemplary nineleven base wave that terminates at one hundred, in between palindromic 99 and palindromic 101. These four pairs, four forward and four reverse, also represent the octave which equates with the exemplary basewave cycle.

(Insert Transpalindromic Prime/Square/Composite Interface)

The Holotomes owe their integrity of continuity and holistic discontinuity (circular unity) to the structural polarity of this cyclooscillating and octave-containing basewave. Each holotome is itself a totally symmetrical retrograde mathematical entity of four progressively additive, then four progressively subtractive event octaves which contain a "one half 99" turnaround point.

The mandalogs clearly show this turnaround at 49.5, but in light of our general theory we must conjecture why this is so, and it still remains somewhat obscured in our thinking. If nature works in rational whole number increments, how do we account for the fact that the 9/11 turnaround is at 49.5? Fuller thought it was at 50 perhaps because of his prejudice toward fractions. Since the graphics clearly show otherwise, how do we reconcile this with synergetics? We know it is 99 divided by 2, yet the verbal "excuse" for the fraction constitutes a "hitch in the giddyup" of rational whole number increments as displayed by the octave wavecycle itself. The hitch seems to be the exception to the rule.

CONCLUSIONS

The Goldback Postulate alleges that *'every even number is the sum of two primes.'* The case has not yet been reported where this does not hold true. Even though this postulate is unprovable in the sense that all even numbers can't be checked out, it may be provable through a true understanding of how the sequence of number operates.

No even number may be a prime because of the prior occurrence of number 2, which acts as a divisor for all even numbers. The first three odd numbers are primes because no number preceding them has occurred that could act as a divisor. Number 9 is the first odd number that is not a prime, because of the prior occurrence of number 3.

Therefore, the occurrence of the first odd number as a composite is the result of the previous occurrence of an odd number that had no preceding idvisors except unity, which by definition is indivisible. So, the composite nature of 9 is causally determined in that 9 would have been a prime like all previous odd numbers, but for the prior occurrence of number 3.

From this it may be postulated that all even numbers will be composites, and all odd numbers are potentially primes unless some previous odd number has occurred that acts as a factor, rendering them composites.

This is also a way of saying that every odd number that is not a prime is the product of at least one previous prime and one previous composite, ($3 + 6 = 9$).

But the serial equitability of the progressively divisible number chain produces a surplus of combinations to produce primes from even numbers. In fact, as numbers progress composites will occur that accomodate multiple sets of primes and visa versa. Does this not render the Goldbach Postulate only a probability?

The assumption that all odd numbers would be primes if no previous number had occurred that would act as a divisible factor perfectly fits the casse. If the prior number

had not occurred, or could be stricken out, as in the case of number three, 9 would be a prime number, but since three is three and not something else, 9 is a composite.

The fact that nine is also a square number tells us also that the generation of squares, cubes, etc. is also the result of the occurrence of previous odd numbers, as two odds make an even and two of the same numbers multiply into a square number.

Continuity is a provisional term that requires a context describing a series of entity events that connect or disconnect to or from each other.

The primes have always been regarded as a single class with no breakdown into subclasses, no different kinds of primes.

Secondly, the primes have been viewed apart from the composites, thereby ignoring any relationships that they certainly must share with the other classes of number.

The first indications that other classes of primes exist was found in the nature of square numbers which range from 2 to 20 with one exception: none differ from each other by 16, reflecting our exceptional 2-digit prime/square reversal.

The first three digits--1, 2, and 3--are generally regarded as primes, but the initial members are in a class by themselves. One is not even a number, in the serial sense. It doesn't multiply like real numbers do. Two is also not a number, but is the source of the doubling of unity--duality. 1×2 is 2×1 . It is the source of duality, evenness or balanced symmetry, and essentially static state. Two is the symmetry aspect of the one continuum.

Three is also not a number, but the source of imbalance and asymmetry, a source of dynamic flow. It represents the unitary aspect of the bipolar continuum. The source of oddity or difference with these three qualities produces number four, the first real number or the idea of quantity/quality and dimensionality of the tetrahedron.

"This intellectual step from two to three is a retrograde one, a reflection leading from two back to the primal one," according to von Franz. *"In principle this procedure can be repeated with all subsequent numbers. The retrograde counting step leading from the number three to four has even been made historically famous by Maria Prophetessa's alchemical axiom."* (see Jung's Transformative Process, SYNDEX I). It means that the number three, taken as a unity related back to the primal one, becomes the fourth. The four is understood not so much to have 'originated' progressively, but to have retrospectively existed from the very beginning.

Even and odd are established in the ideas of two and three. They are essentially spatial or geometrical ideas relating to shape and form. They are the prototypes that establish the classes of number yet to come.

All even numbers are non-primes because they are matched pairs or symmetrical sets of two.

All odd numbers are potentially primes, being uneven non-symmetrical amounts. The first odd number to become a composite is nine. It is not a prime because of the initial

occurrence of 3, which acts as a factor making 9 geometrically symmetrical. Two odds make an even. 9 is axially odd, but radially even.

The SYNDEX description of number behavior employs the overview of the cycloflex. It represents the reality of function that is both cyclic and oscillatory, i.e. both rotational and reciprocating.

In describing number behavior and dynamics, it becomes necessary to show the interaction existing between palindromic numbers and transpalindromic numbers--an interaction that is in essence a cyclic behavior.

The retrograde functions progress to a point and then reverse in octave cycles of four forward and four backward number events. This is a wave-cycle or cycloflex.

Continuity in the description of the exemplary basewave cannot mean in the sense of something uninterrupted because it must be curtailed on the upper limit of the Holotome for the sake of holistic unity.

Continuity has given trouble to the number theorist because of the mind's insistence that any specific integer is an isolated idea entity and cannot be effected by another integer, several or even many times removed. But this is, in reality, the case when number 9 is not a prime because of the usurpation of its "primeness" by 3.

This transinteger dynamic is a passive dynamic. It happens as acausal determinate which means the retrograde loops on the SYNDEX number maps are left to show the truth.

The number reversals that purport to carry the exemplary wave are gestures of quasi-disconnective continuity because the relations must be shown that we may see how numbers interact as they flow towards some "nothing" called infinity.

The prior reference to approach of holistic continuity at the end of a Holotome is the final non-event of such a specific system. The octave is best deactivated at these discrete points. It is predominantly the Holotomes that clarify the distribution of prime numbers, for the primes are symmetrically arrayed within the context of each holotome.

The radial symmetry of the holotomes is, in itself, the geometric proof of numerical coherency. That each subsequent holotome admits one, and only one, additional divisor establishes a rational medium between prime numbers and the sequence of specific compositry.

Though the structure of the basseten continuum is a highly complex order, there are graphic methods by which the more important aspects of that order may be appreciably simplified.

For example, there are very rare, often unique examples, of certain classes of number that occur seldom or even just once in the two-digit numbers. It was through the discovery of these rare or noble examples that the exemplary basewave cycle was discovered. Once that cycle was isolated it was a simple matter to extrapolate into the higher orders to

secure the multiple digit cousins of these noble examples for comparisons to confirm the sustained functions of cycles being investigated.

A basewave was long ago suspected by the classical number theorists, but its elusive nature was due to the fact that it was not a singular wave form but a compound variety. A wave composed of the mutual interaction of square number nine and prime number eleven, whose essential palindromic nature is connected with the transpalindromic aspects of the total numeric profile.

The synchrographs act as maps by which we may follow the progress of this exemplary wave cycle. It is a feature that would not in any way be apparent without such a systematic graphic mechanism.

The nineleven wave is further caged by such features of the continuum as the lone pair of 4-digit transpalindromic squares--those being the square of 33 and 99: 1089 and 9801. These two interreflecting squares neatly bracket an octave sequence of four forward and four reverse multiples of the first square which significantly includes a center or nave number which is a palindrome which results from two 2-digit palindromes.

By and large, it is predominantly the holotomes that clarify the distribution of prime numbers because the primes are symmetrically arrayed within the context of each holotome. And the number of primes in each holotome is determined by the total modular amount of the previous holotome. For example, Holotome E or #2520 contains 367 primes or just seven more than Holotome D which is #360 ($360 \times 7 = 2520$), and Holotome D contains 72 primes where #72 is the modular sum of the previous holotome.

The fundamental intent of the initial idea was to create a context which would geometrically paraphrase the elements of numerical progression in a graphic system that involves the primary elements of plane or two dimensional geometry. The two axes provide a base for symmetry as a reference to systematically involve the cyclic and wave functions of the numeric continuum.

MYSTICISM IN JUDAISM AND THE KABBALAH

"But if you listen with your heart to one famous quotation, I am sure that all your doubts as to whether you should study the Kabbalah will vanish without a trace. This question is a bitter and a fair one, asked by all born on earth: What is the meaning of life?"

--Rabbi Yehudah Ashlag, Introduction to Talmud Eser Sfirot

All things of which this world consists, spirits as well as bodies, will return to their principal, the root from which they proceeded.

--Zohar (The Book of Splendour)

*Men find their happiness in religion and the world,
Deliver me from both; thus in my happiness,
To be enamoured of Thee, is my desire vain;
Drop then the veil, and let me look.*

--Sarmad, Jewish Mystic

Throughout the ages, there has been a branch of knowledge, which focuses on the domain of the spirit. Spiritual existence is that which is never lost. The common core of most religions is devotional mysticism, based on the Sound Current, Word, or Holy Name. It is rooted in meditation (inner journeys) whether it appears in Judaism, Sufism, Tantra, Taoism, etc. While science explores outer phenomena, the field of mysticism explores the inner realms, which can be perceived only by our soul. A study of the different major religions reveals that each has an esoteric core. The essence of each religion is the union of the soul with God.

Mysticism is the study of how we can achieve this divine communion with the Lord. Martin Buber explained that the ecstasy is not a sudden absorption into the Universal Soul, but a steady progress forward, progress which is constant and well-controlled. God pervades the entire creation. The soul of man is a spark of Divinity and our principle duty is to take the soul back to its source. This can be done by the power of Shekhina, the equivalent of the Name or Word, which is described as the Emanation and Glory of God whose presence and power sustain every creature. The Masters or Zaddiks preached the banishing of all worldly desires and merging them in a single desire to meet God.

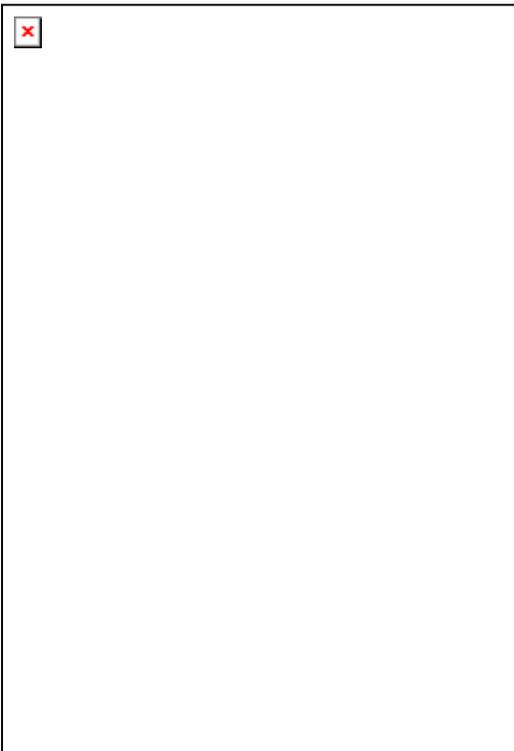
The purpose of this introductory essay is to familiarize us with some important aspects of the mystical tradition of Judaism. The Jews over the ages have tended to discourage the practice of magic or practical qabalah, choosing instead to keep their emphasis on love. Both Talmudic and Kabbalistic schools emphasize the need of mentors or Masters, well-familiar with the experiential territory. Nevertheless, an extremely useful generic map of the in-scape of mysticism was developed in Jewish Kabbalah, called the Tree of Life. Mysticism considers the human life as the fruit of the Tree of Life, and encourages meditation to unite with God on the path of Return

while still living. It describes each of the domains of the inner planes on the soul's journey back to reunion with God in its true Home, Kether. Kabbalah is the study of the system of our spiritual roots which emanate from Above. There is none else but the Creator.

According to contemporary Kabbalists of B'nai Baruch, "The Kabbalah teaches the cause effect connection of our spiritual sources. Both mankind as a whole and each and every individual has to attain his highest point of understand the goal and the program of the creation in all of its fullness. In each generation there were people who by constant self work reached a certain spiritual level. In other words, while walking up the ladder, they managed to reach the top. In the spiritual world the main factor of discovery and comprehension is not time but rather purity of spirit, thought and desire." The part of Kabbalah that deals with the study of form without matter is totally based on experimental control and therefore can be verified and tested!"

The kabbalistic imperative is to transcend the bounds of the ego. "How can a beginner master this science when he cannot even properly understand his teacher? The answer is very simple It is only possible when we spiritually lift ourselves up above this world. This is possible only if we rid ourselves of all of the traces of material egoism and accept the spiritual values as the only ones. Only the longing and the passion for the spiritual in our world, is the key for the higher world. A person's main objective is to elevate the importance of the Creator in his own eyes, i.e. to acquire faith in His greatness and might, since this is his only possibility to escape from the prison of personal egoism, and into the higher worlds. The method of breaking free from the slavery of egoism is found in the Kabbalah. The worst egotism is arrogance and conceit. Only those who engage in the study of Kabbalah for self-improvement will benefit."

These kabbalists say we must reach spiritual levels in order not to be reincarnated. We must perfect the parts of the soul, *Nefesh-Ruach-Neshama-Chaya-Yechida*, physical, emotional, mental and spiritual.



Historical researches conducted in ancient Egypt have revealed that "what was known as the worship of the Word" was quite extensively prevalent during the times of the Pharaohs some 3,000 years ago. Moses, who organized a successful revolt of Jewish slave sin that country and led them on to the establishment of an independent state of their own, was brought up in the court of a Pharaoh, and seems to have been quite conversant with the worship of the Word.

(Excerpts from *The Holy Name*, Miriam Caravella, 1989, RS Satsang Beas)

According to the Bible, the prophet Moses communed with God "mouth to mouth."

This implies a personal experience of the Divine -- a mystic experience. At God's behest, Moses brought the Torah -- the divine "teaching" or "revelation" -- to the children of Israel. Thus the early Israelites also had a direct mystical experience of God. Many of the patriarchs and prophets whose lives and teachings are given in the Bible are described as mystics who heard God's "voice" and "Word," who relied on His "Name," and otherwise had direct communion with Him. According to J. Abelson, an early twentieth-century scholar of Jewish mysticism, "Jewish mysticism is as old as the Old Testament...The Old Testament scintillates with sublime examples of men whose communion with God was a thing of intense reality to them."

It is important to remember that the Hebrew Bible as we know it today is not an exact and accurate rendering of the words of the mystics and prophets. Contemporary scholars, tracing the styles of several scribes in its narratives, have concluded that the Hebrew Bible is probably the work of several authors of different periods, with differing purposes and levels of spiritual attainment. Throughout history, scribes and scholars of all religions have subtly altered the teachings of the mystics, albeit unintentionally. Because they were not of the same spiritual level as the mystics whose works they were attempting to record, and because they were often writing from memory, these scribes may have unwittingly misinterpreted or obscured the mystics' teachings. In many places in the Bible, therefore, the mystical aspects or implications of the prophets' message may actually have been lost.

Mystics often couched their teachings in parables and symbols, so that the deeper meaning of their words would be hidden to all but their closest disciples. In some instances, for example, where the prophets appear to be speaking about political or social issues, they may have also been speaking on a mystical or esoteric level, with the political or social situation used as an allegory or symbol.

During the period of the prophets, the priestly classes were the primary authority in Judaism. The priests performed specific religious functions in the temple in Jerusalem, and in daily Jewish life as well. With the destruction by the Romans of the second temple in the year 70 C.E., the role of the priestly classes began to change and their power started diminishing. The institution of the "rabbi" (literally, "teacher," or "master"), as the primary authority in Judaism, arose during the first and second centuries C.E., becoming greatly strengthened during the period of Islamic rule, and continuing until today.

The discovery of the scrolls at Qumran and other long-hidden early texts reveals that, from the second century B.C.E. and possibly even earlier, there were several ascetic and possibly mystical sects coexisting with the mainstream of organized priestly Judaism. It is believed that John the Baptist, and probably even Jesus of Nazareth, came from one of these sects, the Essenes.

The teachings of Philo Judaeus, the first-century Jewish mystic of Alexandria, Egypt, are of great interest from the mystical point of view. Philo wrote about God as the Word or Logos. For many centuries, Philo had more influence on Christianity than on Judaism, because until the 1700s his writings were hardly known to Jewish scholars and theologians. In the same spirit as Philo, the commentators Onkelos and Jonathan ben Uzziel, in their Aramaic translations of the Hebrew Bible, rendered the name of God Jehovah (wherever it appears) as the *memra*, or "utterance," clearly a reference to the creative Word, or Sound, of God.

After the Bible, the second great written work in Jewish history is the Talmud, which represents almost one thousand years of rabbinic thought. Its foundation was laid during the middle of the fourth century B.C.E. in the community of the returned exiles from Babylonia. The Talmud exists in two versions -- one Palestinian and the other Babylonian (both edited during the fifth century C.E.) -- reflecting the thinking of the two academies of rabbis. Most of the Talmud is concerned with law, but it also contains a good deal of moralistic, legendary, and mystical material.

The "Ethics of the Fathers," a collection of ethical and moral sayings of the rabbis of the talmudic period, contains some highly mystical material as well. However, on the whole, from the period of the Talmud onward, most rabbis were suspicious of mysticism. Rabbi Ben Zion Bokser explains:

Some teachers of the Talmud cultivated the mystical life...[but] while recording the views of those teachers who sought to cultivate mystical interest, the Talmud indicates that the religious authorities of the time tried to discourage this tendency. . . In some instances mystical pursuits became intertwined with magic, which was, no doubt, an additional factor that inspired the effort to discourage it.

Contemporary rabbi David Blumenthal explains that during the talmudic period, some of the rabbinic tradition rubbed off on Jewish mysticism, hence the intellectualism or "bookishness" of Jewish mystic literature. He says that the general concept of Judaism that we have today stems from rabbinic Judaism. From then on, those rabbis who were devoted to the mystic life tend to be secretive about their teachings and practice, using esoteric symbols and stories that could be understood only by the "initiated." But still, Blumenthal explains, during the course of Jewish history there was often a give-and-take between the rationalistic rabbis and the mystics; and just as mysticism tended to be expressed in intellectual terms, often the scholarship of the rationalists became infused with a suppressed mystic yearning. "There is hardly a symbol, act, or belief in the rabbinic tradition which was not touched, and transformed by the mystical tradition."

The mystical side of Judaism during the talmudic period and continuing into the Middle Ages is represented for the most part in the *hekalot* literature. *Hekalot* literally means "palaces," or "halls." These works describe the meditation practices of Jewish mystic who were attempting to take the mystic journey through the inner regions or palaces on the merkavah, "chariot," of light and sound. The chariot metaphor is taken from the mystic experiences of Elijah and Ezekiel in the bible. Most of the works describing the merkavah journey were written between the first century B.C.E. and the tenth century C.E. and are called the greater and lesser *hekalot*.

Sometime between the third and sixth centuries C.E. appeared one of the most powerful works of Jewish mysticism to survive till this day. Only two thousand words long, the *Sefer Yetzirah* ("Book of Formation") is an attempt to describe the mystery and structure of creation by means of numbers, and as such it is similar to the teachings of Pythagoras. With a minimum of words, it describes the creation as series of emanations from the one divine Name, Word, or utterance.

The concept of creation by emanation is also found in the literature of the medieval Jewish mystics, many of whom were part of the Sufi mystic tradition in Egypt and Spain. Sufism was a mystic teaching which appeared in the Islamic world from approximately the tenth century. The focus of Sufi philosophy was God-realization through mystic practice and devotion rather than through intellectual pursuit or performance of ritual. The Sufis emphasized the need to control the mind and senses and eliminate the ego in order to travel on the spiritual path.

Jewish Sufi manuscripts discovered during the late nineteenth century in the Cairo Genizah (a hidden attic in an ancient synagogue) have shed great light on the close relationship between Jewish and Muslim mystics of medieval times. From the eleventh to fourteenth centuries, Jewish mystics translated and freely quoted from Sufi mystical writings, and some pursued the spiritual path under the guidance of Sufi masters. Similarly, during almost the same period, Jewish mystics in Persia and Turkey shared a devotional spirit with the Muslim mystics of their time. Many read Hebrew translations of the works of Rumi and Sa'adi.

The Jewish mystics in the Sufi tradition were sometimes called hasidim ("devotees," "pious ones"). Although this movement, and the Hasidei Ashkenaz movement which arose in Germany during the thirteenth century, were not connected historically with what later became known as Hasidism -- the ecstatic religious movement which began in eighteenth century Poland -- they foreshadowed many of its elements, particularly the emphasis on devotion, spiritual inwardness, and personal experience of God.

Bahya ibn Paquda of eleventh-century Spain was a mystic in the Sufi tradition. His book *Hovot ha-Levavot*, "Duties of the Hearts," deals with the life of the true "servant," the devotee yearning for the mystical life. Solomon ibn Gebirol, also known as Avicbron, was Bahya's older contemporary; in his mystical work *Mekor Haym*, "Fountain of Life," he described the creation as a series of emanation from the primal source of light. This teaching was echoed by many later Jewish mystics,

especially the Kabbalists, and parallels the descriptions of the creation given by mystics from many traditions.

Moses Maimonides, author of the philosophic masterpiece *The Guide for the Perplexed*, lived in Cairo during the twelfth century. Noted as a philosopher, physician, and rationalist, Maimonides was also a mystic who stressed the possibility of direct spiritual experience through mystic practice. His son Abraham and grandson Obadyah were mystics in the Sufi tradition, whose works have recently been rediscovered and published.

The most renowned aspect of Jewish mysticism, which has almost taken on life as a religious movement and influence in itself, is the Kabbalah, which literally means "receiving" or "tradition." The development of Jewish Sufism may have prepared the way for acceptance and growth of the Kabbalah. The term Kabbalah is normally used to refer to a large number of complex, esoteric works dating from the thirteenth century which draw on the Bible, the Talmud, and other texts. Its precursors were the *Sefer Yetzirah*, the works of Ibn Gebirol, and the twelfth-century work, the *Sefer ha-Bahir* ("Book of Brilliance").

But when most contemporary Jews think of the Kabbalah, they generally have in mind the *Zohar* ("Radiance" or "Shining"), the longest and most influential work of the Kabbalah. Although it had been widely believed that the *Zohar* was written during the more ancient talmudic period by Rabbi Simeon bar Yohai, recent scholarship has shown that, at the earliest, it was written in the late thirteenth century by Moses de Leon of Spain. At that time, it was not uncommon for authors of religious texts to claim that they had discovered manuscripts written in earlier periods. Such works are called pseudo-epigraphic. They seek the authenticity and credibility that come from authorship by an ancient, respected master.

However, although De Leon may have been the actual writer of the *Zohar*, many scholars and students of mysticism feel that he was indeed compiling, recording, and synthesizing mystical traditions dating from earlier times. Clearly, many of the *Zohar's* underlying principles coincide with universal mystic teachings -- for instance, the theory of creation as an emanation from the original divine light; the concept of spiritual, astral, and physical levels of creation; reincarnation, etc. But the Jewish mystics of the *Zohar* gave expression to their mystic experiences by linking them to biblical references and couching them in terms acceptable to Jewish tradition. Also enmeshed in the *Zohar* are accretions of legend, ritual, and superstition that reflect the influences of the many cultures in which Jewish mystics and seekers lived after their exile from Judea.

The Kabbalists maintained that God's real Torah, or teaching, is the *Zohar*, and that what we commonly know as the Torah is a hint to the *Zohar's* esoteric teachings. They felt that God gave the *Zohar* and other kabbalistic works for those initiated into "the inner mysteries," and that the Bible exists as a hint to those esoteric teachings. They often referred to the Kabbalah as "the hidden science."

Most of the works grouped in the Kabbalah teach a theosophy or cosmogony concerning the nature of God and structure of the universe. In contrast to the Sufi teaching, they do not generally urge a devotional approach in pursuing direct experience of and attachment to the Divine. In this sense, Kabbalah becomes what the Indians call gyana yoga, "the yoga of knowledge," where the Sufi or hasidic tradition is more like bhakti yoga, "the yoga of devotion." As Bokser explained, the Kabbalah "proceeds through an intricate web of esoteric symbols, and its offering is primarily a gnosis, an esoteric knowledge which in itself is said to yield man the highest rewards of divine commendation."

The Kabbalah was an influence not only on the Jew; Christian scholars looked into its symbols and allegories and found symbols of Jesus and his teachings. The Kabbalah is also the focus of Freemasonry and other secret societies, which have as their goal the discovery of mystical knowledge they believe to have been handed down through the generation since the time of Adam [the 'Lost Word' in Masonry]. According to the Freemasons, the *Zohar* itself is the vehicle of the most profound religious mysteries, reveal only orally in previous ages, to which hints exist in secret manuscripts.

Abraham Abulafia, a mystic and student of Kabbalah of thirteenth-century Spain and Italy, taught his followers an actual system of meditation and concentration based on combinations and permutations of letters and words, with the goal of entering the inner spiritual realms. Abulafia was excommunicated as a heretic by the orthodox Jewish authorities of his time, and many of his manuscripts were lost for several centuries. Today modern researchers have been successfully unearthing and studying them, bring to light a lost chapter in Jewish mystical history.

Although some Jewish mystics claim success in following the complicated practices of letter and word combinations and permutations, as taught by Abulafia and other Kabbalists, there are many more stories relating the dangers and pitfalls experienced within by practitioners. Despite the dangers, however, some Jewish mystics continued to teach these practices openly until the sixteenth century, when it became more expedient to hide their use; and by the eighteenth century they had almost died out. Since the 1970s in the United States, however, with the resurgence of interest in Jewish mysticism and Kabbalah, a number of seekers have begun attempting these techniques once again, using old manuscripts as models and guides.

By the sixteenth and seventeenth centuries, many Kabbalists had gathered in Safed, Palestine. Rabbi Isaac Luria, who was known as *ha-Ari* ("the Lion"), was the center of this circle of Safed mystics. Also known as "the divine Rabbi Isaac," he was said to possess "the holy spirit" and to have been given "the revelation of Elijah," Luria appears to have transformed the doctrine of emanation described in the *Zohar* into a more complex system and also taught name and letter combination techniques for concentration.

During the seventeenth century, a Jewish mystic by the name of Sarmad settled in India. Born into a rabbinical family of Kashan, Persia, he came to India as a trader

and experienced a spiritual transformation. Sarmad is still revered throughout India, yet little is known about the details of his life, and western Judaism is largely unaware of him. From his teachings, however, we can see that Sarmad was a true mystic of the highest order, a *sauna* who transcended the outer formalities of religion and found the Lord within himself. He sang of union with the Name, the inner divine music. Some sources say he converted to Islam and then to Hinduism, but if one reads his rubaiyats carefully, it is clear that although he examined all religions, he rejected their external limitations, embracing the inner teaching which he recognized as only One. He boldly sang of his unconventional love for the Lord and taught others to do the same. Ultimately, in 1959/60 he was beheaded as a heretic by Aurangzeb, Mogul emperor of India.

The most recent flourishing of mysticism in Judaism is Hasidism, which appeared in Poland at the end of the eighteenth century, a time when Jews were being persecuted at the hands of the authorities. There was deep yearning for God to reveal himself, for a religious renewal which would lift the soul out of the sufferings of the world. Hasidism fulfilled this need and was the movement which quickly transformed Judaism. During this time, many spiritual teachers appeared, who were called *rebbe*s or *zaddiks* ("masters") by their disciples.

The first hasidic master, the Ba'al Shem Tov (literally, "Master of the Good Name") was a simple, uneducated man -- the antithesis of the traditional rabbi, who was generally a scholar and an intellectual. The Ba'al Shem Tov communed with God internally and preferred the stillness of nature to the synagogue. It is said that he was able to speak to and understand the birds and animals. He spoke of seeing the divine Light and taught his followers the importance of *devekut*, "attachment" or cleaving to God at every moment of their lives. There were many other hasidic masters, like Rabbi Nahman of Batslav and Dov Baer, the Maggid ("spiritual channel") of Mezherich -- spiritual teachers whose legends and parables are quoted even in present times.

At first the Hasidim were considered as heretics by mainstream Jewish rabbis and the community at large; some were even excommunicated and their writings put in *herem*, "quarantine," and reading them was forbidden. Later, however, as the hasidic *rebbe*s gathered more and more adherents, their teachings spread and gained strength amongst the people. Nowadays, the descendants of the Hasidim still follow the *rebbe*s of their respective lines, but the teachings have for the most part become another form of orthodox ritual and study of scripture, though sometimes infused with an intensity, joy, and fervor that reflect their true hasidic origin.

At the end of the nineteenth century there was a decline in mystical seeking in Judaism, as the Haskalah, the "enlightenment" movement, took over. All over the world, science became the new god, and people rejected religion -- especially mysticism -- as superstition. However, in certain parts of Europe there were small groups of mystics who continued to study the Kabbalah, while some hasidic lines maintained their integrity, if not always the purity of their original purpose.

And still today, there are mystic seekers practicing within the boundaries of traditional Judaism. During twentieth century, Rabbi Abraham Isaac Kook, Martin Buber, Rabbi Abraham Joshua Heschel, Rabbi Aryeh Kaplan, and others have emphasized once again the need for inwardness in spiritual devotion. Since the 1970s, there has been a resurgence in the study of Jewish mystics of the past, and some seekers have attempted to follow their meditational practices. This has led to examination of self and tradition. As Rabbi Ben Zion Bokser wrote,

The mystical spirit that craves for a direct encounter with God, for a fresh illumination of soul, is not content with pondering a tradition, even a mystical tradition. To gain this boon the mystic must travel the lone road of meditation, of struggling with his own opaque material self, to break the barrier that separates him from God and to enter directly into contact with the divine mystery.

Over the ages, mystics have used many metaphors to convey the state of the soul's longing to return to its source. Rabbi Isaac Luria wrote of the soul as a spark of the divine light, from which it had separated at the time of creation and with which it longs to be reunited. He spoke of the lower self as a *kelipah*, a "shell" or "husk," that encases our souls, our holy spark. Although we are truly spiritual, our imprisonment in these shells prevents us from knowing and experiencing our spiritual essence. The purpose of human life is to break the shells and liberate the sparks, freeing them to reunite with the original, eternal light. This state of restoration was called *tikkun* -- "redemption" or "perfection."

The spiritual Master, the mystic, comes to this world to teach a method of freeing the soul -- the spark -- from the shell of mind and illusion, so it can merge back into God. This is the real unification, or yoga.

Some Kabbalists taught that each of the realms of Atziluth, Briah, Yetzirah, and Assiah was made of respectively higher and lower intensities of all ten sefirot. They envisioned the ten sefira of the world of Assiah as existing in the human body itself, with each sefirah corresponding to a particular function or energy center of the body. The Kabbalists used the image of the Tree of Life to describe the relationship between the sefirot when manifested in the human body. In various Jewish meditational practices, the tree serves as a diagram of the various steps or stations a practitioner needs to traverse in the course of his or her inner mystic journey to spiritual union. Similarly, Indian yogis and mystics describe a series of chakras or energy center in the body, upon which they meditate during certain practices of yoga. These chakras have a direct correspondence to the sefirot of the Tree of Life in the realm of Assiah (the Physical Plane).

All saints teach that the creation came from the Word, the holy Name of God, the Shabd -- the divine energy of life, the divine music, the audible life stream -- which activates the creation and manifests as sound and light, emanating from En-Sof -- the realm of pure Spirit.

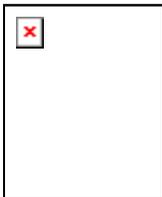
The goal of spiritual practice is to reverse this process of creation on an individual level -- of the soul's separation from the divine source and imprisonment in matter. Jewish mystics call it tikkun, "fixing," but Indian mystics simply describe it as the merging of the soul into its divine source, so that it never again has to experience separation and imprisonment in the material creation.

The purpose of the creation cannot be understood at the level of intellect. The causal, astral and physical planes are composed of spirit mixed with varying degrees of matter, and thus are subject to change and disintegration. They are not eternal or true; love exists in limited quantities there, but negativity is also present. In Judaism, man is said to have two inclination or impulses: the good inclination (soul) and the evil inclination (mind and body/desire nature). What is good or evil can be distinguished easily, for one either moves closer to or further away from the Lord.

Since the Lord, the pure spiritual being, is light, to obscure that light results in what we call evil. Though in many respects evil is only a lesser good and there is no such things as evil per se...it is but a show, a lesser light. Whatever pulls us away from the Lord and realizing Him within us is evil; whatever leads us toward Him is good. Just as there is one Lord for everyone, so the soul which is His essence, is one and the same in everyone. Though our bodies may differ, the spiritual essence that activates it and gives us life is the same. We must get in touch with the divine Name He has placed within us all.

When you examine the grades closely, you find that Thought, Understanding, Voice, Utterance are all one and the same, and there is separation between them, and this is what is meant by the words: "The Lord is one and His Name is One." --(Zohar).

In the scriptures of all religions, prophets and mystics have used the terms Name and Word to describe the divine power, the spiritual truth, the manifestation of God in the creation -- sound and light within.



THE DIAMOND BODY:

A SOLID STATE MANDALA

A MODERN ALCHEMICAL VIEW OF THE PHILOSOPHER'S STONE

by Richard and Iona Miller (aka Philo Stone), ©1981

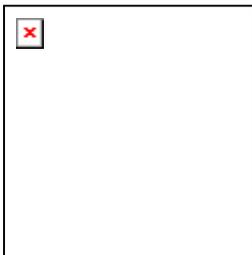
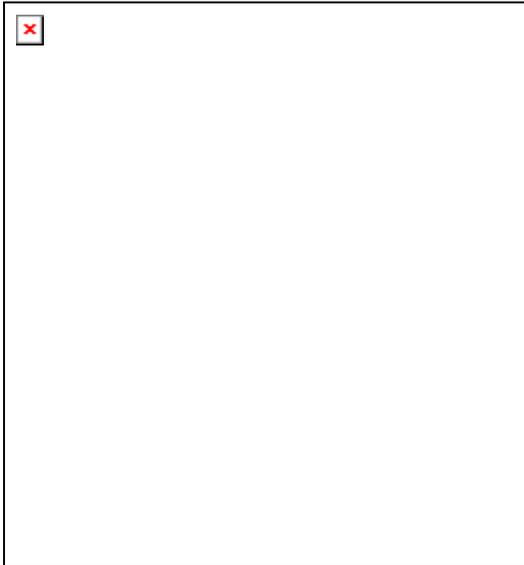


TABLE OF CONTENTS

PREFACE
FOREWARD
INTRODUCTION

I. PHILOSOPHY

- A. The Practice of Alchemy.
- B. The Philosophical Concept of the Immortal Body.
- C. The Psychological Meaning of the Philosopher's Stone.

II. ORIENTATION

- A. Basics of Solid State Physics.
- B. The Geometry of the Vector Equilibrium Matrix.
- C. The Common Ground Between Psyche and Matter.

III. THE DIAMOND BODY EXERCISE

- A. The Diamond Body Visualization.
- B. Hermetic Philosophy and the Diamond Body.
- C. The Diamond Body in Qabalah and Alchemy:
 - 1. Sephir-Yetzirah: The Book of Formation.
 - 2. Merkabah Mysticism, Old and New.
 - 3. Information Coding and Access-States.
 - 4. The Hebrew Alphabet.
 - 5. The Self(Aleph/Tau);The Nexus of the Diamond Body.
 - 6. Meditational Use: Circulatio.
- D. Entropy and Reversible Processes:
 - 1. Thermodynamic Laws.
 - 2. Order and Chaos.
 - 3. Complexes as Repair Functions.
 - 4. Reversible Processes.
 - 5. The Alchemy of Entropy

IV. CONTEMPORARY APPLICATIONS

- A. Archetypal Topologies (Tree of Life, Diamond Body, VEM).
- B. Meditation and Resonance Effects.
- C. Magical Use of Standing Waves.
- D. The Magickal Altar: The Double Cube.
- E. DAATH: Threshold of the World of Form.

V. CONCLUSIONS: THE QUINTESSENCE

- A. Neural Feedback and Brainwave Training.
- B. Video Feedback: Self-realization through Yogatronics.
- C. The Diamond Body: A Video-Yantra for Self-Realization.

VI. APPENDICES

- A. Vector Equilibrium Lattice Constants.
- B. Transliteration: Hebrew to English, (with numerical values).
- C. Graphic Depictions of the Merkabah, or Throne Chariot of God.
- D. The Isotropic Vector Matrix.

BIBLIOGRAPHY

PREFACE

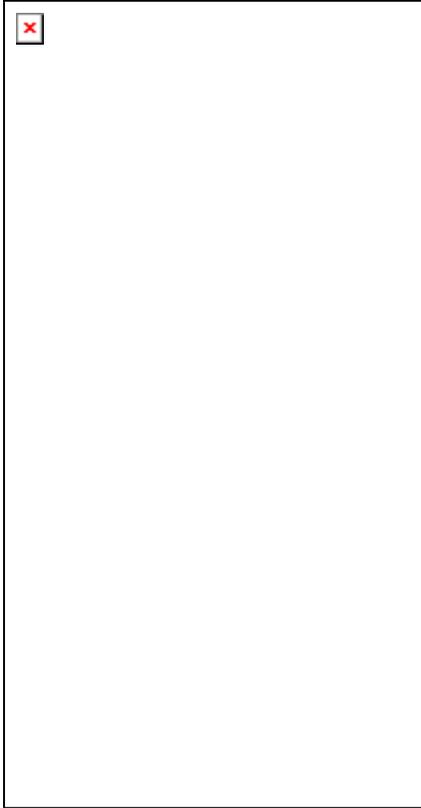
...the first Sefirah is Keter, the Crown, the beginning, the primal void. In the beginning He created a point, which became Thought, where all the figures were drawn. He was and was not, encompassed in the name, having as yet no name other than the desire to be called by a name. . . . He traced signs in the air; a dark light leapt from His most secret depth, like a colorless mist that gives form to formlessness, and the flames streamed down to illuminate the lower Sefirot, and down, down to the Kingdom.

...In the second Sefirah the dark aleph changes into the luminous aleph. From the Dark Point spring the letters of the Torah. The consonants are the body, the vowels the breath, and together they accompany the worshipper as he chants. When the chant moves, the consonants are the body, the vowels the breath, and together they accompany the worshipper as he chants. When the chant moves, the consonants and vowels move with it, and from them rises Hokmah--wisdom, knowledge, the primordial thought that contains, as in a box, everything, all will unfold in creation. Hokmah holds the essence of all that will emanate from it.

Binah is the palace Hokmah builds as He spreads out from the primordial point. If Hokmah is the source, Binah is the river that flows from it, separating into its various branches until they all empty into the great sea of the last Sefirah. But in Binah all forms are already formed.

...Hesed is not only the Sefirah of grace and love...it is also the moment of expansion of the divine substance, which spreads out to the edge of infinity. It is the care of the living for the dead, but someone also must have observed that it is the care of the dead for the living.

--Umberto Eco, Foucault's Pendulum



THE TREE OF LIFE

Iona Miller, ©1980

According to scenarios imagined by modern theorists, "the universe originated in a cosmic fluctuation, in which pure energy condensed into matter. Sometime around 10⁻¹⁴ second after time zero, a soup of elementary particles and antiparticles condensed out of this energized void, like water droplets condensing out of humid air as the temperature falls. These particles and antiparticles then began annihilating, so the theory goes, until only one in a billion was left, and that happened to be matter rather than antimatter. Perhaps the universe began with this one-part-in-a-billion excess of matter over antimatter, and what's left over from the furious annihilation is our universe..."

FOREWORD

THE DIAMOND BODY is a contemporary meditation technique from secret practices with over 4,000 years of mystical tradition. The oldest-known practice of this technique of meditation was known as Merkabah Mysticism, allegedly developed by the Jewish Patriarch, Abraham. It is a regeneration meditation for immortality.

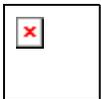
THE DIAMOND BODY is examined from perspectives in Jungian psychology, from definitions in physics and Jewish mysticism. This is then synthesized into the framework of Magick. There is an inherent spiritual aspect of matter, found in the nature of order and synchronous events. This spiritual aspect is explored through the philosophical concepts known as the Philosopher's Stone

A geometrical image is developed from solid state physics, corresponding to both the Jewish mystical traditions and current concepts in Imaginal psychology. A mathematical model is generated to assist the development of anima consciousness via a visualization exercise of the diamond body. A resonance occurs between specific internal-state functions and the "outside." These resonance relationships are discussed and specific models are given to aid visualization and resonance.

The use of these geometrical forms as Magickal tools offers intriguing possibilities. They allow experimental interaction with archetypes of God-forms. They also grant access to those specific altered states where one experiences the eternal aspect of sacred time: A consciousness of immortality. **THE DIAMOND BODY** as an exercise is a meditation form of the future.

This practice of meditation develops a common ground, uniting psyche with matter. Through the stabilization and equilibrium fostered in the aspirant during mediation sessions, the individual is brought into increased harmony with the environment. More important, a "repair function" is now available, one able to reverse those entropic functions related to libido.

THE DIAMOND BODY is a breakthrough in meditation techniques, something for the 21-Century. Steeped in mystery, the Merkabah Chariot of *Sepher-Yetzirah*, the *BOOK OF FORMATION* is also Ezekiel's vision: the Cube of Space. For the first time, a contemporary description of **THE DIAMOND BODY** is formulated using synergetics, cognitive sciences, physics, and metaphysics. Physical and psychological analogs are offered to reveal the timeless experience available through visualizing the true Philosopher's Stone.



THE DIAMOND BODY TRILOGY

by Richard and Iona Miller (aka Philo Stone)

I. THE DIAMOND BODY:

A Modern Alchemical View of the Philosopher's Stone.

(The Philosophy); Based on the Synergetics work of R. Buckminster Fuller, this work unifies models from solid state physics, Jungian psychology, and cross cultural systems of meditation. The scope of this book combines the ancient past and future in an amazing, contemporary worldview. A revolutionary work in interdepartmental disciplines, spanning the continuum between mathematics and mysticism.

II. ELECTRO-MAGICK:

Self-Realization Through Yogatronics, Video-Graphics and Light-Loops.

(The Theory); This work recounts the R/D creating a hardware and software system for an advanced biofeedback technique implementing a mind/computer interface. The "VIDERU" is designed to allow an individual to alter undesirable habit patterns and lead to greater self-awareness. It is the new video game: Self-Realization or "Re-Creation" of one's Self. A time/space machine for exploring inner/outer realms of the imagination.

III. YOGATRONICS:

Experiments in Perceptual Synergetics.

(The Practice); Experiments conducted in electronic pathworking with the "VIDERU" are summarized and evaluated. Using audio-visual and olfactory inputs and feedback, specific brain wave patterns and neurochemistries are evoked. Potential applications are explored. Future developments in biochip technology (i.e. computerized brain implants made of organic molecules) are discussed.

INTRODUCTION

IO [I/O] is the cry of the lower as OI [O/I] of the higher.

In figures they are 1001, in letters they are Joy.

For when all is equilibrated, when all is beheld without all, there is joy, joy, joy
that is but one facet of a diamond, every other facet whereof is more
joyful than joy itself.

Aleister Crowley, *The Dragon-Flies*

SACRED GEOMETRY:

According to most creation stories, out of primal Nothingness, the All or Everything emerges or emanates forth. Paradoxically, everything seems to come from nothing. How does nothing become something? Energy "crystallizes" into matter in the womb of empty space, a dynamic Void. Mass is simply a form of energy. Even inert objects are full of motion at the atomic and subatomic levels.

The formation process is structured by an underlying, invisible, geometrical lattice. Actually, it is pre-geometric. Because it has no true physical existence, it is metaphysical (beyond physics). This threshold of matter, where nothing becomes something, is of great philosophical interest.

Actually, materialism (a natural philosophy) is a theory of metaphysics. It is metaphysical thinking to consider static matter as a primary reality. In fact, any attempt to describe reality is metaphysical speculation. In its dynamic form matter cannot be separated from energy. Energy is a property of matter, which can be considered potential energy.

The mystic believes in matter, but believes it is more than science has yet discovered. Even before Western science began, mystics believed that mind, consciousness, or spirit is a property of matter. It hardly matters, philosophically, if you consider it as manifesting force or manifesting spirit.

The nature of reality is that matter-energy must be taken together. The theory of relativity conceives of this single substance as a distortion of the structure of space. Physicist Ian Barbour writes that, "*...in quantum theory, separate particles seem to be temporary and partial manifestations of a shifting pattern of waves that combine at one point, dissolve again, and recombine elsewhere; a particle begins to look like a local outcropping of a continuous substratum of vibrational energy.*" That vibrational energy is governed by the laws of probability.

But what subtle forces underlie matter-energy and space-time? All form and power are latent within the void. The *Heart Sutra* tells us that, "*Form is not other than Void, Void is not other than Form.*" This implies that our human form is not other than void, and biophysics shows this to be true. Our physical makeup is largely emptiness.

If we conceive of humans as being most fundamentally electromagnetic entities, instead of chemical beings, we can imagine our finer existence as dynamically interactive wave-fronts in space. Our personal "space" is not utterly empty, but cannot be conceived apart from our matter exhibiting itself in particular ways, i.e. as "waves."

The void state, or primal matrix, is "*cosmic zero*," yet proportionately our most fundamental reality. It is part of the surrealistic quantum realm. It lies within us all, for the relative space between our atoms is astronomical. This is synonymous with the ground state of existence which mystics seek in their meditation, moving beyond mind and *maya*. It is that state of consciousness where outer perceptions cease, and consciousness is free to simply be.

Throughout the centuries, various geometrical forms have been revered as expressions or metaphors of higher spiritual truths. These sacred forms and symbols are a natural part of the collective consciousness which emerges in every generation. We project them outwardly from within our psyche because they are so fundamental to our existence. That apprehension is intuitive. Certain typical forms recur in meditation and ceremonial practice, worldwide.

When something emerges from nothing, it does so via non-Euclidean geometry, coming to occupy space/time. Einstein used non-Euclidean geometry to explain the relativity of time and space as the geometry that is produced by matter or matter by geometry. The perception of the transcendental or metaphysical aspects of geometry is intuitive. There are examples of philosophical geometry or geometrical philosophy from around the world. These traditions are found in India, China, Egypt, and Great Britain, to name a few.

Plato, Archimedes, and the Pythagoreans based much of their philosophical speculation around the nature of geometrical form, suggesting that mathematics and structural forms had ultimate status. Our modern science has never forsaken the tradition of seeking the understanding of forms that provide shape and meaning to physical reality. Euclidean geometry describes the nature of the human scale, but non-Euclidean models the cosmos and microcosm. More and more intricate forms of measurement became the basis of the scientific method. Eventually, this led to modern topology--the study of those properties of geometric figures or solid bodies that remain invariant under certain transformations.

Heisenberg explained that, "*The elementary particles of modern physics can be transformed into each other exactly as in the philosophy of Plato.*" In "sacred topology", the relationships are more than metaphorical. Metaphysical and physical reality coincide. This is abundantly illustrated in R. Buckminster Fuller's geometrical tour de force, *SYNERGETICS I & II*. Fuller demonstrates, via synergetics, that the whole is greater than the sum of its parts, because of the relativity and dynamic tension of forces. In our universe, as more complex systems are built up, new properties appear that were not foreshadowed by the parts alone. These emergent properties include life, conscious awareness, and beauty.

Plato's Academy in Athens had a policy: "You are not allowed to enter here, unless you know geometry." In the dialogue, Meno, Plato describes Socrates teaching geometry to a slave. In true Socratic form, he does not instruct him directly. Rather, he elicits knowledge from the slave which he did not know he possessed. The diagrams themselves elicit the buried intuitive knowledge of a world inhabited by the gods and by the divine "Forms."

In Plato's view, before birth we were familiar with purely mathematical "objects" and relations, as well as moral ideals or values. He alleged that we lost this knowledge at birth, but can recover it through revelation. For Plato, the virtues paled in comparison with the highest capacity of the soul, which is the mystical beholding of the eternal. Mystics tell us the divine is formless.

Actual space is not empty, but the possibility has always been a controversial problem in philosophy. Aristotle found the concept of a total void unacceptable. Scientists still cannot make a perfect experimental vacuum. Astronomy shows us that matter is averagely distributed, with roughly as much matter between the stars as there is within them. Yet, there are large voids in space, with stars clustered on the outer edges of these bubbles of void. The preponderance is of volumes of empty space over volumes of matter.

So, the characteristic feature of the universe is not matter, but seemingly empty space. Again, most of the interior of the atom is empty, as is the space occupied by the galaxies, and the vast regions which separate them. Stars, atoms, and the vacuum are a seamless whole.

The notion of the eternal nature of sacred emptiness is echoed in modern quantum theory. This is not ordinary, but dynamic and receptive emptiness, which masks a seething ocean of virtual (non-observable) scalar fields and particles. The central concept in Quantum Field Theory is that of the field, which exists everywhere and everywhen. It is a field of curved space/time. Matter is not separate from its surrounding space. The field can take the form of quanta or particles. It is the fundamental physical entity, the only physical reality.

The field contains the potentiality of all possible states or conditions in the universe. Of these states, the most fundamental is the Ground State, (or "vacuum state"). Matter is rare in the universe. Most of it consists of a very volatile, excited, ionic plasma. Only 5% of matter is neither too hot, nor too dilute, to congeal as a solid, liquid, or gas. This form of matter is so rare it has been described as 'trace contaminants.' Those so-called trace contaminants constitute our very essence.

Yet, some form of matter is essential to all activity. All matter is in motion. Activity is the essence of being. From the "cosmic zero", everything--the totality of "excited states"--arises by creative processes. It is also the state into which everything subsides by absorption processes. Virtual particles are continuously popping into and out of existence.

The ground state is characterized by the fact that it stretches to infinity, uniform and changeless. It is the same everywhere and everywhen because of the identity of space/time. Within the universal field the values of the ground state and excited states are all one. An unlimited amount of particles come into being and vanish endlessly. Matter is thus a temporary manifestation of the Void, an extrusion of the Void.

The so-called "cosmic zero" was modeled by geometer/philosopher Fuller in the figure he called Vector Equilibrium, (V.E.). It might actually claim to be the first "Buckyball," the one Fuller himself described. This geometry is the precursor of the new elemental 'Fullerenes.' The V.E. geometry has been recognized for a long time. It was one of the thirteen Archimedean solids, the cuboctahedron.

But the Greeks were fascinated with regular forms whose faces were all the same, such as the cube. They failed to understand the delicate balancing act the cuboctahedron symbolizes. They simply did not notice that Vector Equilibrium is pristine equanimity because they were looking elsewhere. The Greeks never really comprehended the energetic or energetic properties of Vector Equilibrium, i.e. dynamic stability. They couldn't conceive of the internal dynamics of stabilization, synergetics. They had a static, non-relativistic view of natural philosophy.

It remained for Fuller to assert that, "*zero pulsation in the Vector Equilibrium is the nearest approach we will ever know to eternity and god.*" The conceptual model is the closest our minds and senses can come to that cosmic realization, short of mystical revelation. Mind alone cannot fathom the depth of this Void. Geometry is a construct of the intellect.

The V.E. center is primal "emptiness." It does not exist in Nature, because nature never pauses at, but merely transforms through, this state. It is a mathematical anomaly where the normal laws of the space/time continuum break down. It is not a symbol of ultimate order. It looks like a very rational, orderly system, but it is ultimately irrational. It defies logic. V.E. is the breeder of wave-particle duality, the uncertainty principle, and non-locality at the quantum level. It is a zone of neutral resonance where waves can pass through waves without interference, according to Fuller. Yet, it never physically exists as a structure, since nature abhors a vacuum.

In quantum mechanics a system can never have an energy of exactly zero. There is no such thing as absolute emptiness. However, the minimal motion of the ground state is called zero point energy, or zero point motion. Cosmic zero exists, paradoxically, in the realm of the psyche (our conceptualization) and in quantum reality in the atomic nucleus expressed as force. It is the form of formlessness, the root metaphor. It also forms the celestial roots of the cosmic Tree of Life, since there is a fine-to-non-existent line between organic and inorganic matter on the quantum scale.

Physics is the patterns of organic energy, all of which are dynamic, alive. Mass is energy, so the subatomic world is always restlessly in motion. Inert matter is full of motion when we look closely at it. The activity of matter is its essence.

Vector Equilibrium emanates/condenses from a center in twelve fundamental directions. This emergent energy moves outward through space/time in the form of a cuboctahedron, alternating with its mathematical reciprocal, an octahedron-within-a-cube. It is a truncated cube with 50 symmetrically positioned topological features. Vector Equilibrium has the same surface area as a sphere, yet contains no volume, i.e. it contains "nothing."

The Vector Equilibrium system has 12 vertices, 8 triangular faces, 24 edges, and 32 planes. It is omnidirectional equilibrium, symbolically and physically speaking. As such, it is a perfect symbol for "holding the tension of the opposites," or "uniting the opposites." Yet, it is more than a metaphor. It is an archetypal image which bridges the macrocosm with the microcosm. It is a living example of the Hermetic Axiom, "*As Above, So Below*," uniting spiritual and literal reality. V.E. makes it possible to make conceptual models of other dimensions (hyperspace), mathematically and mystically.

In the V.E. figure, equilibrium between positive and negative is zero. It is the equalization of the forces of push/pull, radiation/gravitation, or tension/compression. Fuller alleged it "*represents the limits of the mind's ability to conceptualize 'in'.*" For Fuller, all of space/time is undergird with a pre-geometric matrix, which is an infinite field of vector equilibria. An entire universe can be seeded from one V.E., self-generating to fill all space/time. There may be no ultimate physical building-block of matter, but there is one single entity that undergirds and composes everything in the universe, according to Fuller. The basic element of the universe is dynamic patterns.

This field constitutes a "cosmic blueprint" which Fuller called the Isotropic Vector Matrix (I.V.M.), a living continuum. The allocation of divinity to this "mother of all fields" marks its archetypal character. As a variation on the theme of Celestial Goddess, it symbolizes the embodiment of nature. Like a modern Isis, it iterates the theme of the underlying, inseparable cosmic web or net, connecting all.

The living Void gives birth to all phenomenal forms. It pulsates with the rhythm of creation and destruction of material particles. Another goddess, Nuit, is the essence of Infinite Space. She is infinite energy density pervading the entire cosmos. She is the receptivity of the void to the wavelength of radiation. Adjusting the geometry of the void influences the propagation of radiation. The goddess Ma-at, or Balance, is another expression of the same universal V.E. energy.

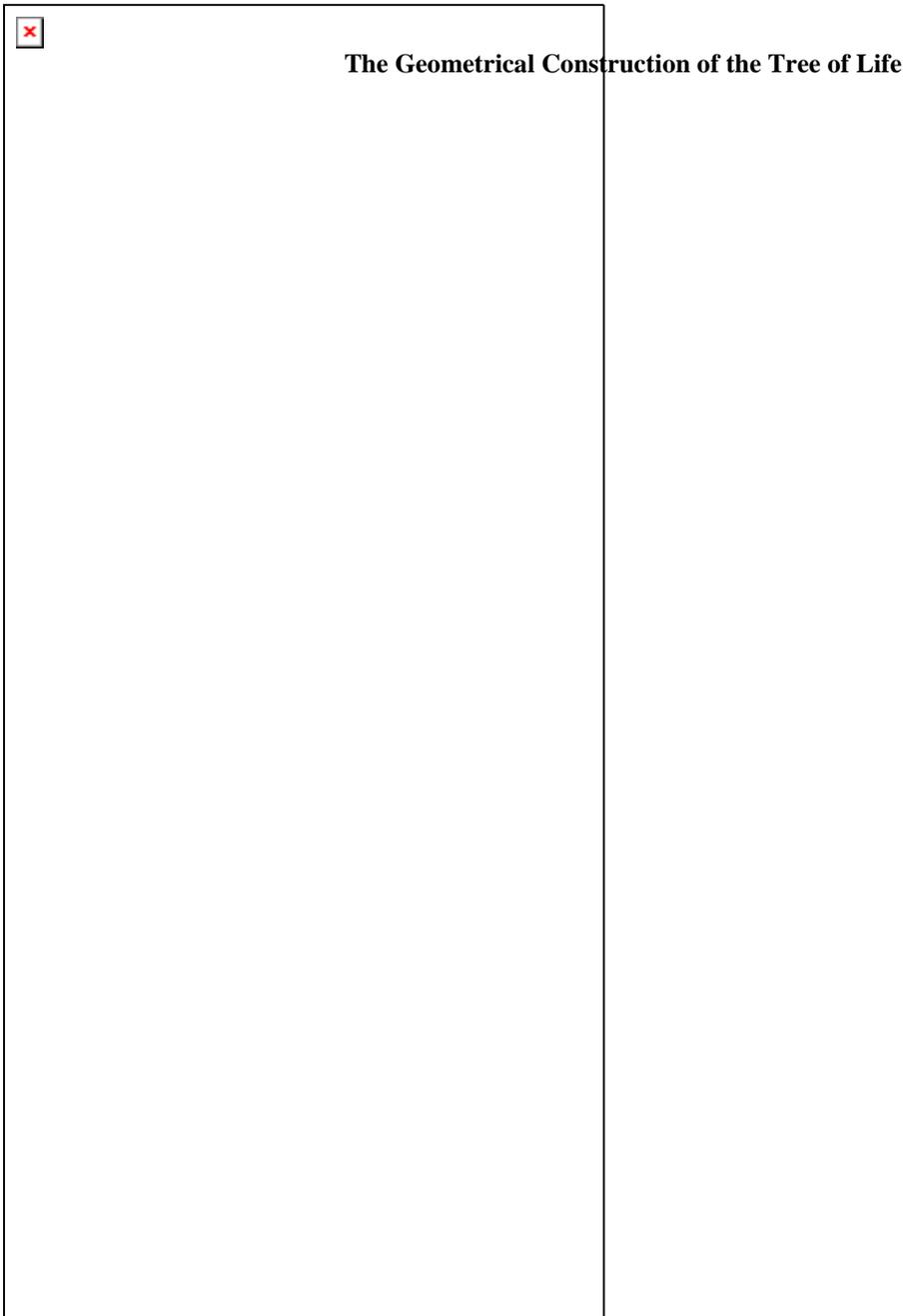
The Upanishads identifies Brahman with the void: "*Brahman is life. Brahman is joy. Brahman is the Void. Joy, verily, that is the same as the Void. The Void, verily, that is the same as joy.*"

The geometry of Vector Equilibrium is inferred from that of closest-packed spheres of equal radius. It just happens to be the geometry which underlies all matter since it is found in the nucleus of all atoms as sub-atomic force. Here, in the interior of atoms, Newtonian physics does not apply. This is a probabilistic, acausal world. Here synchronicity prevails over chronicity.

This uniform geometrical field, with the property of Divine consciousness, is the basis for a geometrical model of reality spanning the abyss between the metaphysical and the physical. It is not the first model in history to attempt to do so. There is an ancient geometrical model which shares a common framework with the Vector Equilibrium.

THE GEOMETRY OF THE QABALA

The ancient mystical system of the Qabala is formulated around the geometrical glyph known as the Tree of Life. This sacred geometry system came down to us through Judaism and Hermetic Philosophy. It is one of the main currents of thought in the Western Occult Tradition. A mathematically accurate image of the Tree of Life can be constructed by dividing a vertical line into four equal lengths and filling in four intersecting circles, using a fourth of the line as radius. The nexus points are the positions of the 10 spheres, and connecting paths join the centers of the spheres.



The spheres represent states of consciousness or ways of being, while the paths are ways of transition or change. It symbolizes all ways of being and becoming. Like the quantum field, it contains the potentiality of all possible states or conditions in the universe. It is just the ancient way of saying it, and it turns out to be physically provable. The ancient model coincides with state-of-the-art physics. The 10 spheres and 22 paths yield a total of 32 planes of reference, like the Vector Equilibrium.

This "tree" was first described in writing in the *Sephir Yetzirah*, or *The Book of Formation*. Legend says the book came to Abraham, from God, through an angel. Today, we might say it was "channeled" from a divine source. Jewish scholar, Gershom Scholem dates the work around the third to sixth century. However, there is some astronomical evidence that the system does date from the time of Abraham, approximately 4,000 years ago.

Whether the patriarch was the first to receive the revelation, or not, this archetypal consciousness map encodes a system of spiritual wisdom and growth in geometrical form. It describes the nature of the universe, consciousness, and the creation. It seems to have intuitively anticipated the discovery of the physical nature of reality.

The glyph itself was used as a meditation device by students of the Qabala, an oral wisdom tradition. One aim of the qabalists was to see the Tree always, everywhere, in everything. Another essential doctrine of Qabala is that humans possess a "spirit body" that can detach itself from the physical body and ascend to higher planes.

Most modern students of Qabala are familiar with the standard 2-dimensional representation of the Tree, which is drawn "flat," even though the circles are always conceived of as spheres. There is also a long tradition of a so-called 4-dimensional Tree of Life diagram, based on *The Book of Formation*. This geometrical figure consists of two interfacing pyramids surrounding a central core, within an enclosing cube.

This octahedron-within-a-cube happens to be the crystal structure of diamond, a face-centered-cubic lattice. Recalling that Abraham is also the patriarch of the Moslems, it is interesting to note reference to a spiritual body, a "diamond body", in the writing of Shaikh Amad Ahsa'i from the 13th century. Speaking of a substance akin to that of the medieval Philosopher's Stone, he equated the "diamond body" with the "Resurrection Body" of the faithful believer in the Paradise of the future Aeon.

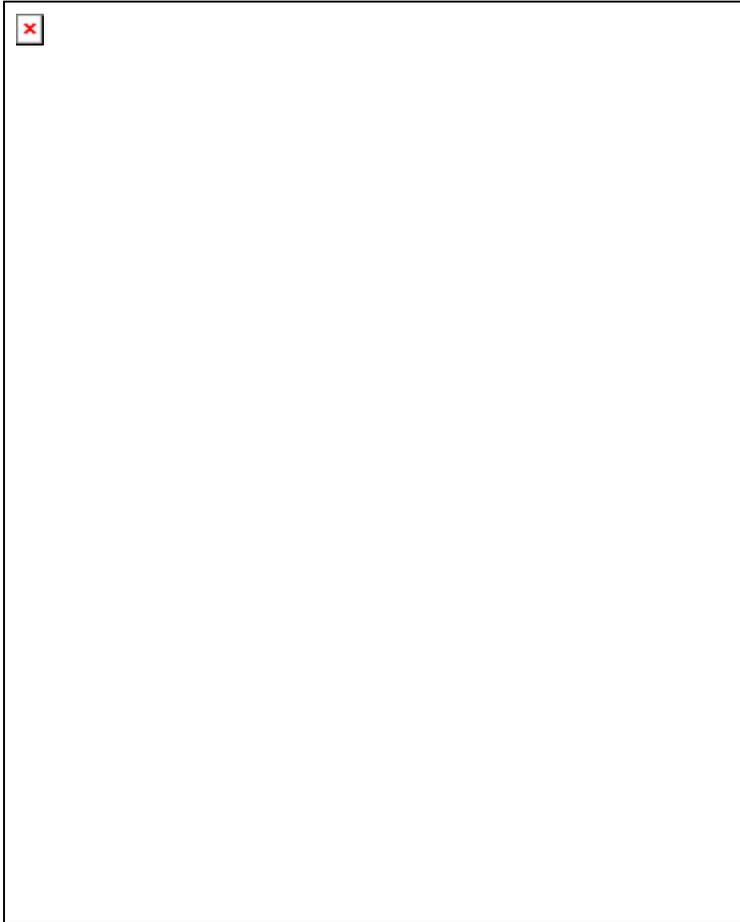
For the Qabalists, meditation on this figure provided a mystical body as a vehicle for consciousness in imaginal space. This diamond body was used during meditation to enter the inner court of Divinity, symbolized by the center of the figure. Here the Beginning and End of time are co-temporaneous, space ceases to be a hindrance, and the mystic beheld the ecstatic vision of the Lord on His Throne. The geometry was a "gateway" to another dimension of experience.

This Alpha-Omega point has all the physical qualities of Vector Equilibrium. The ancient meditation practice was known as Merkabah mysticism, and those who

practiced it called themselves, "Riders in the Chariot." They claimed to see into the future. This insinuates that the figure is a "vehicle" for moving consciousness through imaginal time and space. It seems to be a metaphysical "time machine," or inter-dimensional gateway.

As in most design or mandala meditations, the aspirant pictures him or herself at the center of the figure through visualization, contemplation, and identification. Through this process of centering, these mystics came to know themselves and God. Perhaps they learned, as Fuller later discovered, of the unusual anomalous conditions of perfect equilibrium. This meditation provided a specific technique for escaping from time. Its realization meant instantaneous enlightenment, a paradoxical leap out of Time. It facilitates transcendence.

Occultist, Paul Foster Case published an array of this type in his book, *The Tarot* (1947). Aware of the ancient mystic practice, he included the figure in his study of Qabala, calling it alternately the Key of the Cosmos and Numbers, or the Cube of Space. Again, we have the form of the octahedron-within-a-cube. Vector Equilibrium and the Cube of Space are mathematical duals, or reciprocals of one another. They "jitterbug" back and forth as the figure grows outward to fill all space. They are two ways of looking at the same geometrical phenomena.



Case pointed out that its construction was based on the six-pointed Star of David, (or Shield of David), also known as "The Star of the Macrocosm." His descriptors of zero as a sacred, empty, consciousness field reiterate the qualities of Vector Equilibrium.

Zero is a symbol of the absence of quality, quantity, or mass. Thus it denotes absolute freedom from every limitation whatever. it is a sign of the infinite and eternal Conscious Energy, itself No-Thing, though manifest in everything. It is That which was, is, and shall be forever; but it is nothing we can name. Boundless infinitely potential, living light, it is the rootless root of all things, of all activities, of all modes of consciousness. In it are included all imaginable and unimaginable possibilities, but it transcends them all. The Qabalists call it: (a) No-Thing; (b) The Boundless; (c) Limitless Light. Pure Conscious Energy, above and beyond thought, to us it is Superconsciousness.

With their fascination for completely regular figures, the Greeks devised a way of establishing XYZ coordinates within a cube. Our science and method of orientation has been stuck with that model ever since. However, nature's own most economical coordination is in triangles and tetrahedra, rather than squares or cubes.

Vector Equilibrium is more in line with modern Quantum Mechanical models than the Newtonian XYZ. It expresses more degrees of freedom. Cubes are inherently unstable; they lack tensegrity. The Greeks modeled on them because they were used to using stone blocks.

So, close examination of the underlying geometry of the Tree of Life reveals that the ancients were not lacking a very deep intuitive awareness of the true structure of matter and the universe. It may have been pre-conscious, rather than conscious, but it was correct. The underlying geometrical matrix of the multi-dimensional Tree is, in fact, Vector Equilibrium. To find the commonality--the harmony--the figure of the V.E. must be subjected to a transformation process, i.e. rotation.

To bring the two figures into synch, simply rotate the V.E. to any edge of its containing cube. If the 3-dimensional V.E. is drawn flat, the inherent geometry of the Tree of Life is immediately revealed, including some of the so-called "hidden" paths. A symbolic representation of the optimal union of opposites, it means in psychological terms, "holding the tension of the opposites."

This is the essence of the Tree of Life. The theme of union of dynamic opposites has reverberated down through the ages. It was the process/goal of alchemy, creation of the Philosopher's Stone. Now, Jungian psychology carries the torch of this philosophical pursuit. Both Vector Equilibrium and the Tree of Life express this most elegantly and economically in terms of minimal graphic elements.

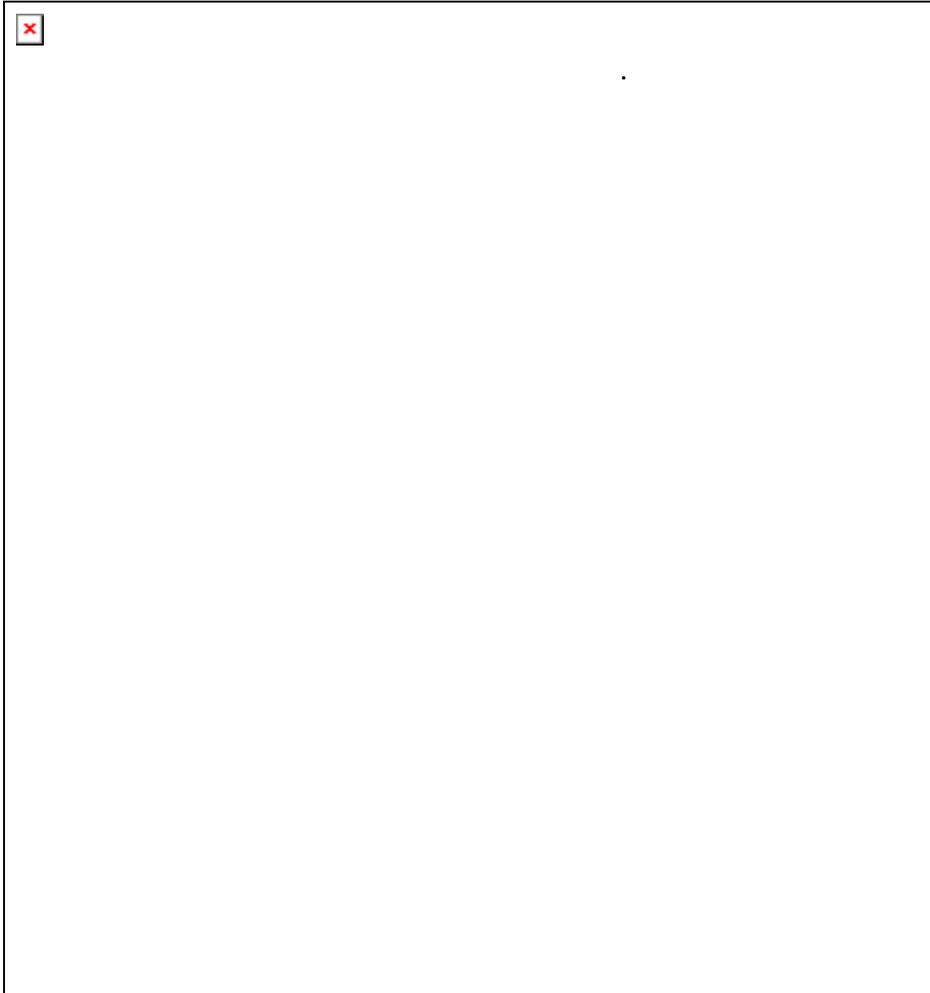
insert picture c tree of life

By combining the vectors of a V.E. nested within a cube, it is possible to derive the nexus points on which to construct the entire Tree of Life. In *The Anatomy of the Body of God*, (1925), Frater Achad, (magickal name of Charles Stansfield Jones),

revealed an amplified Tree of Life projecting from a center in six directions. Rather than a flat depiction, his revelation showed Trees radiating in the four cardinal directions, plus up and down. This is another variation on the theme of XYZ coordinates. Yet, V.E. can be shown, once again, to be the skeletal matrix on which the figure congeals. The geometrical duals yield all the necessary nexus points to form the entire Tree of Life, including the 11th mystery sphere, Daath. Achad's advice for modern Qabalists says,

...since the "Tree" is everywhere the same in every part of space, once its general attributions are fixed in the mind, it is not well to confuse ourselves by too much attempt at progressed expansion of the idea. Rather we would return and contemplate the Centre from which All proceeds, thus obtaining the Pure Essence Here and Now.

This concept of a self-generating, self-iterating, all-space filling, crystalline system seems to herald the modern discovery of the fractal nature of the universe. Whether we look at the macrocosmic, mesocosmic, or microcosmic level, we find the same principle operating. By following any portion of the consciousness map "backwards" and "downwards" to the center, we have a conceptual means of entering that most pristine state of consciousness where All becomes No-Thing.



GEOMETRICAL IN-SIGHT:

These systems are virtually pre-geometrical. They don't really exist in nature, per se. Yet they are the invisible lattice, or bare bones, of our physical and spiritual life, of all life and manifestations. In this pre-geometry we have a blueprint for the formation of all matter, all form. This is the geometry of closest-packed spheres in the nucleus of the atom.

Yet, Vector Equilibrium is more than an expression of nuclear forces. It is "*an endlessly interlinked chain of atomically self-renewing links of omni-equal strength or of an omni-directionally interlinked chain matrix of ever renewed atomic links,*" according to Fuller. No single configuration of matter persists indefinitely. All is change and recombination. V.E. describes the most economical lines of movement within the atomic nucleus. And, it also is the structural matrix of a very ancient and sophisticated consciousness-changing technology. Through it we remember deep knowledge of our true nature.

Noting the metaphysical aspect of physics, physicist Wolfgang Pauli said, "*We should now proceed to find a neutral, or unitarian, language in which every concept we use is applicable as well to the unconscious as to matter, in order to overcome this wrong view that the unconscious psyche and matter are two things.*"

We have, in the V.E. model, a language or information transfer system that bridges both the physical and the spiritual. Fuller says, "*In this model the physical and metaphysical share the same design.*" The mundane and supernatural share the same design: "*As Above, So Below.*" It creates a mystical revelation described as ecstatic, blissful, joyful, transcendental.

Goethe's Faust opens with the mage contemplating the qabalistic, geometric design of the Macrocosm:

*What jubilation bursts out of this sight
Into my senses--now I feel it flowing,
Youthful, a sacred fountain of delight,
Through every nerve, my veins are glowing.*

*Was it a god that made these symbols be
That sooth my feverish unrest,
Filling with joy my anxious breast,
And with mysterious potency
Make nature's hidden powers around me, manifest?
Am I a god? Light grows this page--
In these pure lines my eye can see
Creative nature spread in front of me.
But now I grasp the meaning of the sage:
"The realm of spirits is not far away;
Your mind is closed, your heart is dead.*

*Rise student, bathe without dismay
In heaven's dawn your mortal head."*

(He contemplates the symbol.)

*All weaves itself into the whole,
Each living in the other's soul.
How heaven's powers climb up and descend.
Passing the golden pails from hand to hand!
Bliss-scented, they are winging
Through sky and earth--their singing
Is ringing through the world.*

To know ourselves is to know the nature of cosmos. The yogis and masters tell us that matter is mind or consciousness at its most fundamental or gross level. Now scientists are saying essentially the same thing. In *Aion*, psychologist Carl Jung reiterates the identity of psyche and matter:

Psyche cannot be totally different from matter, for how otherwise could it move matter? And matter cannot be alien to psyche, for how else could matter produce psyche? Psyche and matter exist in the same world, and each partakes of the other, otherwise any reciprocal action would be impossible.

From the dawn of history mankind has employed sacred geometries for metaphysical orientation and creating consciousness maps. Most maps of the psyche imply a "journey" either to the heights or depths of experience. Long ago Heraclitus alleged, and mystic artist William Blake agreed, that the way up and the way down are one and the same.

Metaphysical models usually speak of an ascent to utopian heights or "inner planes." Psychological models are usually concerned with descents into the subconscious depths and use subterranean imagery. These depths were the familiar territory of shamans for millennia. Both the occult and transpersonal psychology models include heights and depths of human experience. Maslow introduced the concept of "*peak experiences*" to psychology.

We may have the erroneous idea that peaks, or heights, or "highs" are "good." This is mainly because we are enculturated to strive upward. This is only one of a myriad of states of consciousness, and it belongs to manically over-achieving heroic ego. Negatively directed, this same energy can produce an all-time high in a sociopath or criminally insane personality, during a heinous act.

All that is "up" is not "good"; and, all that is "down" is not "evil." This misapprehension is the root of the notion of a spirit/matter duality, where all matter is inherently "evil". In this belief system, "we exist: therefore we are sinful." Yet, our heights and depths contain the first-hand experiential knowledge that 'we are one.'

This old system of orientation and modeling the universe, with its ascents and descents of the soul, was adequate for many years. However, for the modern individual, with a consciousness that is not earth-bound, the old hierarchical model is no longer the best metaphor. Today we are not confined to the spectrum of reality dictated solely by our finite senses.

We are directly aware of physical realities ranging from the sub-atomic to the cosmic. Our perceptions are amplified with technology. New ways of seeing lead to new philosophical perspectives. We can align our mystical worldview with physical reality. The true nature of physical reality remains a mystery. Even for physicists, it has an elusive quality. No one really knows just what a quantum, a photon, or an atom "really is" or what it is doing when we're not looking at it.

Physics is another interpretation of reality. We have become aware of a vast physical dimension without and an equally vast realm of psyche within. They are available for exploration. And there are ancient and modern technologies which aid us here. In terms of modern orientation and consciousness models, an omnidirectional system allows more degrees of freedom. This freedom is a conceptual, imaginal, and physical reality.

Buckminster Fuller said that in whole systems the directions are always out and in. "In and out are the relevant directions, not up and down." Models or maps based on "in and out", rather than "up and down", allow us to conceive of particular states or conditions. As a metaphor, "in and out" is a typical characteristic of the phase states of matter. It is either in or out of phase or synchronization. During observation, matter is either in solid physical existence (particle) or out of solid physical existence (wave).

This wave-particle duality exists within us all. This uncertainty surrounding substantive existence leads to paradox. We cannot grasp one part of nature without another part slipping through our fingers. Photons, neutrons, and even atoms have no definite form until they are measured. Wave-particle duality is a mystery. However, this primal characteristic of atoms, and the energy exchange in their cores, is the basis of our physical existence. The emergence of stable matter requires the balancing of tendencies toward implosion and explosion. This is the function of Vector Equilibrium.

Physicist David Bohm modeled an "in and out" universe of implicate (in) and explicate (out) order. Yogis focus on the in and out breath during pranayama, and the experience connects them with cosmic time. The psychological tendencies, introversion and extroversion, express the polarity in ways of being. In cybernetics there is input (I) and output (O), the direction of the signal determining if it is I/O or O/I. Vector Equilibrium is the most economical model using geometry to express the ultimate union of the opposites. It creates the paradoxical state that is neither in nor out, up nor down, neither this nor that.

For Fuller, the balancing of the tension of the opposites was achieved in his tensegrity sphere. It is stabilized dynamically to neither explode nor collapse. This

original "Buckyball" is a tangible example of Vector Equilibrium. According to Fuller, "matter" itself is a contained explosion, and the Vector Equilibrium is its austere image. It is a system not a structure. It underlies structure or formation of something from apparent "nothingness."

Vector Equilibrium is the lattice or invisible framework, and its blueprint is the cuboctahedron. Its explicit form can enfold on itself until it compacts down into an octahedron, then a tetrahedron, the prime geometrical form. This is accomplished by doubling up on the vectors on the edges. This creates the difference, for example, between carbon, diamond, and silicon atomic structures. They are all face-centered cubic crystals. Coincidentally these elements are symbolic icons in our culture. They are the hallmarks of technology.

A simple way to visualize the Vector Equilibrium is through the closest packing of spheres which underlies the geometry of crystal formation. Imagine a cluster of ping pong balls glued together, 12 around 1, then building out further and further. If you imagine vectors connecting the centers of each ball, in the third layer you can find the Vector Equilibrium.

The vectors that radiate out from the center are exactly equal to the vectors that bond the faces. No other structure can make this claim. This is the symmetry the Greeks missed, because it is an energetic process, manifesting force, not a thing. Vectors are not points in space traveling through time. Vectors map energy events. Time determines a vector's length--the time it takes an energy event to happen. There must be time for wave functions to propagate. We know a musical note requires time to exist, because a note is nothing in an instant.

Time is a duration. If we ask ourselves "a duration of what?", we can only answer "...of nothing, or something." All "somethings" are composed of matter, and the nature of matter is consciousness. So time becomes a duration of consciousness. Energy is substance. Substance is energy at the quantum level. Our substance is energy, and consciousness is fully capable of quantum leaps.

Fuller's energy mapping uses energetic triangles, in which three lines are not just lying there but are busy stabilizing the angles opposite them. Fuller describes the dynamic domain of "reality" as a broad spectrum of energy events, across a small portion of which our senses can "tune." Vector Equilibrium allows us to conceptually, metaphorically, and spiritually bridge the abyss between the mystical and scientific perspectives through sacred geometry. It is a key to the implicate and explicate order.

We should now proceed to find a neutral, or unitarian, language in which every concept we use is applicable as well to the unconscious as to matter, in order to overcome this wrong view that the unconscious psyche and matter are two things.

--Professor Wolfgang Pauli

I. PHILOSOPHY: ROMANCING THE STONE

A. THE PRACTICE OF ALCHEMY

In the alchemical search for the God-head in matter, Paracelsus contended that matter was a living counterpart of the creating deity. A system of correspondences is the foundation of alchemy. The conception of a primal event manifested in different fields is fundamental to alchemy. The process in the retort vessel is analogous to the process of transformation of the psyche. Through alchemy, we can perceive the parallels between macrocosm and microcosm, universe and man.

The metaphorical perception of alchemy grew in the Jungian school of psychology. It emphasizes the process of psychological transformation, or individuation. The model of the vector equilibrium matrix restores a physical basis to the concept of the Philosopher's Stone. This renews the alchemical philosophy which is, like Jungian psychology, concerned with the union of psyche and matter.

There are three primary aspects of alchemy:

- 1. Alchemy as theory, is a comprehensive philosophical vision of the cosmos, built on the universal correspondence system.**
- 2. Alchemy as practice may be viewed as a creative discipline, an art-form, involving one in the imaginal realm of soul-making.**
- 3. Alchemy, as a transcendental search or quest, has the primary goal of liberation from the world. This is the knowledge of immortality, through the union of opposites.**

Paracelsus described alchemy as the voluntary action of man in harmony with the involuntary action of nature. If the center of the creative process takes place in the "heart of man", his intentions take on profound significance. They can now affect, or influence, the destinies of the cosmos. Attainment of this state is known as the production of the Philosopher's Stone or Diamond Body.

B. THE PHILOSOPHICAL CONCEPT OF THE IMMORTAL BODY

The Philosopher's Stone may be equated with the Causal Body, the Resurrection Body, or the Immortal Body. It is a vehicle for consciousness to inhabit, which is qualitatively different than the Astral Body, a double of the physical body.

Alchemy strives for the experience of spiritual rebirth through the union of opposites, or the sacred marriage. The Philosopher's Stone is also a symbol of the embryonic Self. It is the product of the sacred marriage, which has been characterized in alchemy as the union of the Sun (+) and the Moon (-).

Polarized positions, or extremes, may be symbolized variously as positive-negative, male-female, god-devil, spirit-matter, mother-father, etc. This marriage creates a bond by which opposites are united in an image which transcends both original

potentials. The whole art of alchemy is contained within the image of a magical or divine child.

One of the alchemical goals is to create an eternal body for post-mortal continuation of the spirit and the soul. Both the western and Chinese alchemists felt this could be accomplished in a lifetime, with the help of God, or the Self. This vessel for immortality is the Diamond Body.

Alchemy, like Jungian psychology, is a creative discipline which embraces all things from the standpoint of soul.

C. THE PSYCHOLOGICAL MEANING OF THE PHILOSOPHER'S STONE

There is an inherent paradox in alchemy: all the while stressing redemption of the physical body, or matter, alchemy is actively striving toward creation of a subtle, immortal body, which has no apparent physical basis.

This central problem in alchemy is the spiritual redemption of the physical body. Alchemy requires resurrection of the soul of body. The challenge one encounters is to "see through" to a unified vision of mundane physical processes with spiritual values. This develops an awareness of the ordering processes inherent in matter. The solution is to visualize the physical as a metaphor for psychic transformation.

Close scrutiny of the foundations of matter ought to reveal some physical analogies to this 'archetype of the spiritual essence inherent in matter.' In alchemy, matter is perceived as a living feminine counterpart of the spiritual father or creator-god. It is an equivalent, not subordinate, principle.

In *THE COMMENTARIES OF AL*, Aleister Crowley corresponded matter with the goddess Nuit. In other disciplines, Nuit is known as *Sapientia Dei*, *Sophia*, *Shakti*, *Isis*, *Shekinah*, etc. In alchemy, she is represented by the *Anima Mundi*, or World Soul. Nuit, as matter, is the feminine form of Godhead. Inherent in this word 'matter' are the concepts of matrix or lattice; and mater, the mothering womb. This implies a possible dovetailing of traditional attributes of Nuit with specific geometrical systems which operate at the atomic level.

*O Nuit, continuous one of Heaven, let it be ever thus;
that men speak not of Thee as One but as None; and let
them speak not of thee at all, since thou art continuous!(1)*

Nuit, as 'zero' or 'naught' represents the field of potentiality.(2) By definition, She may not be represented concretely, or be observed directly and finally. Her presence, however, may be inferred.

Microphysics, by feeling its way into the "unknown" side of matter, parallels the quest of the alchemist. The goal is toward a unified field theory, an all-encompassing model between subatomic and cosmological states of matter.

An analysis of crystals in microphysics (solid state physics) might provide a basis for unifying the philosophical and physical concepts regarding matter. This geometry can describe a system or matrix of unfoldment, bridging the microverse to the cosmos.

The geometry or matrix description of a crystal can act as a "lens." This "lens" enables one to "see" or focus a projection of the physical state of matter into its spiritual counterpart.

Alchemy is the means of "seeing the Philosopher's Stone", itself; it is also a means of "seeing through" the Stone. As such, it is a form of metaphorical perception. The Stone is produced by the transformation in one's own psyche.

The Philosopher's Stone, seen as a magic crystal, is not a spiritual or psychological state, but more a magickal tool or universally applicable instrument of magic. One can attain the ultimate mystical experience through proper application of the Stone. The Stone possesses the "virtue" or healing power to influence or transform things.

The process of making the Philosopher's Stone is a repetition of the creation myth via imagery. The imagery reverses the evolutionary direction. It begins with animal images, then proceeds through images of plant life to more fundamental forms. The final goal is symbolized by metal, stone, or crystal.

This language usually presents the ego in a direct line of confrontation and covenant with a single self, represented by images of unity (mandalas, crystals, balls, wise men, and other patterns of order). But according to Jung the self has many archetypal instances. The puzzling relation between self and the archetypes reproduces the ancient enigma of the many-in-the-one and the one-in-the-many.(3)

The alchemical concept of the Stone accommodates either/both a monotheistic attitude (where God is One), or a polytheistic viewpoint (which recognizes the value of the differentiation among archetypal figures). When we can distinguish among divine figures, mythic creatures, and the phenomenal world, we may orient ourselves in the imaginal realm.

The process of alchemy takes place within certain boundary conditions. It is visualized as occurring within a vessel (i.e. a containing form or matrix). Consciousness and life must be intensified or contained by focusing one's attention. The process of reversal signifies reunion with the unconscious laws of our being. These laws also affect the formation of matter on quantum levels (in the subatomic world of protons, neutrons, electrons, etc.).

The purpose of alchemy is real-I-zation of the many aspects of the Universe. The vessel contains and co-ordinates the manifold of psychic contents.

The vessel is the "lens" or geometrical relationship between these archetypes. It is possible to restore and renew the alchemical philosophy by reuniting psyche and

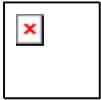
matter through contemporary imagery. One way of pursuing this analogy of the Stone is by examining current concepts in solid state physics.

The mathematical descriptors relevant to the concept of the Stone are already developed. Archetypal ordering processes at the atomic level form a basis for a relationship between life and its crystal counterpart. This unification of vision may be found in the diamond crystal structure.

(1) Aleister Crowley, THE BOOK OF THE LAW, I:27.

(2) Philo Stone, N=50, V=6: ON NUMBER AS FIELD, Carlton, 1981.

(3) James Hillman, THE MYTH OF ANALYSIS, N.Y., Harper and Row, 1972, p. 265.



II. ORIENTATION

A. SOLID STATE PHYSICS:

A study of the physical properties of the solid state, viewed as a branch of atomic physics, began in the early years of this century. Solid state physics has come to mean the study of crystals and of electrons in crystal structures. A century ago the study of crystals was concerned only with the external form of the crystal and geometrical symmetry relationships, which described the physical properties.

Many crystalline minerals and gems, particularly quartz have been known and described for several thousand years. One of the earliest drawings of a crystal appears in a Chinese pharmacopeia of the eleventh century A.D. The word crystal itself referred only to quartz until the late middle ages when the word acquired a more general meaning.

A.L. Seeber(1) of Freiburg suggested in 1824 that the elementary building blocks of crystals were small spheres. He proposed an empirical law of interatomic force with both attractive and repulsive regions. This model mathematically caused a lattice array to be the stable equilibrium state of a system of identical atoms.

Linus Pauling updated this idea in an article entitled "*The Close-Packed-Spheron Theory of Nuclear Fission*" (SCIENCE, Vol. 150, 1965, 297-305). He discovered that the arrangement of spherons (nuclear constituents) are roughly spherical in shape and packed in concentric layers. They have intimate connection with certain Platonic solids (the tetrahedron, the octahedron, and icosahedron). He also found that "resonances" enter into the dynamics of nuclear constituents.

An ideal crystal is constructed by the infinite regular repetition in space of identical structural units in the form of parallelepipeds. In the simplest crystals such as copper, silver, gold and the alkali metals the structural unit contains a single atom. More generally the structural unit contains several atoms or molecules, up to perhaps 100 in an inorganic crystal and 10⁵ in protein crystals.

We describe the structure of all crystals in terms of a single periodic lattice. A group of atoms is attached to each lattice point situated in each elementary parallelepiped. This group of atoms is called the basis; the basis is repeated in space to form the crystal. There are fourteen Bravais or space lattices possible. The diamond structure is the densest pack of atoms.

The space lattice of a diamond is a face-centered cubic (f.c.c.). A primitive basis of two identical atoms at 0-0-0; 1/4-1/4-1/4 is associated with each lattice point. The tetrahedral bonding of the diamond structure has four nearest neighbors, and twelve nearest neighbors. There are eight atoms in a unit cube.

The Diamond lattice is relatively empty. The maximum proportion of the available volume which may be filled by hard spheres is only 0.34, or about 46 percent of the filling factor for a closest-packed structure. Carbon, silicon, germanium, and grey

tin crystallize in the diamond structure. The diamond structure is the result of covalent bonding. In covalence an atom shares electrons with surrounding atoms. Two atoms sharing a pair of electrons makes a bond.

B. THE VECTOR EQUILIBRIUM MATRIX:

The vector equilibrium matrix, as discussed by Buckminster Fuller (2) in *SYNERGETICS 1* and *2*, describes the most economical lines of movement within the atomic nucleus. These are the preferred pathways for energy exchange, because they are the paths of least resistance. The equilibrium point between + and - is zero. The vector equilibrium is a true zero reference point for energetic mathematics, according to Fuller.

The vector equilibrium modelling is important for conceptualization in philosophy and quantum physics. It is a graphic depiction of the nuclear tendencies to implosion and explosion. These forces are mathematically reversible, and always in exact balance.

This zero point is never directly observed as physical experience. This is reflected, perhaps, in mystical thought by the phrase, "*I am Isis; no man hath lifted my veil.*" We can see no further into nature than fluctuating fields of energy which constitute the constant background motion. All that is, is in motion. But it is sustained by the ground state or "cosmic zero."

The vector equilibrium matrix is a system, not a structure. When the goddess Nuit is corresponded with the vector equilibrium matrix, She may be seen as nuclear nothingness. This Goddess of infinite Space is the zero point, where waves pass through waves without interference lines. She is the womb from which all that is born in materiality emanates forth.

This vectoral phase or mathematical zone of neutral resonance occurs between the outwardly pushing electromagnetic wave propagation and inwardly pulling gravitational coherence. The specific crystal structure represents the state of equilibrium in bonding. The vector equilibrium matrix is the mathematical description of this zone of neutral resonance.

The diamond structure, using Seeber's small sphere model, packs together the most compact spheres of equal radius. This f.c.c. pack produces the densest form of matter, the diamond.

Before examining the philosophical importance of this geometric configuration, it should be firmly fixed in the mind's eye:

[Cubic close-packed crystal structure]

[Model showing the structure of a diamond]

[Expanded model showing the basic pattern]

A visual image of the vector equilibrium matrix (V.E.M.) can be constructed via the following steps:

1. Begin the visualization of the Bravais lattice for a face-centered cubic crystal. See Figure. The center point is the equilibrium point or zone of neutral resonance. There is no atom at this point as this is the zero point of equilibration. Visualize the three tetrad axes of the cube, XYZ coordinates, which join the centers of the six plane faces.

[Cube figure]

2. The diamond crystal has atoms at each point, as shown in Figure 2. Note that the primitive cell is a rhombohedral cube inside the cubic lattice, with a 60 degree phase shift between planes. Characteristics of this f.c.c. lattice are give as the following:

Volume, conventional unit cell a^3

Lattice points per cell 4

Volume, primitive cell $1/4(a^3)$

Lattice points per unit volume $4/a^3$

Number of nearest neighbors 12

Nearest-neighbor distance $a/\sqrt{2}$

Number of second neighbors 6

Second neighbor distance a

Visualize the rhombohedral primitive cell and its relationship to the diamond crystal lattice.

3. The next step is to visualize the close-packed crystal structure. This shows the relationship of the 12 nearest neighbors. See Figure 3. The changes in planes visualization (Figure 2 to Figure 3b) begins to form the matrix relationship between planes. Visualize a "change of rotation" in the primitive cell.

4. This stage, arrived at via a visualized rotation of planes, produces what is known as the Diamond Body. See Figure 4. This physical structure has a history of traditional use in Jewish mysticism where it is known as the Merkabah, or Throne-Chariot of God. This figure is described in detail in the SEPHIR YETZIRAH, or BOOK OF FORMATION. Visualize two pyramids, base-to-base, within a cube (octahedron within a cube).

The Vector Equilibrium Matrix is the reciprocal view of this figure. It is the hidden, occult, or implicate aspect of the Diamond Body. It expresses the energetic quantum aspects of the Diamond Body. They are two sides of the same coin. The Diamond Body connects the centers of the plane faces of the cube with one another. The V.E.M. connects the centers of each line, leaving a truncated cube.

[covalent bonding diagram]

[rhombohedral primitive cell]

5. The final stage of visualization yields the geometric figure known as the Vector Equilibrium Matrix. This system results from forming plane surfaces between the centers of each atom. It represents the most economical lines of movement between closest packing of spheres. It is a matrix in that it sets up an archetypal ordering process. Visualize the twelve nearest neighbors connecting to each other with 6 square faces and 8 equilateral triangular faces, along 24 edges.

This yields a figure with the following properties:

12 vertices

8 triangular faces

6 square faces

24 edges = 50 symmetrically positioned topological features

The synthesis of psychological opposites contained in the figure of the V.E.M. is quite interesting. It is composed of the minimal number of graphic elements required to depict the relationship of '3' and '4'.

The figure shows the relationship between a threefold process and a fourfold goal. Deity, or godhead, is expressed in symbolism by triangles. The soul is depicted in its static quaternity form by the squares.

Three symbolizes an essentially monotheistic process, the total cycle of growth and dynamic change. While four is structural wholeness in its eternal aspect. Four shows the static, stabilizing influence of the polytheistic psyche.

Neither 3 nor 4 alone are an adequate symbol of wholeness. The quaternity alone is not an adequate symbol for totality as the dynamic, developmental, and temporal aspect is lacking. In other words, fourness may not be actualized without submitting to the threefold process of realization in time.

Psychologist Edward Edinger comments on Jung's view:

Jung does not consider the quaternity a completely adequate symbol for totality. Rather a union of quaternity with trinity in a more complete synthesis is required...The theme of twelve, for instance, includes both three and four in its factors.

The trinity archetype seems to symbolize individuation as a process, while the quaternity symbolizes its goal or completed state. Three is the number of egohood; four is the number of wholeness, the Self. But since individuation is never truly complete, each temporary state of completion or wholeness must be submitted once again to the dialectic of the trinity in order for life to go on.(3)

The Vector Equilibrium Matrix encompasses the union of the masculine trinity with the feminine quaternity. It depicts the union of soul and spirit, of the soul with the divine. As a synthesizing symbol, it is an embodiment of spirit and soul, distinct but attached. They are united through the twelve vertices.

(1) A.L. Seeber, "Versuch einer Erklärung des inneren Baues der festen Körper," ANNALEN DER PHYSIK (Gilbert) 76, 29-248, 349-372 (1824).

(2) R. Buckminster Fuller, SYNERGETICS, SYNERGETICS 2, N.Y., Macmillan Publishing Co.

(3) Edward F. Edinger, EGO AND ARCHETYPE, Baltimore, Penguin Books Inc., 1973.

[Vector Equilibrium Matrix diagrams 1-5 Regenerative Patternings]

C. THE COMMON GROUND BETWEEN PSYCHE AND MATTER:

Within the current laws of physics, there is always an overview law or paradigm. More often than not, this structuring is not immediately evident within the specific law. This overview is implicate to the specific, still enfolded within it, yet a priori to it. The limited, objective viewpoint is defined as explicate.

The implicate law can be considered as more encompassing than the explicate since it enfolds the explicate plus something undefinable. A specific example is gravity and its explicate relationship to the force of gravity. The force of gravity is explicate in that it is measurable within a limited context. Gravity is not even understood in physics.

Explicate ordering may be used for practical application in a limited context. This form of ordering does not, however, tell us anything about the Totality. The word "transformation" is thus used to describe a simple geometric change within a given explicate order. What occurs in the broader context of the implicate order appears as a quantized transformation: metamorphosis.

This form of transformation is characteristic of psyche. In Greek, psyche literally means butterfly. The butterfly does not evolve, but rather its quantized change occurs within a vessel of transformation--the cocoon. The new science of chaos theory postulates a so-called "butterfly effect" which contends that a simple movement of the butterfly's wing in Indonesia can create a hurricane thousands of miles away.

Psyche also expresses this chaotic sensitivity to changes in initial conditions. You never know quite where it will go next. Fundamental characteristics of psyche render it undefinable, from the explicate point-of-view. It is ceaselessly becoming, and the mystery of consciousness lies in its hidden (or occulted) implicate nature.

The implicate order may be seen to apply both to matter (organic and inorganic) and consciousness. This is equivalent to the alchemical goal of uniting psyche and matter. It requires, however, redefining our concept of consciousness.

Both parapsychology and analytical psychology have defined consciousness in terms that are most appropriate to "ego-consciousness." It is linear, directed thinking. Ego-consciousness is linear, directed, transcendence-oriented and monotheistic. It is

heroic, and as such is goal-oriented and produces the fantasy of moving consciousness through a series of hierarchal stages of development.

There is another way of imagining existence, where soul rather than spirit is the primary motivation. In fact, there are differing styles of consciousness, depending on our perspective. Styles of consciousness are relative to one another. Within our developing framework, we might consider ego-consciousness as explicate.

However, anima-consciousness mediates implicate order. Anima-consciousness, as conceived by James Hillman's school of imaginal psychology, is a multi-centered polytheistic perspective. Its concerns are being-in-soul, not becoming more, better, best or perfect. It is perceived as a coincidence of processes. All phases are present at once, enfolded in any part. It is experienced as a series of superimposed images. It is reflective and concerned with inter-relationships. It is diffused, not focused awareness. It mediates the unknown, or unconsciousness--that which is yet to unfold and still lies hidden behind the 'veil.'

'Anima' is the Latin form of the Greek word, '*psyche*.' They are cognate. James Hillman has called anima the archetype of psyche. As psyche means butterfly, he says it indicates "*a consciousness that does not soar but stays attached, that hovers and flutters over the field of natural events.*"

Anima-consciousness comes through images, multi-sensory images, from the primitive gut reaction to the most exalted vision. It brings awareness that fantasies are everywhere, conditioning our perception of reality and our place in it. Images and fantasies are not separate from our reality, but are fundamental to our notions about reality. Jung says, "*image is psyche.*"

Anima, as the archetype of psychic consciousness, makes us aware of our areas of unconsciousness. Soul, in its relationship with spirit, constantly invades the day-world of consciousness with images, fears, moods and mystery. It is elusive, ambiguous and paradoxical.

The interaction of spirit and soul, discrete yet connected, represents the sacred marriage, or coniunctio. So, one task is to distinguish them, one from the other. They have been confounded in theology, philosophy, psychology, and science. Descartes equated the ego with the soul, a grievous mis-representation. Anima, is a diffuse consciousness that seeks to re-create and unify with spirit in the royal marriage.

This mode of perception is conscious of its unconsciousness and can recognize the potential latent in the unknown aspect (the promise of the divine child). This style of consciousness can be characterized as illumined lunacy, and was a characteristic of many of the saints and sages throughout history.

When we can get outside of our culturally-programmed heroic consciousness and experience the world of imagination, dreams and creativity, the ego realizes that there are possibilities far outside of its sphere of observation.

There is an inevitable uncertainty principle in the realms of both matter and psyche. The autonomy of psyche's stream of consciousness assures we will never know her next move. And in physics an electron's position and momentum cannot be simultaneously measured. When we attempt to grasp one part of nature, we lose consciousness of another--it gets "fuzzy."

III. THE DIAMOND BODY EXERCISE

A. THE DIAMOND BODY VISUALIZATION

We all have an Observer Self, which dispassionately looks at ourselves from an elevated perspective. It is from the eyes of this self that we "see" into the visionary world. The scientist is a diminutive form of this unbiased viewer which is archetypal in nature.

In mysticism, the observer observes himself, in science, the world of things. The observation disturbs the experiment and uncertainty is created in the measurement. Within all observable phenomena there exists that part which is not empirically observed. This is primarily due to the choice of position in observation (location in space--viewpoint). The unconscious of the observer influences the result of the experiment despite any conscious intent.

The mystic has a priori ideas about the spiritual nature of reality. His observer-bias leads him to experience his spiritual world within his own cultural metaphors. It is a sort of "*I wouldn't have seen it, if I hadn't believed it*" consciousness. The beliefs are more fundamental than, and condition, the experiential consciousness-journeys the aspirant enjoys.

The marriage of psyche and spirit means a blending of rational and intuitive styles of consciousness, a dance of mutuality where each enhances the other. The word, 'psychology', is composed of the roots psyche and logos. It is an interaction between the imaginative anima and psychological intellect. Anima consciousness mediates the implicate order, logos allows us to articulate on limited, or explicate, aspects of existence. In its attempts to explain, it gives voice to soul. The logos principle gives speech to psyche. Therefore, the mandate of psychology is to harken to the speech of the soul.

The secret and key of psychological work requires the airy imagination of the soul, that is, the capacity of imagining events "outside" of the natural bodily perspective of empirical and material literalism but in regard to a subtle or fantasy body of psychic reality. Being-in-soul requires being in a body too, but this body is built of soul stuff; it is a "breath body." Fantasy images are this stuff, this "subtle body." The key to the entire psychological opus...is body-building via imagination.(1)

This body-building is a creative act of fantasy. Within it, the many do not become one but become psychic material. An example of this process is memory. Anima and matter unite when psychic experiences are encoded in the brain cells of the physical

body, or any cells. Psychic experiences encompass all the manifestations of the imaginal life: there is fantasy in behavior, emotions, thoughts, convictions, etc. When you de-literalize your own fundamental beliefs about body, self, and world you learn to see through the mundane aspects of existence into the depths of its archetypal meaning and value.

Karl Pribram has suggested that memory is not stored in a particular cell, but is enfolded over the whole. This storage system resembles a hologram in its function. It might be considered as an information-processing system, but Pribram suggests that it is probably best not to speak of information-processing, but of image-processing. The term 'information' suggests that the sensory input has become divided into sections or alternatives, whereas image-processing implies a more holistic mechanism at work.

In therapy, this is why experiential therapies work on trauma. By moving through the imagery of what the experience is like, catharsis becomes possible. The image may be visual or visceral--it is a multi-sensory gestalt which includes all aspects of the psychophysical being. One example is muscle memory, or embedded tissue memory. Under imagery processing techniques these memories become available for review and transformation.

This holographic system is one view which is part of the more general "holographic concept of reality." In this new existential paradigm, we are not separate chemical entities, but interconnected webworks of wave-fronts in space. This is why, from the perspective of psyche, self and environment tend to meld together and synchronicity becomes the norm. The image is psyche and all forms of perception come through imagery. Consciousness always relates through metaphors of body-perception. It "sees" or "hears" with inner analogs of the natural senses. This connection of mind and body is rightly called psychosomatic.

Physicist David Bohm comments on the nature of mind and body:

In the implicate order we have to say that mind enfolds matter in general and therefore body in particular. Similarly, the body enfolds not only the mind but also in some sense the entire material universe...So we do not say that mind and body causally affect each other, but rather that the movements of both are the outcome of related projections of a common higher-dimensional ground.

As a human being takes part in the process of this totality, he is fundamentally changed in the very activity in which his aim is to change that reality which is the content of his consciousness. To fail to take this into account must inevitably lead one to serious and sustained confusion in all that one does.(2)

The realm of imagination is psychic reality. 'Psychic' means physical and mental. A life lived within the realm of imagination experiences the relationship between soul and spirit. This may be seen as a psychosomatic activity which supercedes a one-sided rationalism.

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- (1) James Hillman, "Anima II," *Spring Journal* 1974, Spring Pub., Dallas.
(2) David Bohm, *WHOLENESS AND THE IMPLICATE ORDER*, pp. 209-10.
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B. HERMETIC PHILOSOPHY AND THE DIAMOND BODY

Hermetic philosophy combines diverse disciplines. Hermes is the archetype of Magick, alchemy, and psychology. As physics drops its antiquated Apollonic orientation, it too may be seen as a mercurial path delving into the unknown. Science, in general, has traditionally been ascribed to the realm of Mercury.

Whether known as Hermes, Mercury, or Thoth, this archetypal power is Lord of Magick. He is a guide of souls into the underworld, or psyche. He is also a messenger of the gods, or archetypes. Communication between gods and men is generally through a Hermetic process.

Hermes is known as the maker of synchronicity. Personalities dominated by Hermes' perspective seem to be interested in the hidden side of things, the implicate aspect. They are carriers of the secret lore, of things that aren't on the surface. They expound and speculate about the nature of the unknown, transcending the ordinary boundaries of human understanding.

In its highest form, this Hermetic motivation may be seen in the activities of the physicists, psychologists, and occultists. In alchemy, Hermes is known as the spirit Mercurius.

Mercurius is a relevant symbol in our investigation of the Philosopher's Stone. The nexus of the Diamond Body is formed by superimposition of ALEPH and TAU. In Figure , Aleph is seen as the vertical axis with Tau being the center point, corresponding to the heart-center. Jung quotes from the "*Aurelia Occulta*" which calls Mercurius "*Azoth*":

For he is the A and O that is everywhere present. The philosophers have adorned (him) with the name Azoth, which is composed of the A and Z of the Latins, and the alpha and omega of the Greeks, and the Aleph and Tau of the Hebrews.

Israel Regardie, in *THE TREE OF LIFE*, (pg. 62) has equated Azoth with the Anima Mundi, which is the World Soul of Alchemy. He relates Azoth directly to electromagnetic (EM) fields. The phenomenon was known in the past as the Astral Light.

Mercurius, as an arcane substance, has diverse elements. The identity between Mercurius and the Philosopher's Stone becomes evident through the key words which describe him. This opens speculation on the relationship between Mercurius and the Diamond Body and V.E.M. The multiplex contents include:

ambiguity

analogue of Christ
beginning, middle, end of
work
child of the sun and moon
chthonic part of godhead
devil
duality
consists of opposites
Father-Mother
fourfold
husband and wife
lapis
life principle of tree
personification of unconscious
prima materia
redeeming psychopomp
represents individuation
process
revealer of divine secrets
spirit and soul of bodies
trickster
ultima materia
unity

Mercurius is also cognate with the anima mundi. Since Mercurius is the soul of the gold and silver, the conjunction of these two must be accomplished. This is the sacred marriage of the magician and his magickal sister. Mercury, as lapis, is prima materia and ultima materia: the goal of the Great Work. This magickal child is the intitial and end product. He is 0, The Fool, whose brand of lunacy James Hillman (1980) so aptly describes:

Insanity is essential to soul-making...brighter awareness through lunacy. Alchemical soul-making proposes that the final idea of Sun conjoined with Moon means nothing less and no other than a conditon of being in which solar brilliance and awareness and moon-madness are marvelously conjoined. The Mysterium Coniunctionis is illumined lunacy.(1)

We can develop both our mediumistic sensitivities and our psychological awareness. Thus, through meditation and imagination, we become adequate vessels to contain relationships with archetypal energies or powers. Because of the fundamental nature of psyche and the archetypal patterns, we can neither do nor imagine anything that is outside of the scope of the Gods.

In his four-fold nature, *Mercurius quadratus*, represents the lapis with the four elements. These elements correspond with the cardinal directions. They could also be seen as the four Jungian functions: intuition, thinking, feeling, and sensation. Mercurius forms the mid-point of the cosmic quaternity and represents the quinta essentia, the unification of the four elements.

This enfolds the implicate essence of the physical world, i.e. anima mundi, a modern representation of the Self, Self-as-Many. Hermetic philosophy attached the greatest importance to the Stone. Its importance surpassed all other concepts and symbols.

Alchemists strove for total union of opposites in symbolic form. This may be viewed metaphorically as the Vector Equilibrium Matrix. This union was characterized as material and spiritual, living as well as inert, masculine/feminine, young/old, and morally neutral.

This state is created through interaction of man and God. It is the re-union of the spirit and the body, which takes place in the retort, or vessel. The transformation culminates in the Chymical Marriage. Insights gained should be made real. The value of the Stone remains latent if it is not properly applied.

Both the soul and Mercurius were considered to be round in alchemy. Remember, the Diamond Body matrix represents 12 around 1 closest-packed-spheres. Jung states that "*In alchemy Mercurius is the rotundum, par excellence.*" Mercurius represents totality and wholeness. Gerhard Dorn, seventeenth century alchemist, called Mercurius "*the true hermaphroditic Adam and microcosm.*" Mercurius is thus seen as androgynous.

Mercurius, as the anima mundi, is inherent in all things in a latent state. The anima mundi is the feminine component of Mercurius. The conjunction is not always a direct union. The soul mediates between body and spirit, through the medium of Mercurius. Jung elaborates on his nature in *Mysterium Coniunctionis*:

In my special study of the subject I have pointed out that outwardly Mercurius corresponds to quicksilver but inwardly he is a "deus terrenus" and an anima mundi--in other words, that part of God which, when he "imagined" the world, was as it were left behind in his Creation or, like the Sophia of the Gnostics, got lost in Physis. Mercurius has the character which Dorn ascribes to the soul. He is "good with the good, evil with the evil," and thus occupies a middle position morally...In a psychological sense Mercurius represents the unconscious, for this is to all appearances that "spirit" which comes closest to organic matter and has all the paradoxical qualities attributed to Mercurius.(2)

We can summarize the various qualities of Mercurius as the Philosopher's Stone. These key descriptors must be satisfied by our contemporary model of the Stone. The lapis is a double thing formed of the union or coniunctio of opposites. It is:

1. called the androgyne and immortal child.
2. the unchangeable quality of the union of spirit and matter.
3. a rotundum, or round thing.
4. central circle, which is stone, gem, and yet not (naught).
5. composed of body and soul united to form a spirit.

6. Mercurius, a living being; the product of an act of fertilization.
7. fathered by the sun; mother is the moon.
8. a babe, stone, or pearl.
9. the mystical marriage: alchemist and his wife/soror mystica; wise man and prophetess; great mother and magician. *Coniunctio*.
10. able to multiply itself indefinitely (i.e. its geometry is expandable or contractable).

The Royal Marriage, or coniunctio is not accomplished by will. The Diamond Body includes marriages or union of opposites in all directions, between top (ego) and bottom (Self), between the four directional points, yielding six connected vertices. This figure is an octahedron.

The center is the point of immediate concern. It represents the fine point of the soul. It is both conscious and unconscious. It is bi-sexual. The transforming image combines opposites in one eloquent symbol. The Diamond Body resolves the multiplicity of archetypes into ordered groupings in imaginal space. This matrix, which extends in all directions including time, represents a diffuse awareness.

Psychologically, it creates and perpetuates a state of ultimate equilibration. It is a natural preparation for death, freeing one of emotional entanglement. A person who gains the ability to live with his instincts can also detach from them in a natural way. This form of integration is not heroic. There is no self-conquest toward perfection, but self-acceptance and relationship.

The Diamond Body visualization technique co-ordinates the manifold contents of the psyche. Realization of *ALEPH-TAU* unites us with the unconscious levels of our being. It is an ultimate aesthetic act. It sets up the conditions necessary for "immortality" of the soul by giving it access to sacred time and space.

The figure graphically depicted as the octahedron-within-a-cube (The Diamond Body) is a minimum structural matrix of the universe. The vector equilibrium matrix is a reciprocal depiction. Through it man is able to metaphorically experience macrocosm and microcosm.

The Diamond Body is a generator of magickal energy. It is an imaginal time/space machine. When the magician imagines himself within the matrix and centers in *ALEPH-TAU*, he is co-equivalent with *Hermes/Mercurius*--he is Lord of Magick.

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- (1) James Hillman, "*Silver and the White Earth*", Spring 1980, Spring Pub., Dallas.
 - (2) C.G. Jung, *MYSTERIUM CONIUNCTIONIS*, p. 490-91.

C. THE DIAMOND BODY IN QBL AND ALCHEMY

1. SEPHIR YETZIRAH: THE BOOK OF FORMATION:

There is an explicit link between the Diamond Body configuration (showing the atomic structure of diamond crystals) and a traditional meditation technique from Jewish mysticism. A description of the figure appears in the classical text, *SEPHIR YETZIRAH, THE BOOK OF FORMATION*.

THE SEPHIR YETZIRAH is a fundamental text of written Qabalah. Legend says the book was recorded by the Patriarch Abraham. Its lineage is supported by recent archeological discoveries. Chapter 5 of the Book of Formation details correspondences of the constellations with month of the calendar system in use at the time. This data has been analyzed as predating astronomical knowledge of the Precession of the Equinoxes. The correspondences synchronize during the time of Abraham, approximately 4,000 years ago.

Further support of this date is provided by the fact that the original text is inscribed in the Sinatic alphabet. This is comprised of the original Hebrew letters revealed to Abraham. It predates the square Aramaic letters used by Ezra the Scribe by more than a thousand years. Jewish scholar, Gershom Scholem makes a more conservative estimate on the antiquity of the book. He dates its composition between the third and sixth centuries. In any event, it is a magical treatise and a tool whose aim was speculative rather than ecstatic.

THE BOOK OF FORMATION describes the emanation of the ten spheres of the Tree of Life. The spheres are connected to one another by twenty-two paths, which correspond with the Hebrew letters (Path 0=Aleph, Path I=Beth, Path II=Gimel, Path III=Daleth, etc.). Together, the spheres and connecting paths form a map of the universe. The sacred letters are symbolic glyphs which represent sounds.

Both spheres and paths represent discrete domains which order diverse contents. The contents of any domain are determined by the archetypal dominant residing at the core of the content in question. In general, spheres represent modes-of-being, and paths represent transition stages, or gates between them.

Qabalah presents the individual soul as a Microcosm which is a reflection of the Celestial Man, or Macrocosm. Hermetic philosopher Aleister Crowley suggested that, "*The soul interprets the universe; the universe veils the soul.*" The universal man is also called Animus Mundi. The doctrine presented here is one of the primary examples of the Hermetic dictum, "*As above, so below.*" Through the identity of the individual with the universal, we have the option of participating consciously in the divine process of creation.

The individual, as a physio-spiritual entity is represented by the geometric configuration of the Tree of Life, pervading the human form. The spheres, or Sephiroth, are imaginal representations of a set of self-consistent worlds or planes of consciousness. There is orderly transition between them.

The twenty-two paths provide a means of accessing the connected series of experiences based on changing states-of-consciousness.

The perception of this process occurs through imagery. It is coordinated through the system of correspondences. It provides the most eloquent, elaborate, and comprehensive system for metaphorical perception of imaginal realms. Translating the message into a special language adapted to the channel's information rate is called coding.

Qabalah (QBL) is a coded form of information concerning self-realization and mystical experience which is suited specifically to the human receptor. In Hebrew numerology, QBL = 132 = "to receive." There are various spellings for Qabala or Kabbalah, but this consonants-only form yields the proper numerical equivalent.

Tree of Life modeling permits discreet focal points for easy, methodical concentration for long periods of time. The depth of differentiation of archetypes elaborated by this system categorizes, or modularizes, the characteristic experiences of various stages of mystical progress. See Table for a taxonomy of mystical states in relation to the spheres of the Tree of Life.

Different spheres are the domain of different divine attributes (for example, Chesed is the sphere of Mercy, Geburah is the sphere of Severity, etc.). The paths provide gateways to the discreet states of consciousness graphically depicted as the spheres.

With such an ancient tradition, QBL provides grounding for one's philosophy in a comprehensive range of highly developed and extensively tested disciplines. The letters of the sacred Hebrew alphabet are employed as tools in a wide variety of meditational and invocative techniques. Each letter has a tone associate with it, so the words and phrases may be sung.

Each letter or path corresponds explicitly with a number (i.e. Tiphareth = 6, Yesod = 9, Aleph = 1, Mem = 40, Shin = 300). Number and letter are alternative ways of depicting the same entity, or archetypal process. Mathematical manipulation of the Hebrew alphabet is a primary way of working within the system. (Complete numerical equivalents for the alphabet are included in Appendix B).

The mathematical science of Gematria allows a means of viewing the relationship between diverse groupings represented by the spheres and paths. Each letter has a numerical value which is qualitative not quantitative. Its function is to disclose intensities, valuation and rhythm.

Codified numerical equivalence between words may be discovered. For example, in Hebrew, both the word 'love' and the word 'unity' add to 13. Therefore, they are cognate. They express the same nature or quality. Each letter or number signifies that aspect of divinity which is inherent in it. The number of a word or phrase shows its quality and its relationship to other things and ideas.

Through the numerical value attached to words and phrases, one is able to see metaphorical equivalents among apparently unrelated concepts. Gematria is,

therefore, a primary tool for philosophical speculation in QBL. It provides access to unknown or implicate aspects of all-things-nameable. It helps one see what is not readily apparent. It accommodates as much depth and volume as a person's inner complexity brings to it.

Modern magickal practice has adopted the system presented in QBL as its basis. It uses the Tree of Life as a consciousness map. This is because it is comprehensive, eloquent, and extremely efficient. The occult deals primarily with realization of latent subconscious cognitive abilities. It is development in areas which were previously unknown (occulted or hidden) because they were unexplored.

QBL has two branches: speculative/philosophical and practical/magical. In terms of information processing QBL denotes channels and levels of observation. Paths are transmission channels. Spheres are levels of observation. The transmission channels are used to call benefic powers using the holy names of God and his angel mediators. QBL is an ancient information-processing system.

The only proper application of Magick is to influence the process of one's own psychological transformation. Magick, used solely for self-transformation, furthers religious needs. The path up the Middle Pillar of the Tree of Life shows successive purification of a soul on its journey to union with the ultimate, or Godhead. It is a middle path which shows a soul undaunted in its primary desire to return "home." There are other paths, to be sure, but none so direct, and therefore efficient.

THE BOOK OF FORMATION had the most dynamic effect on initiating speculative QBL. As old as the *SEPHIR YETZIRAH* may be, it seems that mystical experience of the geometrical figure we are calling the Diamond Body predates the composition of the book. The book is probably the exposition of a mystical system of standing tradition, which was only transmitted orally prior to the appearance of the text.

The mystics achieved a vision of a geometrical figure through meditation practice. This geometry was a 4-dimensional array of the holy letters. It is a geometrical picture of the creation or formation of the universe--an omniradiant event that continues to happen.

Those who engaged in this meditation form were known as Merkabah visionaries. They sought ecstatic direct visionary experience of the Throne Chariot of God. Abraham, Moses, Solomon, Ezekiel, Isaac, and St. John the Divine have been associated with Merkabah mysticism. Surely, as a rabbi, Jesus was familiar with this practice, also.

2. MERKABAH MYSTICISM, OLD AND NEW:

There is some extant literature concerning Merkabah Mysticism in addition to the *SEPHIR YETZIRAH*. The most important of these works are the Greater Hekhaloth and the Lesser Hekhaloth. Rabbinical commentary concerning the secrets of the Throne Chariot also exists. The majority of these works were not

designed for practical use by mystics. They described characteristic stages on the path to the vision of the Throne Chariot. They contain speculation rather than explicit instructions.

It is possible, however, to deduce certain requirements and procedures from these writings:

1. The aspirant must be at least 30 years old before his study of mysticism should be initiated. This ensures grounding in the day-to-day life and reduces the chances that the immature seeker desires transcendent escape from reality.

2. Specific moral qualities were required of candidates before the mystics were willing to reveal their secret knowledge, or Gnosis. We might assume that these qualities would include those of importance in the Torah, or Law.

3. Twelve to forty days of ascetic practices, including fasting and prayer, preceded the soul's penetration to the revelation of the Throne.

4. Techniques for facilitating the journey included hymns and songs, the recitation of secret or holy names of God, and magical seals to protect the aspirant. These seals warded off danger from demons and hostile angels and allowed further access, much as a key unlocks a door.

5. The posture recommended during meditation is to sit in a low chair, bend forward until the head rests on the knees. This posture enhanced the ability to experience altered states of consciousness through changes in blood flow and subtle vibrations induced in the skeletal system by reciting god names. Breathing becomes shallow in this position.

6. The further one progresses upon the path, the greater the dangers of psychological disintegration. The worthiness of the soul is tested on every level-- physical, emotional, intellectual, and spiritual. The Qabalistic practice of creating and dissolving images as containers for psychic forces acts as a protection against identification with, or deification of symbols. Such potent symbols of wholeness, such as the Tree of Life, are a danger in themselves as they promote the identification of the ego with the Self.

If the aspirant were unworthy, he could penetrate no further. The angels guarding the gates would confuse his mind and disturb his senses, (which shouldn't be too difficult after 40 days of fasting). This interference could include hallucinations (rather than visionary experience), and psychosomatic manifestations of discomfort. In the Eastern systems of meditation, these phenomena are regarded as blocks to the flow of Kundalini up the spine.

7. Once the ecstatic state has been attained by the mystic, he ascends through what were variously described as seven heavens or chambers. The soul ascends toward its original home. Counting from the bottom of the Tree of Life upwards, this would include the spheres of Malkuth through Chesed.

8. At this point the soul receives its revelation. It is the vision of God as King on His Throne. This vision of God as King is the magical image of the sphere Chesed, #4 on the Tree of Life. It is below the Abyss, where visionary I-Thou imagination is still possible. The gulf between the soul and God is not bridged below the Abyss. This meditation did not aspire to even an understanding of the true nature of God, let alone a reunion of the soul with Godhead. It was ecstatic, not transcendent.

This mystic path provided perception of the phenomena of the Throne-Chariot, the awful mystery that surrounds God's majesty. A voice is heard to speak from the "Throne of Fire." It conveys the secret of heaven and earth to the aspirant. It gives him the names of Knowledge, or Gnosis.

Use of this Knowledge could be viewed as the aspirant's creation of the sphere Daath. Daath is unique among the Sephiroth on the ascent up the Tree. In order for the initiate to experience Daath, he is required to first create it. This is unlike the other spheres, which are a priori givens. Experience of the reciprocal view of the Diamond Body figure brings one back onto the Middle Pillar on the threshold of the Abyss.

Meditation is a procedure. Daath, as a knowledge-contact, is a quantum change induced through Grace. It is God's answer to the call of the aspirant, and cannot be induced through effort alone. In creating a Daath state of consciousness, the aspirant has crossed 'an abyss' from a procedure to a grace.

In a classification of creative, psychedelic (mind-expanding), and unitive states, this development is best described as 'psychedelic.' The characteristic experience is a transient altered state of consciousness. This ecstasy includes the experience of loss of self, time, or space. There is an infusion of a special knowledge, and a purification of self.

The original Merkabah mystics did not aspire for this vision with intense love of God. They did not concern themselves with speculation concerning the immanence of God in matter, through the *Shekinah*. Their interest lay in the direct experiential process of contemplating their mandala-symbol until it took on a life of its own--a divine life. This entity projects a revelatory character.

But the immanence of God-in-matter is a philosophical issue open to speculation. The geometry of the Throne-Chariot or Diamond Body relates directly to the formation of matter. We might speculate that these geometrical representations of archetypal relationships have a great deal to do with fundamental patterns underlying all matter, even if they are only Ruachian models.

The figure of the Throne-Chariot (and its reciprocal, the Vector Equilibrium Matrix) and the basic blueprint for the formation of matter are not distinct and separate. This threshold of matter, or DAATH, the Invisible Sphere does disclose the minimum conceptual elements necessary to depict the spiritual order inherent in matter.

There is no way to intellectually grasp Reality beyond the Abyss. Penetration into these realms requires intense devotion or love. For any information regarding these planes we must rely on the testimony of saints who have journeys in consciousness to these realms.

Knowledge (Gnosis or Daath) takes the soul to the uppermost reaches of the causal plane. This is the limit to the realm of the mind. There is neither mind nor matter across the Abyss. Here is the limit of the mind's ability to comprehend divine order conceptually. It is the emptying out of symbolic meaning in preparation for direct experience of the Reality of God, through Union.

Several graphic depictions of the descriptions of the Throne-Chariot given in the *SEPHIR YETZIRAH* have been developed through the years by Jews and occultists.

A group known as the Chariot of Fire from Los Angeles has used the information to depict a system in which all the paths are compacted onto an octahedron. In this arrangement, the seven double letters are paths connecting the six spheres which correspond to the cardinal directions, above and below, and the central Inner Court. This Inner Court is comprised of the three Mother letters--*Aleph, Mem, and Shin*--plus the nexus point which is composed of *Aleph/Tau*.

In his book, *THE TAROT* (1947), Paul Foster Case developed an array which shows closer harmony with the closest-packed spheres of the diamond structure. Here the paths are dispersed over the octahedron and its containing cube (Figure 4).

It is important to include both the octahedron and the cube in the modeling. When both are visualized, the figure has the ability to reproduce itself indefinitely. It generates and regenerates itself mathematically, like a fractal. It projects outward or inward in an infinite geometrical progression.

There is an infinite series of octahedrons within cubes within octahedrons within cubes. This is another way of viewing the matrix structure which has been described elsewhere as the Vector Equilibrium Matrix.

Case showed the paths, or keys, in relationship to the Bravais lattice. He did not add the connecting lines which reveal the octahedron within the Cube of Space. This may have been intentional, as he felt careful study of the figure would reveal much to the discerning reader. Perhaps more than he might have imagined...

In any event, this array shows the three "Mother letters" as Cartesian coordinates. These represent the three dimensions, the fourth being the synchronous *Aleph/Tau* in the center. This center is the holy place in the midst of manifestation which shows forth the sacred aspect of time.

The planetary gates are shown as the central points of the six plane faces of the cube. The rest of the paths are shown on the matrix of the cube edges.

Case, true to prevailing attitudes in occultists of his day, attempted to obscure the proper correspondences for the Cube. Most of the attributions agree with the text of

the *SEPHIR YETZIRAH*. However, two letters are switched. *Lamed* (Key 11, L) is ascribed to the compass direction Northwest; Southwest is listed as *Nun* (Key 13, N).

The proper order, according to *THE BOOK OF FORMATION*, is Northwest = N, *Nun*; Southwest = L, *Lamed*.

Past generations of occultists would frequently present most of their information accurately. However, they would change at least one element. They reasoned that the serious student would discover the discrepancies through astute observation.

This practice was intended to preserve the highly effective magical techniques from easy access by the vulgar, who might misapply them. This attitude hardly seems appropriate today. There are competent people who might appreciate magick as a highly developed art-form if the system were presented in a consistent, credible manner.

The vulgar, or dilettante, can never apply even the most profound teaching. It requires the discipline of follow-through. Psyche's secrets are safe because they are not communicable to those who haven't experienced them. They are initiations.

3. INFORMATION CODING AND ACCESS-STATES

The Hebrew alphabet, of all languages, has certain qualities which make it extremely efficient for the transmission of information with minimal distortion. Its sacred aspect may be shown best by examination of the inherent mathematical superiority of the language.

Redundancy percents allow us to evaluate relative efficiencies of various languages or codes. The frequency of appearance of the various letters of an alphabet determines the relative redundancy.

The constraints imposed by the language itself furnish the gross redundancy level. For example: the redundancy of French letters is 19%, relative redundancy of Hebrew letters is 10.4%. Gross redundancy of the French language is around 45%, that of English is 50%. Here, classical Hebrew shows its remarkable efficiency. This is largely because it is constituted of a majority of consonants.

A remarkable consequence of redundancy nicely illustrates the over-all character of our intuitive knowledge of language. It is the possibility of making crosswords, that is, of attaching each letter to systems of different n-gram probabilities. If the redundancy were zero, any collection of letters would be a possible and meaningful message, as is the case with certain secret telegraph codes used in commerce. If the redundancy is too high, the structure of the languages imposes too rigorous internal constraints. In order for two-dimensional crosswords to be possible, redundancy must be at most 50 per cent; three-dimensional crosswords are possible if the redundancy does not exceed 33 per cent. Thus from the above example, it should be possible to make three-dimensional crosswords in classical Hebrew. Such crosswords have been realized by H. Bluhme in Munich.(1)

There are limits in any given access-state which depend upon the method of decoding information transmitted. All symbolic representations are encoded information. All other things being equal, the most original message is composed in a system such that all the symbols are equiprobable. In classical Hebrew, exclusive use of consonants (except *vav* and *yod*) creates a more nearly equal distribution of written symbols and a majority of words composed of three root letters.

In any limited system, prior events effect the probability of occurrence of any given symbol. The probability of a symbol depends upon preceding symbols in the sequence. Within a given alphabet there are constraints upon maximum information flow. These are related to relative information and redundancy levels.

There are limits imposed on the flow of perceptible information whether it is received via imagery or language. The constraints of language are greater. The repertoire of possibilities is smaller. The amount of constraint imposed by grammar is enormous. A holographic display, like the Throne-Chariot or Cube of Space displays more simultaneous possibilities.

Assuming the possibility and desirability of communicating with entities in other dimensions, a message of maximum information may appear senseless if the individual does not have a coherent system to decode it. Redundancy, or chronic reappearance, provides a guarantee against errors in transmission. This fact of information-processing may bear on the chronic reappearance of archetypes in an infinite variety of forms.

Speculative QBL cuts through the complexity of the experience of archetypal reality. It postulates one form of order within the chaos of ever-shifting imagery, a way of uniting the living opposites. It provides an intelligible conception which schematizes reality. It offers the Tree of Life as its comprehensive consciousness map of the human psyche, realm of spirit, and the Creation.

The philosophical concept of the Philosopher's Stone or Diamond Body implies the access-state represented in QBL as Tiphareth, the heart-center. In mystical experience, an enormous amount of emotional and cognitive information is received in a short period of time.

While this enlightenment, in theory, is a complete experience, it requires time to digest and decode. It would be an error to assume that an individual--a psycho-physiological mechanism--could instantly absorb an unlimited quantity of information. No individual may become omniscient.

There is an upper limit to the apprehension of information in any given instant. A maximum flow of perceptible information per unit of time exists. This limit has been measured at 10 to 20 bits per second (Quastler, 1955). Perception actually takes place through a process of filtering, or perceptual selection.

Too large a flow of information is perceived as absence of structure or internal information. IT APPEARS AS CHAOS. This becomes evident in therapy when clients journey deep into their dreams. In following the images down deeper, they

ultimately find swirling, funnelling images or great voids. Just past this point in the journey is the healing place.

This chaos is perhaps the major disorientation experienced by those unprepared for the crossing of the Abyss. Therefore, if our intent is to extend our perceptual field, it is advantageous to channel information by providing a system and boundaries. This focuses our perceptions on a digestible amount of data. In other words, intuitive perceptions from within can be grounded in daily life.

Tree of Life modeling allows for quantized conceptualization of mystical experiences. Toward this end, the coded system uses the qualitative distinctions of spheres, paths, letters, numbers and other components of the correspondence system.

4. THE HEBREW ALPHABET

[Hebrew Alphabet]

Since all the letters of the Hebrew alphabet are glyphs for the sounds they represent, mystical use of this alphabet may be seen as the synchronous union of the soul with the sound-current. This is a time-honored tradition which has to do with the nature of the Word, or Logos, as an inner mystical "sound" which carries the aspirant's soul up into the higher planes like a magnet. (see *VOICE OF THE SILENCE*, by Mdm. Blavatsky).

We may infer, from research in information theory, that maximum originality or information is transported by messages in which all symbols have an equal probability. An equal distribution of probabilities furnishes in effect the maximum of choice. Maximal transference of information is only possible for a receptor who is totally ignorant of what might be transmitted (beginner's mind).

Images are more fundamental than symbols. They present themselves prior to the focusing on various symbols. Imaginal psychology is trying to re-capture this primacy of image over symbol. An image preserves the specific context, mood, and unique qualities by holding symbols in the subtle net, or matrix, of imaginal life, which is its underlying reality. We have become accustomed to asking the rote meaning of things when it comes to symbols and dreams. This reductionistic approach loses contact with the unknown aspect of the autonomous stream of imagery.

In anima-consciousness (being-in-soul), imagery takes priority over symbol. The repertoire of images is infinite. The gamut of archetypal potentials interact with one another in eternally unique, creative acts. These creative acts, perceived via imagery (through metaphorical sensory perception), do not symbolize something else.

In a polytheistic orientation, all gods are co-equal and co-temporaneous. They may or may-not all be coordinated by some over-arching principle. They have equal potential for manifestation in any given moment. They operate in the matrix of the four planes of Reality. This is the soul-field. It encompasses physical, emotional,

intellectual, and spiritual (archetypal) levels. It is a direct personal experience of the unknown.

Individuals do not have either the emotional or intellectual capacity to comprehend "God" as an all-inclusive principle. We may, however, differentiate discreet aspects of the psyche in digestible quanta. God has various divine attributes, or characteristics.

In polytheistic systems, these are presented as various gods and goddesses. Each is sovereign in its realm, and has the capacity to influence the human body through symptoms, behavior, emotions, thoughts or ideas, convictions, and spiritual experience. Existing independent of space and time, they are equiprobable.

Thus an image is not pre-determined or predictable. It is direct perceptual experience of the unknown, and in fact, unknowable. The appearance of a symbol, however, allows us to infer manifestation of corresponding processes which occur either in space or time.

The symbol is both a primitive expression of the unconscious and an idea corresponding to the highest intuitions of ego-consciousness.

But symbols do not appear in isolation. Symbols are held enfolded in the net of an image which probably includes visceral sensations. A visual image may entrain other senses like taste or smell. The appearance of symbols in anyone's psyche is predictable. What symbols will appear and how they will be presented in multi-sensory imagery is not predictable, much less what they mean.

The predictability of symbols (their tendency to recur cross-culturally in mankind's psyche) and the unique quality of symbols contained in imagery show a relationship between explicate and implicate order. They are fundamental components in the language of the psyche. Symbols are best described or catalogued by archetypal processes and their ruling god or goddess, with their attendant attributes and correspondences.

Since all parts of the process are inferred, or enfolded by a symbol, they allow us to predict future occurrences within the framework of probability. Given an elaborate, but limited repertoire of symbols, there is an upper limit to information output. Uniform distribution, or equiprobability, offers the maximum possible choice in constructing a message. Shannon, following remarks of Boltzman and Szilard, has given the name maximum entropy to this maximum information. In other words-- chaos.

In a mystical experience, there is a communication between a human receptor and a god-form. The Jewish system is so finely tuned that total enlightenment can be achieved through meditation on a single letter, according to their elders. The archetype makes its presence known through corresponding imagery. To simulate its eternal aspect, it re-iterates itself over-and-over in a symbiotic relationship with humanity.

In other words, while we cannot assimilate the maximum information which is the archetype itself, we can decode an optimal amount of relative information through the correspondence system. This is accomplished by "seeing through" the literal aspects of life into the dimension of psyche and the gods. It is accomplished simply by noticing.

Repetition, or redundancy, increases the possibility that the message will be noticed. How many times have we realized there was a lesson to be learned in an experience that we should have gotten earlier in life? By noticing the archetype's influence, you take up a conscious relationship with it. To give it attention is to give it worship, but not necessarily in a formal, religious way.

In information theory, a message has a degree of predictability which is in ratio to its degree of coherence, or regularity. Foresight is enhanced by knowledge of which symbols are component parts of each archetypal pattern. It is a clue you are dealing with Apollo, for example, when you have fantasies of the omnipotence of science, or fascinations with "solar" occupations like music or healing.

The symbols may be bolder or more primal, like a mandala, totem animal, or just a color. If one of the symbols presents itself, there is a high degree of probability others with the same theme will follow, reiterating the message. The presence of the entire process is inferred from viewing a part of it, like a hologram. This part, which comes into observation through the soul, is the unfolding of a portion of the implicate order.

(1) Abraham Moles, *INFORMATION THEORY AND ESTHETIC PERCEPTION*, Urbana, Chicago and London, University of Illinois Press, 1968.

5. THE SELF, ALEPH/TAU, THE NEXUS OF THE DIAMOND BODY

Aleph, the beginning, and Tau, the end are simultaneously attributed to the center of the Diamond Body or Throne-Chariot. This center with its coordinated opposites radiantly arrayed around about itself, is an archetype of the Self.

There is a rhythm or periodicity in the unfolding of psychic processes. A knowledge of the wavelength or cycle of this process makes accurate prediction of its behavior more likely. Phenomena perceptible to the human senses always display a form of periodicity.

Only periodic or regular repetition provokes expectation. Expectation is an essential condition to foreknowledge. Looking forward is expectation, not certainty. Archetypal processes are re-current or chronic. This chronicity, or tendency to continually re-appear over time describes the fundamental manifestation of archetypes in the space/time continuum.

The archetypal process is a special case event, or series of events. It occurs in time. For example: there are several ways for the soul to experience ascent up the Tree of Life. This is enactment of the archetype of "The Way." As in the case of psychological individuation, it is unique for each individual--an experiential journey through many states of consciousness.

Pathworking can take place within the context of various religions--Christian, Hindu, Buddhist, neo-pagan, etc. It could be approached as a spiritual science. A wide assortment of entities might be encountered, etc. These variations of detail constitute the unfolding of an archetypal process. Body and mind are affected by the archetype's attempt to manifest itself in space and time.

...archetypal psychology does not see psyche and soma working as Cartesian opposites in the first place. What is so surprising about synchronicity once one assumes that soma is subsumed by psyche? There is no need to work out a factor called synchronicity--only, we might suggest, the basic factor of "chronicity", which is the time of the soul itself. Instead of saying spookily, that some events are "synchronistic", we should see all events as "chronic." It is, after all, only with Cartesian dualism that one needs a concept of synchronicity--if body is taken as fantasy, it too is soul and a dualism is uncalled for. There is nothing to be "joined." (1)

The recurrence or redundancy of phenomena becomes apparent after a period of observation. Archetypal phenomena become expected when you learn to see them everywhere, operating all the time.

There is a repertoire of archetypal processes, which unfold themselves time and again. These phenomena can be viewed from a perspective termed synchronicity. We are not witnessing "meaningful but acausal connectedness," but recurrent patterns with corresponding details. It is probable, therefore expected, that the whole entourage of correspondences will follow in the wake of an archetypal activation. For example, if a man is relating to his anima, virtually everything in his moods, environment, dreams, and thoughts will feed this back to him, in a subtle disguise.

A person who takes a sudden interest in "expanding his consciousness" might be seen as being under the influence of Apollo. The correspondences or keywords attached to this type of temperament allow us to make certain generalizations concerning future psychic processes.

We would expect an increase in values attributed to such qualities as light, clarity, and truth. The principle of rational consciousness might be held in one-sided esteem. Involvements with music or medicine could occur. The creative imagination would stir with inspiration as the result. The intensity of these experiences might be frightening. Dream figures might include fair-haired youths, fantasies of illumination, etc.

Any or all of these characteristic experiences might precipitate into the life-story of the individual. But this is more than a meaningful coincidence. It is an expected unfoldment of an archetypal process by an aware observer. The details of the enactment remain unique and unknown, but the characteristics of the major recurrent patterns are the same.

The soul enfolds extremes. In the matrix of the soul-field one can embrace conflicting viewpoints, and hold those modes of consciousness simultaneously. This is a form of the union of opposites. To continue the above example: the individual might become aware of his inherent Dionysian aspect (which is the counterpart of Apollo). Instead of experiencing conflict, he might develop appreciation of both modes of being.

Magickal use of symbols in ceremony ignites unfoldment of the "process" which is encoded in the symbol. The process functions through visualization. Libido, or psychic energy or magical Will, is consciously poured into the unconscious in order to activate it.

The experience of the Diamond Body meditation produces congruence of the letters ALEPH/TAU, the beginning and the end. Aleph/Tau might be seen as the psychic reality which combined appear as "synchronicity/chronicity." This intimates something about the cyclic or recurrent nature of time.

Aleph, as Air, permeates the whole Cube. Aleph, the airy "breath spirit" Mercurius, is the vertical axis of the Diamond Body. The path indicates a "trickster" aspect through its correspondence with the planet Uranus, unexpected meaningful connectedness.

Synchronicity helps explain the subjective experience, so important in life of "meaningful coincidence." It also provides a hypothesis for understanding divination in astrology, tarot, and the like. It does not explain the effect of magic in invoking forces, changing patterns through ritual, effecting healing or fulfilling desires. (2)

These effects of Magick are produced through the magician's relationship to his "will." His ability to change things is in direct proportion to the amount of psychic energy he can free-up and focus on his desire for transformation.

This "energized enthusiasm" is a creative act which can also be accomplished by generating libido through a meditation technique. Most commonly, a psychotronic machine, or meditation "device" is employed. Examples of such devices are the Middle Pillar Exercise, Sex Magick operations, and the Diamond Body Exercise.

This "will" consists of ego-consciousness making a free choice to work with the subconscious toward an end, the True Will. The True Will is the expression of highest inner aspiration. Consistent activity in this direction is the Great Work, the opus of soul-making.

The main method used is to place one's magickal practice in synch with psyche's rhythmical transformation processes. These include seasonal changes, lunar tides, biorhythms, and brainwaves. Most of these systems are related to electromagnetic (EM) fields.

EM fields are seen to control, manipulate, and direct internal state functions and chemistry. By focused attention, it is possible to generate "standing wave" patterns in both the brain and the body. Those which resonate with higher systems can produce dramatic change. Such a higher system is the electrostatic field formed in the ionosphere's cavity around the earth. It is possible to create a resonance between this field and that of an individual body/mind.

Ego-consciousness and anima-consciousness together represent psychic reality. The Diamond Body, as a paradigm, contains both in Aleph/Tau. Aleph, the Middle Pillar of the Diamond Body, is formed of the joining of I, THE MAGICIAN and II, THE HIGH PRIESTESS (Mercury and the Moon). Add Shin (Spirit) and Mem (Water) and the gate Tau (Time) opens.

Tau is corresponded with both Earth and Saturn. Saturn reminds us of the Greek god, Chronos, whose connection with "chronicity" seems evident. Saturn, in astrology, is also associated with the ego and will. It is also associated with the limiting factor of time, the boundary conditions. Chronicity is sacred time (Chronos) appearing as multiple recurrence. Tau, as Saturn (Time) is the gateway to imaginal space (KEY XXI, THE UNIVERSE).

The "nexus point", ALEPH/TAU, is the Magickal Child of the union between THE MAGICIAN and THE HIGH PRIESTESS. It partakes of the nature of both. It is androgynous. The will brings the consciousness into synch with recurrent patterns which pulse through the psychic field. ALEPH/TAU is "where it's A-T."

We can experience simultaneity of a mystical level of consciousness and the critical, interpretative level of consciousness. This is best achieved through parallel experience on the cognitive (knowledge) level and affective (experiential) level. ALEPH/TAU summarizes the entire Diamond Body figure. All the letters, in fact the entire Creation are enfolded in this central shrine.

If cosmos is seen as the result of the creation of language, meditation on the Hebrew letters within the Diamond Body matrix is a sacred paradigm, par excellence.

A creation implies a superabundance of reality, in other words an irruption of the sacred into the real. It follows that every construction or fabrication has the cosmogony as paradigmatic model. The creation of the world becomes the archetype of every human gesture, whatever its plane of reference may be. (3)

The Diamond Body figure is a multidimensional mandala. It is more than a mental construct, since it is the geometrical heart of atomic structure. A mandala, in function, is essentially the same as magic circle. Mandalas have been used extensively for magically acquiring information about the rationally unknowable.

They have been used not only as concentration techniques, but also as tools for parapsychological experiments.

A modern example of this occurred during studies at Maimonides Dream Labs. Stanley Krippner and Montague Ullman were trying to impress certain information on an individual's dream. They found that an individual, being monitored for dream states, could incorporate a mandala, (which was concentrated on by another subject), into his dream. This led to their famous theory on dream telepathy.

Jung has equated the mandala (inner psychic aspect) with synchronistic phenomena (parapsychological equivalent). In alchemy, this is known as the experience of the *Unus Mundus*, or One World. It is the unification of body, soul, and spirit.

In the past, such magicians as Zosimos and Bruno attempted to combine these two equivalents into a unitary reality. One need only construct a mandala, which via synchronicity yields parapsychological "knowledge" or access.

The crucial ingredient is an act of personal intervention by the magician in a given moment of time. When the individual confronts the continuum, the implicate order emerges from its latent state--it emanates forth. One experiences knowledge of immortality and gains access to sacred time/space, which is essentially an escape from time. The time-scale of the archetypes is eternal, because only form is involved in time. All forms are born, die, and are time-bound.

ALEPH/TAU is the nexus-point of the operation. It is the point of maximum in-between-ness. TAU corresponds, in the Diamond Body figure, with the heart-center or Tiphareth. This is the central sphere on the Tree of Life, and the central sphere of the group of closest-packed-spheres in our model. The heart-center, Tiphareth, is the Philosopher's Stone.

It is the enlivening of that part of the soul known as the Ruach, the Moral Soul. The heart (Tau) of the Heart (Tiphareth) is beyond time. The Ruach, itself is alleged to stay with the body at death, and is transcended in the Neshamah grade of the soul. In the qabalistic tradition, it is possible to meet the Neshamah (or soul) face to face before death. The union of mystic and soul restores the divine order. This soul and the World Soul are synonymous.

"Finding" or "attaining" the Stone is one thing. However, the "application" of the Stone is its use as a magickal tool.

Combining solar-consciousness gained at Tiphareth, with the twilight or anima-consciousness of THE HIGH PRIESTESS (Path II, GIMEL) gives one access to the Invisible Sefhira DAATH. This sphere is not an a priori given on the Tree of Life. It is not an archetype like the other spheres. It is characterized as the gate to an altogether different dimension.

In order to experience it, the magician must first create it on his ascent up the Tree of Life. The name of DAATH is "Knowledge." This is knowledge in the merging sense, such as Adam knew Eve. It is "gnosis," a personal experience of divinity not

mediated by religious authorities. The experience is of mutual recognition between god and man.

"Knowledge" is not a thing-in-itself; it is rightly denied a place on the tree...Knowledge, so far as it exists at all, even as a statement of relation, is no more than a momentary phenomena of consciousness. The proposition vanishes automatically as it is assimilated. (4)

Therefore, this knowledge or access state, which is reached by uniting with one's Self, is the state of maximum information flow. One is, in that instant, a Babe in the Abyss of the transcendent imagination (*Shekinah*). The gulf between a meditative procedure and the grace of God is crossed. When one is ignorant of the possibilities, all symbols are equiprobable (i.e. THE FOOL). The vehicle of consciousness upgrades from *Ruach* to *Neshamah*, which is known through the *Shekinah*.

Maximum information flow contains so much information that it appears as chaos. As soon as this "Knowledge" begins to be processed in images, we are dealing with particularized information, not a concept or experience of Knowledge-as-a-body, per se. We are now dealing with relative quantities of information processing. The processing is experienced as space/time.

The practical application of the Stone has enormous value. It gives breadth and depth to one's magickal practice. According to Israel Regardie,

The place of balanced power from which the working of the opposites may correctly be viewed, is the implication of Daas, [Daath]. It is shadowy and the word is used advisedly...for most have not cultivated the difficult art of avoiding the opposites...it is a new factor of adaptation or equilibrium, especially between the two broad divisions of consciousness--the ego on the one hand with its desire for adjustment to modern life with its refined and non-natural conditions, and on the other hand with the superficial levels of the instinctual life, concerned with primitive things, of self-assertion, and the unbridled gratification of its every whim and caprice. It is this new factor of adjustment which comprises the principle impetus to what has been called the Golden Flower, growth of the Red Rose upon the Cross of Gold, Stone of the Philosophers, medicine of metals. (5)

Paradoxically, he says elsewhere

Some Qabalists postulate a Sephirah named Daath, or Knowledge, as being the child of Binah and Chokmah, or a sublimation of the Ruach, supposed to appear in the Abyss in the course of man's evolution as an evolved faculty. It is a false Sephirah, however, and the Sepher Yetsirah, in anticipation, most emphatically warns us that 'Ten are the ineffable Sephiroes. Ten and not nine. Ten and not eleven. Understand with Wisdom, and apprehend with care.' It is a non-existent Sephirah because, for one thing, Knowledge when examined contains within itself--as the progeny of Ruach--the same element of self-contradiction, and being situate in the Abyss, dispersion and so of self-

destruction.

It is false, because as soon as knowledge is critically and logically analyzed, it breaks up into the dust and sand of the Abyss.

The unity of the various faculties just mentioned, however, comprises the Ruach which is called the Human Soul. (6)

Saints tell us there are two parts to the experience of Daath. The lower one has a downward tendency and creates the phenomenal world of the lower universe. This experience has to do with the subconscious mind of God, and has been termed the Dark Night of the Soul. The other experience at this level is connected with Kether and draws us upward. The soul becomes pure and chaste (as symbolized by THE HIGH PRIESTESS path) and loses worldly desires. It begins taking the pearls (pearls correspond to KEY II) of God's Holy Name.

ALEPH/TAU reminds us that the Diamond Body Meditation is a circular process of imagination. It does not run down (the process of radiation or entropy) because it draws continually from the free-energy of the archetypes themselves. It is a form of alchemical circulatio.

The Diamond Body Exercise is a geometrical description of Tiphareth. The Vector Equilibrium Matrix is an excellent metaphorical description of Daath. The V.E.M. permits conceptual coordination among opposites. It represents a sort of "omnicomprehension." It is multi-directional. We might speculate that here there is "zero-error" and "zero-time." Through this model, we experientially comprehend the word Universe.

When one uses both ego- and anima-consciousness as alternatives, there is a natural balancing which occurs. Binocular vision includes the eye of both scientist and mystic. The HIGH PRIESTESS represents the Anima Mundi or World Soul. She is the channel for descending and ascending energies. This process is eternal and does not degrade because entropy and negentropy are produced equally. It is an interplay of chaos creating order, yielding to chaos for re-structuring, then chaos self-generating new order.

A system holds together because it contains more gravitational coherence than radiation of energy. This coherence is best described as the love of the various components for one another, whether they be sub-atomic particles, molecules, humans, or gods.

Disorder emerges because of entropy produced during ordering processes. Breaking down the old order makes room for entirely new systems and structures--new order, which cannot come about without de-structuring. Order, in this sense, corresponds with explicate, ego-consciousness. This entropy emerges causally as the result of linear or directed thinking. Alchemical thinking is not linear, but circulatory.

- (1) Charles Boer and Peter Kugler, "Archetypal Psychology is Mythical Realism"
 - (2) J. Marvin Spiegelman, "Psychology and the Occult", SPRING 1976, Dallas, Spring Publications, 1976.
 - (3) Mircea Eliade, THE SACRED AND THE PROFANE
 - (4) Aleister Crowley, THE LAW IS FOR ALL
 - (5) Israel Regardie, THE MIDDLE PILLAR, Llewellyn (St. Paul, MN), p113
 - (6) Israel Regardie, GARDEN OF POMEGRANATES, Llewellyn (St. Paul, MN), pp.102-103.
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6. MEDITATIONAL USE OF THE DIAMOND BODY: CIRCULATIO

Circulatio, or circulation of the light, combines the alchemical operations of sublimatio and coagulatio. Sublimation means generally to have an ennobling effect, and coagulation means to solidify.

During circulatio, one sublimates body and coagulates spirit. Circulation around the aspects of being leads to an equilibrium where one is contained within the opposites. This containment is graphically shown with the Vector Equilibrium Matrix.

This balancing is a delicate process. It must be performed by the right person at the right time.

Sublimatio consists of spirit and soul ascending from lower to higher in the imaginal realm. Through it, the spirit hidden in matter becomes visible. Sublimatio is the alchemical form of resurrection.

According to Edward Edinger, in *EGO AND ARCHETYPE*:

Sublimatio, psychologically, is the process of raising concrete, personal experience to a higher level, a level of abstract or universal truth. Coagulatio, in contrast, is the concretization or personal realization of an archetypal image.(1)

Sublimatio is a vertical, solar activity (represented in the Diamond Body as THE MAGICIAN). Coagulatio is feminine, or lunar (represented by the HIGH PRIESTESS). Excess quantities of either of these potencies may have destructive effects. The solar-libido, which is creative and life-promoting, may be experienced as scorching dryness or fiery anger. The lunar-libido also has negative forms. These modes of psychic energy have a wide range of power.

The congealing, benumbing effect of the lunar quality is an extreme form of the feminine principle to promote coagulatio. Images and urges of a spiritual nature which would prefer to soar unfettered by the earth are obliged by the feminine Eros principle to become related to personal, concrete reality. If the ego is too far removed from such reality it will experience the encounter with the feminine as a paralyzing crash to earth.

It can be quite helpful to realize that the damaging effects of the dangerous lunar power and the destructive solar power are, nevertheless, aspects of the Philosopher's Stone. When one is recuperating from the effects of an encounter with either of these potencies, it helps in maintaining one's orientation and perspective to know that what he is suffering is from the Stone itself. Anyone who would seek the Philosopher's Stone is bound, repeatedly, to be a victim of one of its partial aspects. These happenings constitute the alchemical operations which gradually bring about the transformation. But the operations are on ourselves.(2)

Eventually (even-tau-ally), the solar-principle provides an increase in understanding and an expanded field of awareness. The Stone's lunar portion materializes elusive intuitions and spiritual potential. One submits willingly to the transpersonal totality of psyche.

The royal marriage of THE MAGICIAN and HIGH PRIESTESS produces the Philosopher's Stone through circulation.

Spirit penetrates soul, and soul envelops spirit. When spirit and soul unite thoughts are immobilized. It is much like the moment of consummation in Sex Magick. The soul "crystallizes", and becomes tuned to receive the divine. Spirit becomes an effective influence in the personality. This is real-I-zation of the Diamond Body, or Self. The phenomena which used to be experienced as (eternal or internal) light is now perceived as psychic revelation.

Sublimatio means to raise or ennoble. Sublimatio is the vertical, Middle path and corresponds with the element Air. In QBL, *Shekinah* is the Middle Pillar. In psychology, alchemy and magick, it is the *Anima Mundi*. She mediates the ascents and descents of the soul and spirit. Through her, the ten spheres of the Tree of Life slowly sublimate into Kether, the Crown (and Primordial Air). The "ascents and descents" of the soul are characterized in ancient lore as Angels. An example of this imagery is the story of Jacob's Ladder.

The Supernal Triad (the top three spheres of the Tree of Life) represents the three aspects of knowledge: the Crown, Wisdom (the Knower), and Understanding (that which is known). In Kether, the Crown, all opposites reside in total union. It reconciles oppositions which are distributed throughout the other spheres.

In alchemical thought, one may be redeemed through this self-knowledge. But there is great danger in direct revelation of the archetypal psyche. The danger lies in calling up the pure archetype, which the ego-consciousness is never able to assimilate or integrate.

If one succumbs to the disintegrative effect, the personality is annihilated in the Abyss of the transcendent imagination. This dissolution has been likened to drowning. The alternate is release from the personal ego attitude and a pro-active move toward participation within the archetypal dimension.

Dreams, active imagination, and the practice of Theurgy or Ceremonial Magick may all be seen as forms of coagulatio. In the process of circulatio, there is a resurrection of the Soul of Body. Images are an expedient mode of access to the knowledge of the soul, as it circulates rhythmically throughout every cell of the body.

The body becomes subtle and spirit gains body. One is able to maintain daily functions in the ordinary world without losing intimate contact with the archetypal dimension. In fact, this connectedness to daily life is essential to balance soul-travel in archetypal realms. Maintain ordinary pursuits except during the allotted meditation period.

This indirect penetration to the core-of-being produces fulfillment. One may use conscious, purposeful action to intentionally produce experience of unconscious non-action which is purposeless. This is a natural preparation for death, the experience of awareness without the constraints of time/space.

The dynamic activity associated with ego-consciousness (the desire to know, to penetrate and illumine) culminates in a cessation of effort. The rational process of controlling imagination defers to another power, the autonomy of the stream of consciousness.

This experience of silence and tranquility is known as Sophia, or Divine Wisdom. This means there is an emptying of the personal attachments of the ego. We then experience a timeless incarnation of the universal aspect of being.

The Merkabah mystics had one goal: entry into the throne-world of the Merkabah, or Chariot of Fire (Diamond Body). They passed through the seven lowest spheres of the Tree of Life before they gained admittance. Using common shamanic methods to achieve a trance state, they sent their souls upward or downward to pierce through the veil surrounding the Throne Chariot.

The devotee sought nothing more than the vision of the Merkabah. No explicit doctrinal statements beyond accounts of their journeys to the heavens grew out of the experience, nor do we find the slightest hint of a developed system beyond that of simple shamanism and the later involvement with magic. The Merkabah-rider did not attempt to see beyond the throne-kingdom or question its nature and origin. It was there. It was to be experienced, and nothing more...no specific mention is made about the precise nature of the transformation which the Merkabah-rider underwent.(3)

These mystics threw their souls headlong into the fire of the Universe for no other reason than the desire to experience the Radiant Form of God.

A practical example of meditational use of the Cube of Space (Diamond Body) is given by Gareth Knight, a contemporary British magician and Qabalist. He suggests the aspirant not waste time and energy in 'playing' with the symbols and symbol systems instead of using them. The correspondences enrich the conceptual framework, but should not become an intellectual preoccupation. Spontaneous

offerings of the unconscious should be acknowledged without sidetracking into associations. Stick to the image, itself.

For instance, build the Cube of Space in the imagination with oneself standing in the centre. Concentrate on the six main directions initially and reflect on their general function and meaning. Then it becomes a matter of following one's nose. The details of the minor directions may be filled in. It may then well occur that certain figures may appear more or less spontaneously in any particular direction. These might be astrological figures, or Tarot pictures, or William Blake's four Zoas, or images quite independent of any known system. Simply take them for what they are worth and use them in the immediate context in which they arise.

Our aim, when one crops up (say the Tarot Trump I, THE MAGICIAN, in the West), is to consider what it may mean--not to rush away and start to rack one's mentality on yet another mental construction of images or how to allocate all the rest of the Trumps around the Cube. This is to substitute reason for intuition.(4)

Just use the spontaneous image like an entry way and keep following your symbols deeper and deeper, letting them unfold their hidden aspects. The magical approach to the use of the Diamond Body has a purpose other than the mystic's experience of the Divine. The magician taps into the Divine power to which he has gained access. This enhances his ability to pursue the Great Work.

We have our basic structure in the Cube of Space on which we have affixed the Hebrew letters and their immediately associated symbols. That is the fixed central part of our magical generator. We need to let the other parts revolve around the fixed part if the generator is going to work. The principle is just like an electrical machine, a rotating coil and a fixed one, which can be used to convert motion to power or power to motion--it is a two-way energy converter in consciousness.(5)

The restoration of the original unity (Kether) is a collective venture which each individual must set out to accomplish for himself. This is not done through an imitation of the life of a god or gods. It comes through fulfilling the Great Work which creates that unique reality which is the individual. Each individual must experience the diverse aspects of his relationship with Divinity, within the constraints of time/space.

Polytheistic psychology would not suspend the commandment to have 'no other Gods before me,' but would extend that commandment for each mode of consciousness...polytheistic psychology obliges consciousness to circulate among a field of powers. Each God has his due as each complex deserves respect in its own right. In this circularity, there seem no preferred positions.(6)

[insert:CUBE OF SPACE WITH GODS & GODDESSES]

The restoration of the exiled soul is our personal response-ability. Each individual who does this makes a personal contribution to the content of the collective unconscious. The results get up-loaded on the "psychic net."

By means of this circulation, a "spiritual earth" is built up, a mystical body, which was identified both with man's resurrection body and with the world-spirit.(7)

The function of imagination in this process is to make tangible the fact that matter in its subjective (expressive) aspect is spirit. Spirit, regarded objectively, is the material world. It is the world of limitation and repetitive cycles.

The circular states of repetitiveness, turning and turning in the gyres of our own conditions, force us to recognize that these conditions are our very essence and that the soul's circular motion (which is its native motion, according to Plotinus) cannot be distinguished from blind fate. It is as if the soul frees itself not from blindness but by its continual turning in it. Ultimately, if the spontaneous mandala heals, it does so because it compels a recognition of the limitation of consciousness, that my mind and heart will turn only in a circle, and yet that same circle is my portion of an eternal necessity.(8)

Circulatio is an economic psycho-feedback system which transforms ego-consciousness by recycling the content of its experience with archetypal patterns.

Psychofeedback is a method of controlling the human system (and only the human system) by both reinserting into it the results of past performance (as with orthodox feedback concepts and by inserting into it the result of its present performance or experience.(9)

Rather than describing this process as one of control, it might be better understood as one of co-ordination. Both the ego-consciousness and the archetypal processes collaborate in the creation of the human ordering processes. This is mediated through the Anima, soul in body.

In yet another modern rendition of alchemical thinking, Buckminster Fuller speaks of a type of circulatio in his Synergetic lingo:

It is characteristic of "all" thinking--of all system's conceptioning---that all the lines of thought inter-relationships must return cyclically upon themselves in a plurality of direction, as do various great circles around spheres. Thus may we interrelatedly comprehend the constellation--or system--of experiences under consideration. Thus may we comprehend how the special-case economy demonstrated by the particular system considered also discloses the generalized law of energy conservation of physical universe.

"Comprehension" means identifying all the most uniquely economical inter-relationships of the focal point entities involved...This is the way in which thought processes operate with mathematic logic. The mathematics involved consist of topology, combined with vectorial geometry, which combination I call "synergetics"...(10)

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- (1) Edward Edinger, **EGO AND ARCHETYPE**, Baltimore, Penguin Books, Inc., 1973.
- (2) Ibid.
- (3) Charles Ponce, **KABBALAH**, San Francisco, Straight Arrow Books, 1973.
- (4) Gareth Knight, **EXPERIENCE OF THE INNER WORLDS**, Cheltenham, Helios Book Service (Publications) Ltd., 1975.
- (5) Ibid.
- (6) James Hillman, "Psychology: Monotheistic or Polytheistic",
- (7) M.L. Von Franz, **NUMBER AND TIME**, Evanston, Northwest University Press, 1974.
- (8) James Hillman, **THE DREAM AND THE UNDERWORLD**, New York, Harper and Row, 1979
- (9) Paul G. Thomas, **PSYCHO-FEEDBACK**, Englewood Cliffs, Prentice-Hall, Inc. 1979.
- (10) R. Buckminster Fuller, **OPERATING MANUAL FOR SPACESHIP EARTH**, Carbondale and Edwardsville, Southern Illinois University Press, 1968-69.
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D. ENTROPY AND REVERSABLE PROCESSES

We may explore the concept of circulator further by referring to the laws of thermodynamics.

1. THERMODYNAMIC LAWS

Carl Jung was the first to propose a heuristic relationship of consciousness to the laws of thermodynamics in his attempt to understand the principles behind psyche. He believed that the psyche is capable of converting statistical organizations in a natural state to one of a 'higher' or 'unnatural' state. He referred to this in alchemical terms as the opus contra naturam. These transitions, he stated were "in opposition to entropy."

An exploration of this tenet is extremely important to our understanding of the Diamond Body Exercise. With a better understanding of these physical laws of thermodynamics, visualizations and modeling can be thought of as beginning in an equilibrium state, passing through some stage of non-equilibrium, and eventually ending in another state of equilibrium. Thermodynamics seeks to understand these processes.

An ideal process is called a reversible process. This process is theoretically classified as a change in the state of a system which goes through a continuous succession of equilibrium states. At no point does the system experience a stage of non-equilibrium.

The first law of thermodynamics denies the possibility of creating or destroying energy. That is the so-called conservation of energy law. Libido is seen as that energy related to consciousness. It is that 'psychic' energy which psyche must conserve. Libido is the motivational energy for life processes.

The second law of thermodynamics, as a macroscopic concept, states that there is a tendency on the part of nature to proceed toward a state of greater disorder. The greater the disorder, the greater the entropy. A reversible process has a zero change in entropy. This can also mean that there is a negative entropy, or negentropy.

Entropy is a concept which describes the "usable" aspect of energy. To understand this better, visualize a heat source at one end of a closed room. At an early stage, we can state that the entropy of the room is low in that all the heat is at the source-point. As time increases, the heat flows into other parts of the room. Although the energy (total heat) has remained constant, the entropy, or order of the energy has decreased. It is now more difficult to do work (like boil water). Entropy is a measure of the disorder of energy.

It has been emphasized that work, as defined in thermodynamics, is a macroscopic concept. Haphazard motions of individual molecules against intermolecular forces do not constitute "work." Work always involves order or orderly motion. The entropy of a system is measured by the macroscopic degree of molecular disorder existing in the system. When the entropy of an isolated system increases, the system is proceeding from a state of lower to a state of higher probability. The second law of thermodynamics is therefore only seen as a statistical law.

An example of this important distinction can be described via the conduction of heat from a hot stove to a kettle of water. The second law asserts, not that heat must flow from the stove to the water, but that it is highly probable that heat will flow from

the stove to the water. Individual molecules can flow in the other direction, like in a gaseous state. It is understood that there is always a chance that the reverse may take place, on a microscopic scale. The second law of thermodynamics shows the most probable course of events, not the only possible ones.

At critical points near, but not at, absolute zero, there is an abrupt change or shift in laws, from statistical to quantum. Superconductivity and superfluidity experiments demonstrate conditions where laws of probability do not operate. It is the removal of entropy which allows the simplicity of the laws covering nearly perfect order to be seen in manifestation. Such laws are of a different order than macroscopic statistical laws.

The Vector Equilibrium Matrix is a visual tool to bridge macroscopic structures into quantum modes. It graphically depicts the sphere, whose center is everywhere and whose circumference is nowhere (now-here). It can be used as an access tool for realizing multiple quantum ordering.

2. ORDER AND CHAOS

To begin to understand this form of order, a new tool for perception is needed. The new concepts of order involve the discrimination of the relative differences in time and space (and similarities). Attention should now be given to similar differences and different similarities. Such a format in mathematics is called a ratio, or matrix field. According to Professor David Finkelstein of Yeshiva University, "The universe is a cosmic computer on the pregeometric level of information in which space and time appear as secondary statistical constructs."

The Vector Equilibrium Matrix is such a matrix field. Although seen as a geometry at any stage, it is pregeometric in that it describes the change from one stage to the next. It is a quantized state of information.

Physicist, David Bohm illustrates these notions of ratios in terms of a simple geometric curve. By approximating this curve with a series of straight-line segments of equal length, a ratio can be stated to define this curve. This curve has only one independent difference, that of being a space displacement as the straight-line segments curve on a flat plane.

A circle could be described similarly, except that the segments can vary in direction as well as position. This ratio now describes a curve of the second class. A helix creates a curve of the third class, when the angle between lines can turn in a third dimension. This is an example of various kinds of similarities in the differences.

In the above example of curves, the similarity (or ratio) between successive steps remains invariant. A new set of curves can now be described, where this similarity is different. The segment-lengths now vary. This leads us to consider not only similar differences but also different similarities of the difference. As the degree becomes indefinitely high, we now can describe what is commonly referred to as "random curves." Now, by quantizing our system of variance, we have ordered a "random" event.

This kind of curve is not determined by any finite number of steps. Nevertheless, it would not be appropriate to call it "disordered," having no order whatsoever. Rather, it has a certain kind of order, one which is of an indefinable high degree.

We no longer use the term "disorder," but rather distinguish between different degrees of order, some of which are deterministic chaos. Order is not to be identified with predictability; it is found in the connectivity of two events. The mechanism used to identify an "event" is most revealing. Insight is the perception (or psychological equivalent) of a certain type of resonance. This specific form of ordering (insight) has meaningful implication to the individual experiencing it. Intelligence is a sequence of such insights, leading to purpose and practical behavior.

This resonance allows for the transference of information from an implicate order to the explicate order. Since the total of the explicate is encoded throughout the implicate order, the resonance provides a direct access or return to psyche. This resonance is called a "complex."

3. COMPLEXES AS REPAIR FUNCTIONS:

A complex is the interaction, in time and space, of an individual with an archetype. It is a personal experience. The archetype is "interfering" with the human part of life. Conscious awareness is altered through the experience. The more consciousness differentiates among the complexes, the more negentropic the effect. There is a decrease in entropy. A complex provides information from the archetypal dimension that facilitates adaptation, healing, and evolution.

If a system changes such that a spontaneous increase in disorder (deterministic chaos) will bring the system back to its original state, then the state may be defined as orderly and thereby associated with an increase in negentropy (decrease in entropy). The complex becomes a way to bring the system back to its "original" state. The ordering principle allows the transfer of information from psyche to consciousness. Psyche's energy is continuous. Its "quantum-like" nature is seen as a complex, or group of complexes.

The entropy of all macrocosmic structures increases in time. To reverse the natural degradation which eventually occurs, an ordering process capable of returning the system to its original state is required. This process can be thought of as a "repair function."

Living things routinely incorporate self-repair systems within their structures. Immortality of any system is, in principle, feasible only if its repair system is not irreversibly impaired. If an impairment can be identified, restoration to its original structure must be accomplished by performing work. These functions require the search for, and then application of, specific information. A complex is a source for these specifics.

In these formats lie the nature of the differences (and similarities) in which energy is viewed. Energy is the scalar quantity which is measured on a relative scale. Present convention equates zero energy to the absence of any observable forms of energy. But there is a seething ocean of scalar energy just below the level of observation. As our worldview shifts from the statistical to the quantum, we find that our ordering models lead to a concept of abundant or infinite energy (or potential).

There is an absence of any observable forms of energy within the Vector Equilibrium Matrix. Thus, this center is an idealized state for negentropy because it contains unobservable virtual (scalar) energy which can be "translated" or "transduced" into 4-dimensional reality.

4. REVERSIBLE PROCESSES

This energy does not exist in the uniform continuum, but in association with structures within structures. Macroscopic systems are universally irreversible and mortal. Their internal disorder spontaneously increases over an extended period of time. Some basic structural component of the elementary particles appears to be

universally immortal and reversible. The key seems to be in the quantum viewpoint. As our model becomes smaller and smaller, the access to negentropic ordering becomes greater.

The Vector Equilibrium Matrix represents a "repair function" or ordering on a quantum level. The Diamond structure represents an immortal body, with the V.E.M. describing the geometrical way in which this structure reverses itself. With this set of visual tools, the existence of an infinite source of negentropy is now available.

The existence of an infinite source of negative energy permeating the universe constitutes a plenum. Within the very vacuum of space there are observable properties, as Dirac indicates: "Infinite sea of negative energy." It is now possible, with a hierarchical view of matter, to give an operational definition to this potential.

Therefore, we define Nuit, goddess of Infinite Space as the sum of all unobservable forms of energy that exist in the microcosm beyond our observable limits. It is a plenum, not a "matter-free" state. It is not the V.E.M. which is important, but its center which is everywhere present, Nuit.

5. THE ALCHEMY OF ENTROPY

The amount of energy in a system that is available for work is called Gibb's free energy. The conscious will is the ego's "free energy." It is continuously subject to degradation of value by psyche's entropic function. This dissociability of psyche diffuses the ego. The more consciousness differentiates, the more organization is given to ego as free energy. This access of free-energy can create a negentropic effect, thereby re-ordering that which was in disorder. This is the complexity of the interaction between ego and archetypes.

When the archetypes create chaos, it is for re-structuring in a new form. This de-constructing is called *solutio* or liquification of consciousness in alchemy. It is the necessary pre-requisite for the completely new image. When the ego undergoes *solutio*, the pathway to the new self has opened.

One proceeds down that pathway through the alchemical process called *imaginatio*. This indicates an abstraction from concentration and active fantasy. This so-called "free energy" can exist quite independent of the ego. It is also a product of the Self.

Sublimatio is the process of raising physical and personal experiences to a higher or more abstract level. It is an elevation of perspective, an ascension in viewpoint. It means that what was once taken literally, such as the body, is now perceived in a more subtle way. The body itself becomes subtle, another venue for psyche and the imaginal life. As an ordering process, *sublimatio* leaves the explicate and enters the implicate realm. Free-energy comes into time when it leaves the archetypal world.

Sublimatio is the raising of material from the bottom of a vessel. The difference between a neurosis and a sublimation is that a neurosis isolates; a sublimation unites. Something new is created, and negentropic potential becomes available.

Through sublimation, the spirit hidden in matter now becomes visible. "Primitive thinking," or anima-consciousness, is more suited to maintaining opposites in harmony while this ordering process continues along mythical patterns. It might be thought of as an archetypal ordering process. When disorder is not ordered by archetypal processes, it falls to the ego. When chaotic energy is ordered by

✘ archetypes, it is drawn to them because they are strange attractors.

A middle path between "primitive thinking" and directed (ego) thought points to the type of sublimation which Jung speaks of in *AION*. The ego system has a "linear form" or segment of time irreversibility implanted as a result of directed thinking and the historical development of the self. A relationship between the ego and the self is possible through the transcendent function. This is not built up by directed thinking, but rather with the negentropic source: imagination.

IV. CONTEMPORARY APPLICATIONS

A. ARCHETYPAL TOPOLOGIES:

Active participation in the realm of the imagination is central to psychology, alchemy, magick, and physics. Many, but not all of the imaginal modes involve the concept of topology or topography. Within the context of the topological fantasy, the various forms of ordering (Tree of Life, the Diamond Body, the V.E.M., etc.) provide a comprehensive means of ascertaining the values of any system of experiences.

Topology is the science of fundamental pattern and structural relationships of event constellations. It was discovered and developed by the mathematician Euler. He discovered that all patterns can be reduced to three prime conceptual characteristics: to lines; points where two lines cross or the same line crosses itself; and areas, bounded by lines.(1)

While active invoking of images is essential to the practice of QBL, it is best to balance this through a detached observation/participation in the rising and passing away of phenomena. Topographical models are paradigms, but they should not be considered ultimate truths, but as allowing access to imaginal realms. While topography is a useful tool, it is also an archetypal perspective.

For example, I suggest that a perspective which sees the necessity for 'archetypal topographies' is just one among many. We must not be drawn into literalism at such a profound level. As I mention above, Casey seems to imply a single natural ordering for a particular purpose, within a specific archetypal influence. Examination of the variety of such attempts to pattern and group archetypes is itself a valuable exercise in exploring archetypal imagination. What kind of consciousness is it that perceives in terms of organization, integration and preferred positioning of Gods? Generally, the attempt to discover a unifying wholeness or impose a distinct pattern onto archetypal groupings is a procedure dominated by the archetype of the Self.(2).

QBL is a single philosophical system which accommodates both monotheism and polytheism. These topologies may be used in conjunction with a polytheistic orientation in which consciousness circulates among a field of powers. Each god, or complex is sovereign in its domain. There is a circulation in which there are no preferred positions.

The danger in identification with the archetype of the Self is persistent belief in it as the "only" reality. Archetypal images of order (mandalas) counter disintegration. However, there is sometimes a psychic value in disintegration. It brings immediate awareness of distinct separateness among the pantheon of archetypal forces. Both attitudes, monotheism and polytheism, represent forms of living reality in the phenomenal world.

Topology offers a descriptive basis for both meditation and exploration of the imaginal realm. The importance of the act of decision for behavior or transformation lies mainly in the fact that by it the individual changes his position. A "path" is a change of position within a field which otherwise remains sufficiently constant. It is an abbreviated representation of a sequence of situations.

A path permits changes between regions. This is both conceptual and physical change. The actions which are represented in the life-space as regions are coexisting manifolds which possess a certain degree of differentiation. These "regions" are the spheres of the Tree of Life.

The imaginal paths of the Tree of Life are linked to the concept of locomotion. They require "working" by the aspirant in a process in time. The psychological region in which these processes occur determines the dynamic condition of the individual.

Pathworking is a form of "loco-motion," akin to the "*illuminated lunacy*" Hillman describes as the royal marriage, the pre-requisite for the Stone. It is 0, THE FOOL who makes the journey through the winding paths of the Tree of Life via Tarot imagery. He is nowhere (now-here) because of his ability to make quantum leaps. He is everywhere at once, until we make an observation by using the cards. He is thus gripped by only one story at a time, which contains many images and its own inherent rhythm.

When one changes position, different loco-motions are now possible and impossible. Even when a region is still attainable, the course of the path followed has changed fundamentally because of the new point of departure. This part that you are now is "where you are at."

THE FOOL is a breath-spirit, and Anima is a breath-soul. This relates them intimately to the airy realm of imagination. Just as the Fool circulates around the paths of the Tree, anima circulates throughout every cell of the body.

The attributions of these entities leads us in a definite direction: they both focus attention on the breath.

The importance of breath in human life and mystical meditation is not to be underestimated. The use of breath control has a long-standing tradition in magical and yogic practice. There is a relationship between meditation states and rhythmic breathing. If we look further into our Qabalistic modeling, we should find the heart playing a prominent role in this process. This is, in fact, the case.

**(1) R. Buckminster Fuller, OPERATING MANUAL FOR SPACESHIP EARTH,
(2) Peter Bishop, "Archetypal Topography," SPRING 1981, Dallas, Spring Publications, 1981.**

B.MEDITATION AND RESONANCE EFFECTS

(This paper is from THE HOLISTIC QABALA, a series of 11 books, written by Richard and Iona Miller. It has also appeared in print in "*Psychedelic Monographs and Essays*," Volume Four, Summer 1989)

The use of psychedelics or empathogens traditionally involves effectual traits or nuances which can parallel endogenous mystical or cybernetic landscapes. This piece presents an introduction to current descriptions common throughout all three fields. A promise of increased comprehension so far as metaphor, symbol and effect surrounding these and other cross-correlative fields is reviewed and annotated.

...If the manas is to preform its proper task of controlling senses, it must reflect the ideal pattern that is laid up in the heavens of Buddhi. Only when that pattern is reflected in its mirror has it the standard of reference by which to judge...nor should we think that the possession of such a divine standard by which to judge attainment is far above us; one to which we may aspire in some dim future. Here and now the Pattern is within us.

Sri Krishna Prem

Theoretically, the practice of meditation is intended to withdraw the personal mind from its persistent preoccupation with external affairs. It can be seen as a form of training for the mind in switching from matter to psyche. There is a purpose. It is to prepare the personal nature so that it is able to reflect and express its relationship with the Universal Self.

Throughout history there have been a number of techniques used to achieve a meditative state. The most often used first step is a form of rhythmic breathing. If done correctly, a sequence of strong and unusual body reactions occur. These also will eventually trigger unusual psychological states via a type of resonance effect. A closer examination of these resonance-relationships yields information useful in improving the meditation.

Perhaps an example clarifies this: When a subject is totally relaxed and has achieved a deep meditative state, a slow, rhythmic sine wave pattern can be registered by a cardiograph-type sensing device. What is being measured is a standing wave in the aorta. There is a heart-aorta resonating oscillator which affects other parts of the body, including the brain.

Resonance occurs when the natural vibration frequency of a body is greatly amplified by vibrations at the same frequency from another body. Oscillators alter the environment in a periodic manner. When in a deep meditative state the regular movement of the body indicates that a standing wave is set up in the vascular system, specifically in the aorta. This standing wave affects several other resonate systems in the body, all of which are driven by this large signal.

A paper by Paul F.J. New, and several current papers, indicate the presence of a major resonate cavity oscillator located between the heart and the bifurcation, where the aorta divides itself. When the timing of the pressure pulses traveling down the aorta coincide (in phase) with the reflected pressure pulse, a standing wave is achieved. When this frequency approaches 7Hz., a progressively amplified wave form is created by resonance, resulting in a large oscillation affecting every other circuit in the body tuned to this frequency.

There is a resonance relationship to this frequency with standing waves on the Earth's crust. If we assume that the spherical crust of the Earth represents a condenser, then the frequency of resonance can be calculated on the basis of the equation:

$$\text{Resonance frequency} = C/7.3R^2$$

Where C is the velocity of propagation of electromagnetic waves and R = radius of the Earth. This frequency has been shown to be 6.4Hz.

Thus, a harmonic frequency corresponding to the pulsation of the electrical charge of the Earth is present in heart/aorta.

The brain may be considered as a piezoelectric gel³, one converting physical vibrations into electrical ones. Although the body movement from this heart/aorta resonance is relatively small, 0.003-0.009 mm., the head is a dense and tight structure. By moving up and down, the skull accelerates the brain with mild impacts. These acoustical plane waves are reflected from the cranial vault and are focused upon the third and lateral ventricles. A hierarchy of frequencies couple this 7Hz. body movement to the higher frequencies in the ventricles.

That which is that bright within the heart; in that this man resides, innate with mind transcending death, with brilliance innate.

Taittiriya Upanishad

In the book *Biomedical Engineering Systems 4*, Chapter 7 is a major work entitled "Toward A View of Man", by Manfred Clynes. Clynes is a medical doctor working at the Research Center in Rockman State Hospital, Orangeburg, New York. This work is considered a breakthrough in the fields of psychology and medicine, known today as the field of psychobiology (biocybernetics).

Clynes took a number of volunteers and shaved their heads, placing a series of electrodes in rosette patterns or various regions of the brain. These included the temporal, frontal lobe section and occipital region. In this way, not only were the brain frequencies monitored, but directional shifts in these frequencies could also be determined by the geometry of the electrodes on the skull.

The original purpose of Clynes' work was to find out how precision and order exist in brain processes; to discover what is inherently programmed in man and how he might make use of the inherent programs.

These individuals were given a number of images (form) and colors to concentrate on while their brain was monitored by computers. Recording from opposite pairs of electrodes simultaneously, he obtained views of the electrical activity from different angles: mathematically, a spatial differentiation of the electric vector. What was happening literally was a mapping of consciousness. A number of very important observations were made:

1. Certain qualities and relationships were of greater importance to the computer than such quantitative factors such as intensity. This meant that the brain's systems of identification are based on differences, rather than intensity of the signal.

2. Thin lines were found to produce characteristic evoked potentials, irrespective of size. The form itself is transduced into another form in the brain space time which can be measured. There is a one-to-one correspondence between the visual form of the stimulus, the response form in the brain, and the perception.

This is, perhaps, the first physical description of the field of an archetype. It is a geometrical, structuring and has uniqueness.

3. The process of inhibition is as important for transducing the external world as is excitation. Concentrating on specific lines of geometry does not constitute the changing stimulus, but their steady presence systematically and radically alters the response to another changing stimulus.

4. Changes in intensity of a single color produce very simple response shape. Light and darkness (as opposites) show no evidence of being different values of the same variable. Rather, they seem to be the result of stimulating and also of inhibiting different receptors. Thus, the evoked potentials to light and darkness in no way may be said to be positive and negative, respectively. White, for example, appears in this view as the result of mutual inhibition of color.

5. These experiments clearly imply an inherent form of organization and not a random learning of nerve nets. It is possible to mentally recognize and perceive the stimulus within the first portion of the invoked potential. Portions responding (in the brain) which occur later than 0.3 sec. are seen as systematic processes, or tuned circuits to those responses to specific in-coming stimulus. This is a form of resonance in the brain to specific geometry. This could also lead to the formation of memory.

6. Every perception has a unique counterpart as a space-time code form in the brain. These space-time shapes are evidence of relationships between the external world and its representation in the brain. They act like keys to "unlock" specific parts of our brain, often being observed below psychological threshold levels (subliminal).

Clynes literally mapped fields in the human brain. A computer was able to identify and reproduce those geometrical figures from what that human was concentrating on, either as a geometric form or color. The individual did not even have to look at the pattern but simply concentrate "in his mind's eye." A standing wave means that the wave is not changed, but is holding itself steady in one certain geometrical thought.

If quantum mechanical properties of matter are actually the conscious property of matter, then one would predict that all phenomena where quantum wave explanations are important, the phenomena could be interpreted better in terms of consciousness.⁵

Our planet is surrounded by a layer of electrically charged particles called the ionosphere. The lower layer of the ionosphere starts about 80km. from the Earth. This charges layer is known to reflect radio waves.

Since this is a highly charges layer, the ionosphere forms a so-called capacitor with the Earth. This means that there is a difference in electrical potential between the two, the Earth being negatively charged and the ionosphere being positively charged. This potential varies somewhat but is around 200 volts/m.

This is a fundamental type of electrical generator. The solar winds, interacting with the upper atmosphere rotation, act as a collector and brushes of a generator. The lower atmosphere can be seen as a storage battery for this gradient potential.

This electromagnetic field around the Earth can be viewed as a stiff jelly. When our bodies move and vibrate, these movements are transmitted to the environment. These fields not only impinge on our body but they also affect the charges inside our body. When we are standing on the ground, under normal conditions, we are grounded. Our body then acts as a sink for the electrostatic field and we actually distort the force lines somewhat.

Our body also has its own electrostatic field about itself. These field-lines are the result of the various biochemical reactions in the body. This resultant bio-field couples us to the isoelectric field of the planet.

A "tuned system" consists of at least two oscillators of identical resonance frequencies. If one of the oscillators starts emitting, the other will be activated by the signal very shortly. Because the coupling is ideal, they will respond to the tiniest signals and begin to resonate.

In 1957, W.O. Schumann⁶ calculated the Earth-ionosphere cavity resonance frequencies. His works were updated over the years and the figure now used is at 7.5Hz. As indicated previously, the micromotion of the body is about 6.8 to 7.5Hz.

It is obvious that when one is in deep meditation, it is possible for the human being and the planet system to start resonating. There is a transfer of energy. It is no coincidence that this frequency is in the theta region of brainwaves, the state of maximum regeneration.

Information is embedded in a field, rather than just being a field. A field is thus an abstract quantity of information; relationships between this point and that point in the universe.

Astral temples are set up to evoke a certain correspondence effect, like a resonance. These temples are like a physical matrix, one with specific geometrical form and color.

The visualization, in turn sets up a particular EM resonance in the brain. The reverberation pattern is most explicit. Clarity is all important. Distortion minimizes the resonance effect and reduces any amplification to connecting other "tuned" oscillators in the body.

Techniques of extending this harmonious resonance have been known for thousands of years. These are the different meditative techniques. Most slow down the metabolic rate of the body so that much less oxygen is required to keep the body going.

As one becomes proficient in meditation, the breathing becomes so gentle as not to disturb the resonate state of the aorta. An automatic process develops in which the lungs and the diaphragm regulates the heart-aorta system so as to keep them well-tuned. This helps extend the resonant behavior even with shallow breathing.

In conclusion, the following points should be made regarding the resonant effects available through meditation:

1. There is a heart/aorta resonance which links up with a number of other critical oscillators, including several in the brain. It starts at the heart.
2. Specific geometries or geometrical mandalas (form and color) create resonance effects in the brain. The pattern is repeated in the brain.
3. Specific geometrical systems can be used as "keys" to access those specific archetypes. Access occurs to the psyche.
4. This linking of resonant cavity oscillators can be seen to form a common thread, going from Hadit (DNA-RNA helix) to Nuit (galactic hydrogen-helium field).
5. By "tuning" one's meditation, it is possible to amplify and have access to the other resonant systems, in and out of the body.

The Human organism has usually been regarded as a complex arrangement of chemical elements and compounds. The quantity and structure of these variables are our reference points for states of health. This is the area of biochemistry and biochemical analysis.

An equally valid approach is to regard the human organism as an aggregation of electromagnetic fields which are constantly interacting and changing as are their biological equivalents. It has been shown that the human system is an emitter of electromagnetic radiations.⁷

All biological processes are a function of electromagnetic field interactions. EM fields are the connecting link between the world of form and resonant patterns.

The patterns are arbitrary forms which are non-physical. Archetypal forms are based on inherent characteristics and correspondences. This provides a basis for what we would call resonant phenomena in archetypal systems. EM fields embody or store gestalts, patterns of information.

An archetype may then be seen as a specific geometrical system of standing waves occurring in the brain as a space-time shape ("key").

In living organisms, opposites receive their structure of symmetry from particular combinations of spatial and temporal aspects. Like reins on a horse, each of the opposites of the psychological pair has its own place. This geometric property makes them capable of being opposites. The activity of each arm determines the quantity; the spatial identity of the rein determines the quality. There is no monotonic (or linear) transition from one to the other passing through zero.

A human being, immersed in the galactic hydrogen-helium field, may also utilize the pulsing feedback between man and the galaxy to build up the resonance effects, much like we would tune a radio. These primary frequencies are multiples of the base frequency 7 Hz.

These four nucleotides provide resonant frequencies for alpha, theta, and delta (the characteristic brain states going from consciousness to deep sleep: 14-2 Hz.). This resonance relationship can be seen to link with helium inside the body at various chemical sites.

The bridge connecting the solar system resonances and the brain frequencies seem to reside in the DNA-RNA helix.

In a paper by Oliver Reiser (8) from the University of Pittsburgh, a relationship is developed between the four helium cores in an atomic nucleus and the matrix forms on the DNA and RNA. Reiser describes them as "radiation belts of thought," the four "nucleotides" enter into the dynamics of these nuclear properties. A spheron is a nuclear constituent roughly spherical in shape and spaced in concentric layers.

The platonic solids are the five regular solids described by Pythagoras, now seen to form all crystal formations. These forms later became the basis of the mathematics known as group theory. The so-called "resonances" were specific combinations of five regular solids geometry.

"Helions" is Pauling's term for spherons when he modeled the helium in the sun, the heliosphere around the Earth, and the hydrogen-helium plasma of the galactic disc. An optically activated molecule, such as helium, contains an electron which is coerced into a helical path by electric field. This one-sided spiral is maintained in the intermolecular transport through protein molecules. Note that the protein units of "spherical viruses" are packed symmetrically, in accordance with the pattern of cubic symmetry. Once more we find our way back to Pythagoras and the Platonic solids.

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3. When certain crystals are stressed, they produce an electrical current. This phenomena is known as the piezoelectric effect. The physical body can be seen to be composed of liquid crystals and amorphous semiconductors (the gel). When the body is stressed by a force such as heartbeat, it presses the brain on the skull and current is produced.

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IV. CONTEMPORARY APPLICATIONS

C. MAGICAL USE OF STANDING WAVES AND GEOMETRICAL MATRICES

It is now evident that every stimulus form corresponds to a particular space-time shape in the brain, in terms of electrical activity. A computer can even now identify these shapes. These space-time shapes are evidence of relationships between the external world and its representation in the brain.

We have chosen to call these spatio-temporal representations "keys." These keys seem to operate on "locks" in our brain in a manner similar to "minting" of DNA production and replications.

Magick is practiced fundamentally for the creation of the mystical or immortal body. This subtle body is also known as the Diamond Body or Philosopher's Stone. It is independent of time and space and can be seen as a magickal mode of transportation for consciousness. By tuning in on specific keys, access to specific brain-chemical relationships are available. Archetypes may be seen as these specific geometrical systems of standing waves, occurring in the brain as space-time shapes or keys.

Resonance effects aid and amplify these standing waves, with specific results. One may speculate on minimizing the size of one's mystical body, moving consciousness into another dimension, via the energy flows of singularities.

Conceptually, it is a useful model to picture the vehicles of consciousness becoming smaller as we rise on the Planes. If you picture your carrier of consciousness as synonymous with the smallest available models--massless particles--you are no longer limited by the mechanistic laws of the universe. You enter the possibilities of the quantum field. Further, these models also provide resonance with other parts of the body.

Information is embodied in a field, rather than just being a field. The geometrical images are basically an abstract quantity of information; a field relationship between one point and another in the universe. Unlike most engineering channels of communication, biological channels are dynamically asymmetric. Information on change is transmitted across space asymmetrically with respect to the direction of the change of the variable.

This means that if a biological system is to be informed symmetrically about dynamic changes, it requires two channels. The basic reason for this dynamic asymmetry is that biological channels for control use the concentration of molecules to transmit information at some point along the channel (for example, neurotransmitter release). This must involve asymmetry since the creation and transportation of molecules is generally accomplished by different means from their breakdown and removal.

Concentration can be made a function of information as long as the change requires an increase in concentration. Decreasing concentration generally cannot be accomplished as fast through the same channel. The level of hormones which have issued into the bloodstream cannot be decreased through the action of the same gland. A decrease in concentration is produced by metabolic processes or through the increase in level of counteracting hormone or chemical. In either case, the decrease in concentration is produced through quite different channels from the one producing an increase in concentration.

The significance of this asymmetry of unidirectional rate sensitivity in the space-time patterns in the brain is that if it were not for this principle, interaction and cancellation of opposites would prevent the formation of unique space-time patterns for each perception.

An event is registered as a pattern in space as well as a pattern in time. With the sense of touch, for example, removal does not cancel the sensation, even when the touch was short

and momentary. A distinction can be thus made between quality and quantity. Quality is given by the channel location, quantity by the firing pattern in the channel.

In living organisms opposites receive their structure of symmetry from a particular combination of spatial and temporal aspects. It is the geometric properties which makes them capable of being opposites. This "rein control" implies distinction between quality and quantity. With each rein, messages are similar and not opposite in character. The activity of each "rein" determines the quantity, the special identity of the "rein" determines the quality.

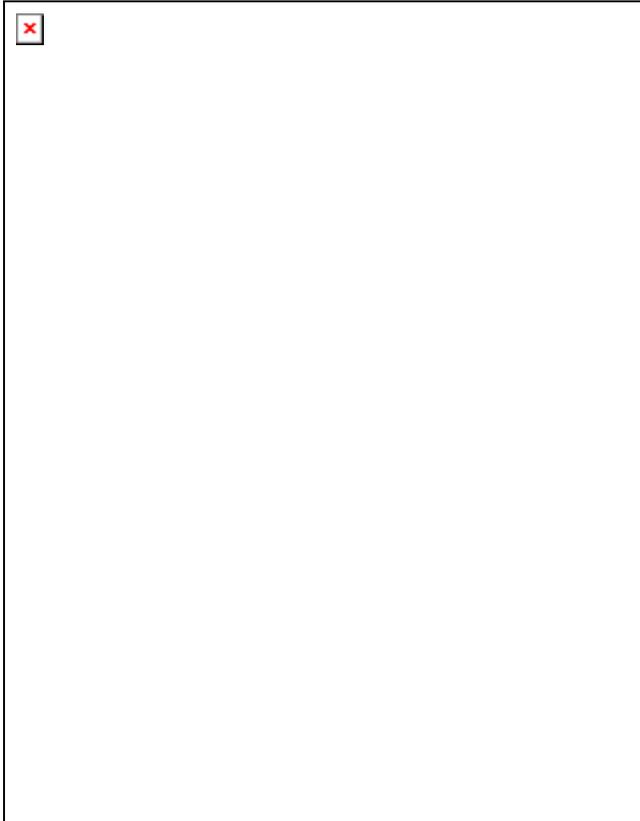
Archetypes influence our human lives in this way also. They intrude upon the patterns of one another, and help balance out our one-sided attitudes. Sometimes this happens through the shadow, sometimes it is an inspiration of the Self. In this way archetypes transform from simple information, into image, into energy, into natural consequences in the real world.

Any view of the universe is an interplay between information and energy. By information we mean those processes which provide recognition and identification of separate existences, and by energy the transformation and displacement of the contents of space. This interplay between information and energy involves identity, quality and recognition.

One point of entry into manifestation for archetypes is through our thoughts and intentionality. Whichever comes first, the archetype or the neurotransmitter, thoughts become things. The neurotransmitter is the chemical link between apparent nothing and something in the human domain. Even more fundamental is the sub-atomic process of probability underlying and conditioning the process. This probability itself is archetypal--probably Hermetic.

It is the contention of this book that the most fundamental geometric form is the Vector Equilibrium Matrix (VEM). This geometrical form leads directly to the Diamond Body or Cube of Space. To place oneself inside this structure, or to project this matrix form outward as a visualization, or to climb into a virtual reality depiction of the VEM, creates and generates a resonance within the space-time shapes of the brain. The Vector Equilibrium Matrix is a geometrical mandala--a solid state mandala--resonating with the psychological analog for the Philosopher's Stone. A state of grace can be achieved where the key word is Access.

The psychological response from the resonance created from visualizing oneself inside the Vector Equilibrium Matrix is Daath.



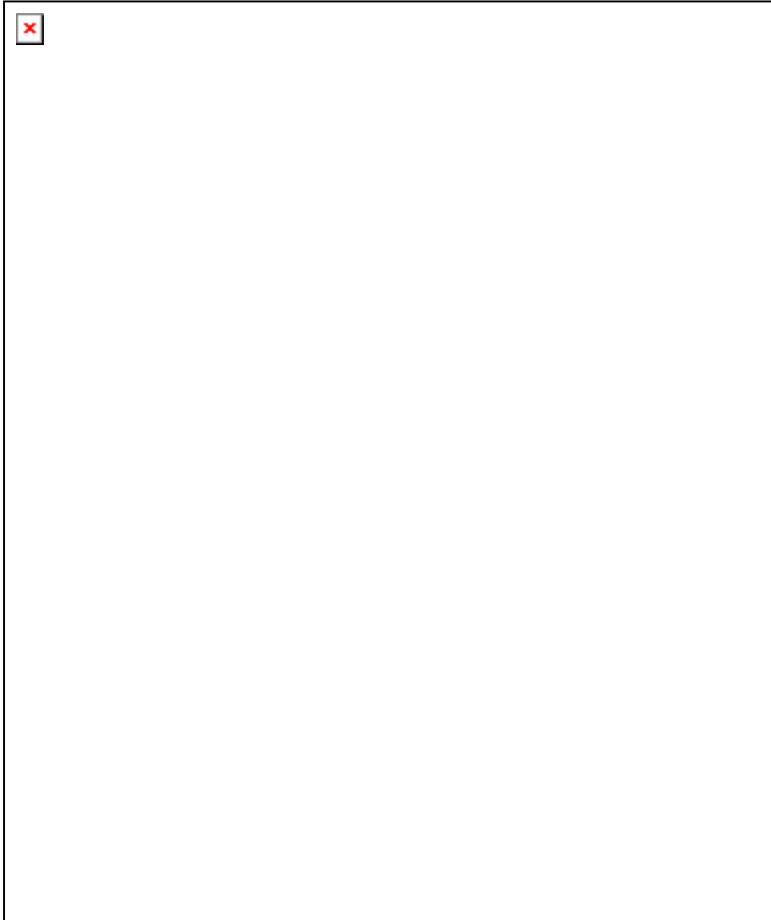
The Astral Temple of Daath is evoked by the following visualization sequence:

- 1. A banishing ritual is critical, including a visualization of the containing circle.**
- 2. A Middle Pillar Exercise. This sets up the centers for resonance and the foundation points for the Vector Equilibrium Matrix, connecting each center. Chakra colors are important at this point.**
- 3. A vertical line should now be envisioned, acting as an axis or Middle Pillar line through each of the chakra points.**
- 4. Now, focus on the two chakra points corresponding to the heart (Tiphareth) and the center of the forehead (Daath). These two points become centers for two intersecting circles, (see Figure 1).**
- 5. Connect overlapping points (from the circumferences of the circles) with vertical lines. These are the side Pillars. Now begin to visualize a Tree of Life, (see Figure 2).**
- 6. Visualize the inter-connectivity of the two geometric figures known as the Vector Equilibrium Matrix. (See Figure 3 for specific model format).**

The superimposition of this matrix over the human figure is reminiscent of the description of Ezekiel's vision in THE BIBLE. It has been interpreted as the Mystical Body of Christ.

And above the firmament that was over their heads was the likeness of a throne, as the appearance of a sapphire stone: and upon the likeness of the throne was the appearance of a man above upon it.

Ezekiel 1:16



The mathematical zone of neutral resonance occurs at the centers of each cube, visualized as Tiphareth and Daath. This allows Nuit into the visualization as the heart of the Diamond Body, that which is naught. The heart-aorta resonating oscillator link with the brain can be activated by tuning both brain-waves and heart rate to meditational mode. As this system becomes "tuned," an ideal coupling occurs and a link with the earth-ionosphere is achieved.

It is at this point that specific geometrical manipulations create a series of "gates" or "keys," and access then occurs to specific archetypes. Direct access to psyche is available and Daath is experienced on the psychological level as gnosis. A geometric set of building blocks can be stacked to produce the space-time shapes of the brain, going from Hadit (microcosmic) to Nuit (macrocosmic).

The Vector Equilibrium can be formed into the Diamond Body by the addition of eight tetrahedrons to the truncated corners. (See Figure 8). The field formed by these tetrahedrons is known as the Isotropic Vector Matrix.(1)

This I.V.M. is an omnitriagulated web extending throughout all-space. It is the geometric form within which the primitive Vector Equilibrium forms. The Vector Equilibrium centers on a nexus point within the subtle net known as the I.V.M. The Cube of Space can be later enlarged into another V.E.M. by incorporating a larger area of the I.V.M.

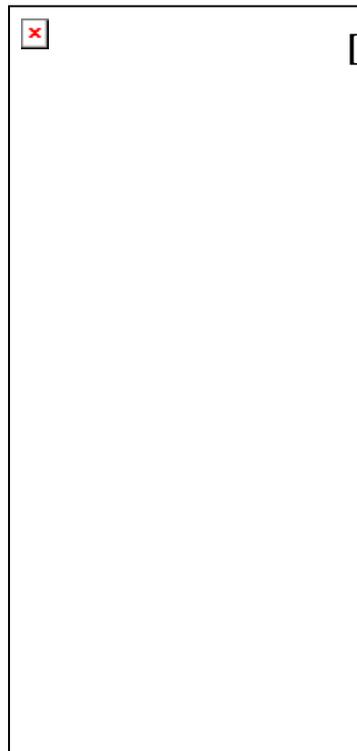
These vectors are the most economical lines of energy transference. They are the path of least resistance which is always favored in natural processes. They are not only the way energies are likely to move, but the way they "like" to do it. The conceptual aspect of the geometry is simply a way for our minds to grasp the process. Fuller contends that even our thoughts are tetrahedrally conveyed in our gray matter. So, as we are conceiving it, it is manifesting in our very thought process.

This "laddering" geometry, which is found in the Tree of Life, is the foundation of all Magick. There have been depictions of 3-dimensional Trees of Life, amalgamated such that they build into a solid and fill all-space.(2)

This mathematical, speculative work was the qabalistic project of Aleister Crowley's star pupil, Frater Achad (Charles Stansfield Jones). It is very useful to connect current scientific concepts with the topological system furnished by QBL. This keeps our practice of Qabala contemporary, and offers a spiritual touchstone for our scientific fantasies. Our geometrical description of the ground state allows the brain to visualize, conceptualize, and experience the effects of the Philosopher's Stone.

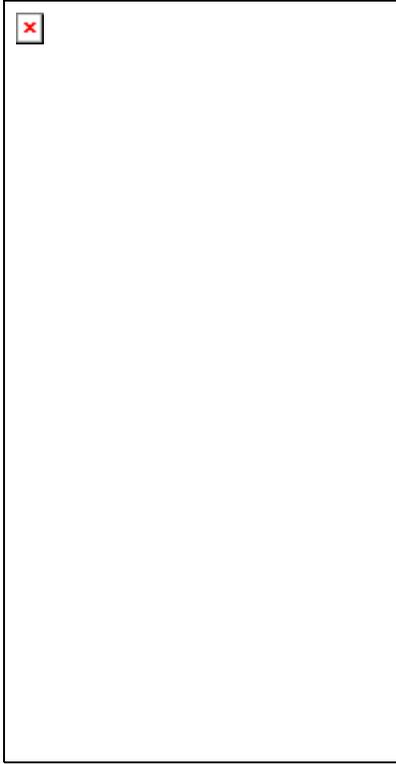
(1) R. Buckminster Fuller, SYNERGETICS 2, paragraph 986.142.

(2) Frater Achad, THE ANATOMY OF THE BODY OF GOD, New York, Samuel Weiser, 1926/76.



[Geometrical Construction of Tree]

THE FOUR WORLDS



Spheres 1-2-3=Archetypal; 4-5-6=Causal; 7-8-9=Astral; 10=Physical

D. THE MAGICKAL ALTAR: THE DOUBLE CUBE

 *And the likeness of the firmament upon the heads of the living creatures was as the color of the terrible crystal stretched forth over their heads above.*

Ezekiel 1:22

Magick and yoga are the two major divisions of Mysticism. One is exaltive, the other reflective. Through the correspondence system, Magick seeks to exalt the imagination and the soul. Yoga provides a discipline through which the mind may be emptied of its contents at will.

The aspirant becomes a mystic when he is favored with an immediate experience of the divine.

This experience of ultimate reality is so awesome that he strives to attain further heights of ecstasy and holy rapture. The True Will of a mystic is to merge into Godhead at Kether. The vision of the Diamond Body, or Throne Chariot, is a mystical experience possible on this path.

In magickal practice, the Altar is placed in the very center of the magickal circle. This makes the Altar the pivot-point of all operations. The Altar represents the True Will of the magician. It is the physical representation of his intent.

All the other magical weapons are arrayed on the altar. The Wand represents the Will of the creative self; the Cup is intuition, the Sword indicates the qualities of the mind, and the Pentacle represents the physical body. The proper use and direction of these weapons depends upon the Altar. The intent of the celebrant is critical to the proper use of his faculties. This is a law under which he works.

Only the Lamp, hanging overhead, is exempt from this prescription. This is because it represents the inextinguishable light from above, that of the Higher Self, and is not subject to the desires of the magician, except his desire for self-transformation.

The Altar is a geometrical construction in the form of a vertically-positioned Double Cube. It embodies the magician's knowledge of the laws of Nature.

The Altar is a double cube, which is a rough way of symbolizing the Great Work; for the doubling of the cube, like the squaring of the circle, was one of the great problems in antiquity. The surface of this Altar is composed of ten squares. The top is Kether, and the bottom Malkuth. The height of the Altar is equal to the height above the ground of the navel of the Magician. The Altar is connected with the Ark of the Covenant, Noah's Ark, the nave (navis, a ship) of the Church, and many other symbols of antiquity...(1)

[insert The Double Cube: Magickal Altar]

The Altar, the central shrine of the temple, in the form of the double cube, is derived from the geometry of the Tree of Life, itself. When the double cube Altar is superimposed over the geometry of the Tree of Life, it coordinates Spheres 1-9, Kether through Yesod. There are centralized nexus points at Sphere 6, Tiphareth (the Heart) and Daath.

The true Temple consists of the body/soul (Sphere 10, Malkuth) of the magician in coordination with the transformative matrix provided by the Tree. Magicians and yogis have always considered the body to be their Temple. Note also the connection between the resonant cavities in the brain and the name given the gates to this area--the temples.

The double cube pervades and penetrates the physical body during meditation. Spheres 1-9 (the Altar) are conjoined with Sphere 10 (the body of the mystic). Sphere 10 might also be representing the earth, itself. Meditation produces linking with electrostatic fields in the ionospheric cavity of the earth. Thus, the meditation process is "grounded," literally and figuratively.

The resonance effect produced by this means is described by the Qabalistic axiom: Kether is in Malkuth; and Malkuth is in Kether.

We can examine each section of the double cube separately. When the geometry of the Tree is superimposed over the human form, the bottom cube centers in the region of the heart. The top cube centers in the middle of the brain, in that region known as the 3rd Eye. See Figure .

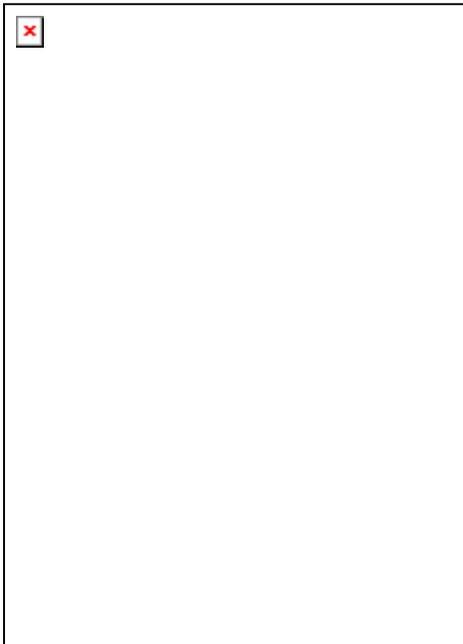
[insert Tree of Life Interpenetrating the Human Form]

This figure is related to biological processes through the endocrine system. Daath would be linked with the pituitary and pineal glands, Tiphareth with the heart and lungs, Yesod with the gonads, etc. The two cubes interface at the throat (thyroid gland). This reflects the associations of chakras and glands in yoga.

The bottom cube centers in Tiphareth, Beauty. It contains the geometry of the Diamond Body. It is formed by joining the centers of the six plane-faces of the cube. Connect the vertices to form an octahedron. Fill in the Bravais lattice. It may help to make several xerox copies, and color the forms in different colors, until you can internalize them and rotate them in your mind.

The top cube is Daath, the Mystical Sephirah, or Upper Room. The nexus point of this cube is Knowledge or Gnosis, the Cosmic Downloading Channel, uplink to the Archetypal. The Vector Equilibrium joins the centers of the lines forming each plane face.

The center of the V.E.M. coincides with resonant neural cavities in the center of the brain. This system is coordinated by the High Priestess (Key II, going from Tiphareth to Kether, intersecting Daath). This is regulated by the pituitary and pineal glands which lie at the far ends of the cavity.



This matrix depicts the standing wave set up in the aorta and brain. It illuminates "secret paths" on the Tree of Life. It might be viewed as a form of the Tree of Knowledge. The temptation would be to stop at this point (Daath) and not merge back into the soul's proper home. It is the fate of many souls who remain trapped within Time. They are enthralled with the phenomenal world, and do not wish to cross the Abyss.

There is a curious phonetic similarity between this word Abyss and the Indian word, *abhyas*, which means spiritual practice or exercise. There is indeed an Abyss between intent and practice. In the middle of being there is non-being. This is the mystery of meditation and Vector Equilibrium.

(1) Aleister Crowley, *BOOK 4*, Dallas, Sangreal Foundation, Inc., 1972, p61.
[Tiphareth: Diamond Body/Throne-Chariot]

D. DAATH: THE THRESHOLD OF THE WORLD OF FORM

We are now in a position to examine the correspondences between DAATH and the Vector Equilibrium Matrix. We might also elaborate on the mystical state produced by use of the figure.

One of the earliest Qabalistic documents, *THE BOOK BAHIR*, contains an intriguing passage, in this regard:

It is I who have planted this 'tree,' that all the world may delight in it, and with it I have spanned the All and called it 'All'; for on it depends the All, and from it emanates the All, all things need it, and look upon it, and yearn for it, and from it all souls go forth. I was alone when I made it, and no angel can raise himself over it and say: I was there before [x]e; for when I spanned my earth, when I planted and rooted this tree and caused them to take delight in each other and (myself) delighted in them--who could have been with me to whom I might have confided this secret?

This tree of God, which is the tree of the world but at the same time the tree of souls, is spoken of in other fragments of the Bahir. In some passages, however, it is not represented as something planted by God, but as the mythical structure of God's creative powers.(1)

When we recall the properties of the V.E.M. there is an interesting correspondence with this "mythical structure of God's creative powers."

12 vertices
8 triangular faces
= 50 symmetrically positioned topological features
6 square faces
24 edges

In this sense, the V.E.M. = 50. The Hebrew word for 'All', 'every' also = 50. This word is spelled Kaph-lamed (k-l). The numeration for V.E.M. itself might be V=6, E=5, M=40 = 51, the number of the Hebrew Jubilee, a very holy number. One can only speculate on the meaning of "All + 1."

As stated in the beginning of this treatise, Aleister Crowley declared:

The theogeny of our Law is entirely scientific. Nuit is Matter, Hadit is Motion, in their full physical sense.(2)

It may seem strange that Infinite Space is equated with matter. But even in the deep vacuum of space, there is still motion, matter and energy. Empty space is not empty, but suffused with fluctuating fields of energy. As this energy matters it warps or bends space/time around it. Matter and its surrounding space are inseparable.

Crowley gave the numerological attribution of Nuit as N=50, V=6 = 56. Curiously, we also find this number in the Isotropic Vector Matrix, I.V.M. = 56. In Synergetics, there are 56 axes of cosmic symmetry, (533.22).

[DAATH; Vector Equilibrium Matrix]

[Figure : Isotropic Vector Matrix]

There is further correlation with the Hindi form of Nuit, *Shakti*:

Sh=300, A=1, K=20, T=400, I=10 = 731

The meaning may not be readily visible, without further corroborating. The Qabalists added the digits of numbers together, for example 731 is $7 + 3 + 1 = 11$. This type of reduction gives further information on the implicate meaning in words.

Now, we readily see that NV = 56 = 11; IVM = 56 = 11; Shakti = 731 = 11.

The number for the spiritual form of matter expressed as feminine deity is 56, which reduces to 11. Crowley calls '11', the "*Key to All the Mysteries*."

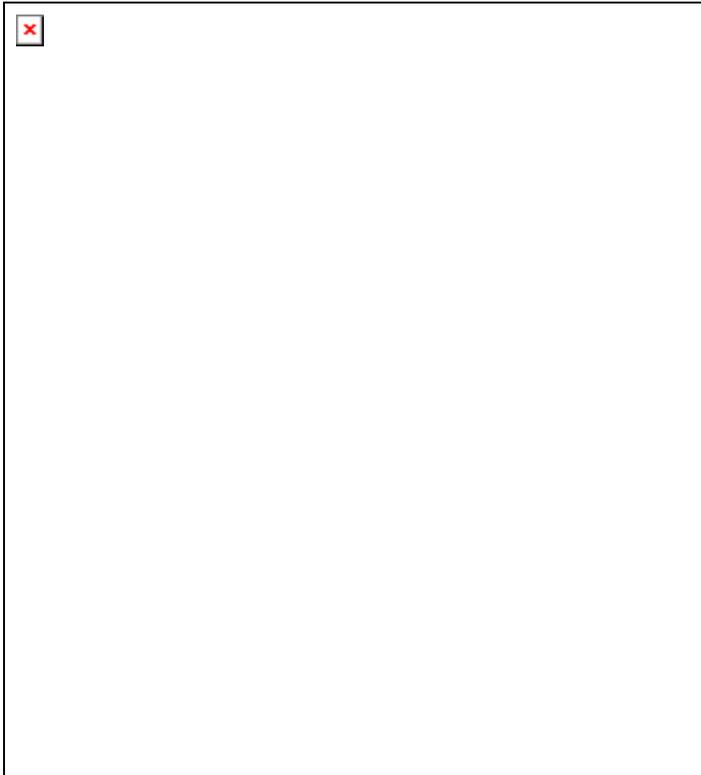
Gareth Knight has linked Daath with the Isis Mysteries. He says this mythology is the safest way to work the sphere Daath. It is through this sphere that the Isis force functions. According to Gareth Knight, in *EXPERIENCES OF THE INNER WORLDS*:

*The various cycles of Isis mythology give contact with archetypes on different levels.
...the path of transmutation and sublimation of the psyche towards the consciousness*

of Daath can be trodden with a minimum of danger, for this particular line of meditation will build forms into the psyche which will hold the forces contacted whether in the depths of the instincts or the heights of consciousness. These states have to be worked over and over again on a higher arc. Isis was able to perform miracles, to heal, to bring the dead to life. Indicates the ability to impart to others, even through the senses, the wonder and beauty, the glory and the joy and the power of the immortal spirit.

The Isotropic Vector Matrix is an omnitriangulated, omnidirectional grid which is the matrix, or mothering system, which fosters both the V.E.M. and the Diamond Body. We could use her initials imaginatively. This subtle representation could be "seen through" as the Isis Veil Mandala.

This symbolism reiterates our topological position on the Tree of Life. We are traveling up the HIGH PRIESTESS path (which corresponds with the archetypes Isis, Artemis, Diana, Blessed Virgin Mary, etc.) The path intersects or traverses the region of Daath.



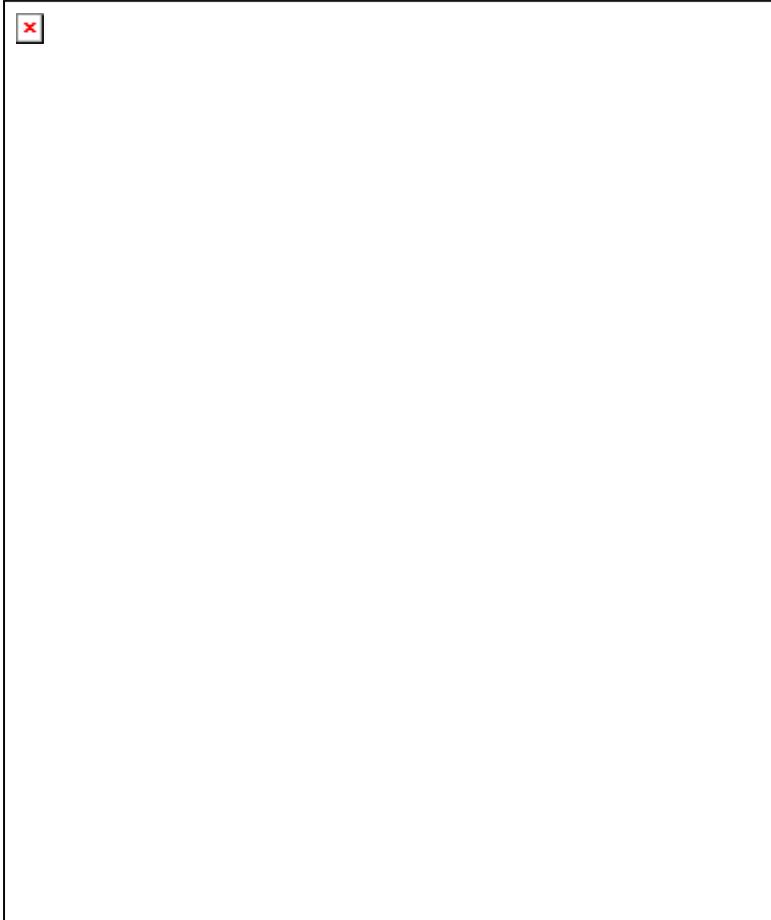
"Artemis," ©1976 photo by Robert Avalon

[Figure : The Veil of Isis]

The concept of the Veil of Isis of the gnostic sects could be approximately equated with the Hebrew description of the veil before the Throne of God. The Jews called this veil *Pargod*.

Gershom Scholem described this veil:

Metatron describes to Rabbi Ismael the cosmic veil or curtain before the throne, which conceals the glory of God from the host of angels. This cosmic curtain, described in the BOOK OF ENOCH, contains the images of all things which since the day of Creation have their pre-existing reality, as it were, in the heavenly sphere. All generations and all their lives and actions are woven into this curtain; he who sees it penetrates at the same time into the secret of Messianic redemption, for like the course of history, the final struggle and the deeds of the Messiah are already pre-existent real and visible.(3)



Elsewhere, Scholem goes on to state that the pargod (curtain or veil) separates the One Who sits on the Throne from the other parts of the Chariot. Upon it are embroidered the archetypes of everything that is created.

...all the souls are initially woven into a curtain (pargod) that hangs before the Throne of Glory, and this symbol of "the curtain of souls" was both adopted and adapted by a number of classic kabbalistic texts. The entire past history and future destiny of each single soul is recorded in this curtain. The pargod is not just a mythical fabric composed of spiritual ether which contains or is capable of receiving a record of each man's life and works; it is in addition the abode of all those souls that have returned from below to their native land.(4)

Thus, the *pargod* is a "consciousness field." It is interesting to note the semantic similarity to the Eastern form of this topological area. In India, this spiritual region is known as *Parbrahm*. Brahm being the God of physical manifestation, they are essentially the same.

There are a series of mystical experiences at Daath, which in yoga are termed Jhana states, or Knowledge ecstasies.

Those who experience these states are called Gyanis or Gyani Yogis. Their discipline includes three major divisions describing their intent:

1. Detachment (Vairag)
2. Discrimination (Viveh)
3. The Six Riches (Khat Sampatti) including balance (equanimity), self-restraint, indifference or freedom from ceremonial worship, patience, faith, and deep meditation.

These qualities may be seen as corresponding with the magical Virtues of Daath-- Detachment. Perfection of Justice and the application of the Virtues untainted by personality considerations. Confidence in the future.

References

- (1) Gershom G. Scholem, ON THE KABBALAH AND ITS SYMBOLISM, Schocken Books, New York, 1965, trans. Ralph Manheim.
- (2) Aleister Crowley, THE COMMENTARIES OF AL, Samuel Weiser, Inc. New York, 1975.
- (3) Gershom Scholem, MAJOR TRENDS IN JEWISH MYSTICISM,
- (4) Gershom Scholem, KABBALAH, N.Y., The New American Library, Inc. 1974, p158.

V. CONCLUSIONS: THE QUINTESSENCE

A. NEURAL FEEDBACK AND BRAINWAVE TRAINING

"Gentlemen, I have a confession to make - half of what we have taught you is in error; and furthermore we cannot tell you which half it is."

--Sir William Osler
(to a graduating medical class)

A man named Caton first discovered electrical rhythms within the brains of animals in 1875. It was over 50 years later when Hans Berger showed that man also had these rhythms. His original search was in the hopes of finding the physical link between man's mind and his body.

It was this mind/body question which led him to dedicate his life to finding this link. He became interested in the work of Caton and others and set up his own laboratory to further investigate the electrical activity of the brain.

After 20 years of research, he was first able to record the brain rhythms of a human. He spent another 10 years convincing his colleagues that this rhythm came from the neurons of the brain, not from blood flow or connective tissue. His original studies also showed that this rhythm changed with age, was vulnerable to sensory stimulation, and was affected by body chemistry.

World War II broke out and Hans Berger never finished his original work: crack the code of brain rhythms and their link to "psychic functions." Since that time, no one else has either. Later research centered around the more practical applications of the EEG to epilepsy, brain metabolism, brain functions and the levels of consciousness.

1. BASIC METABOLIC RATE (BMR):

Brain metabolism is directly related to body metabolism. One facet of the human body that the EEG will monitor is that of brain metabolism. Such gross metabolic dysfunction as liver and kidney failure are easily seen with the EEG. Epilepsy is also seen as resulting in a metabolic dysfunction within the brain. Because of these and other important factors, the EEG was incorporated into the medical systems of Western society.

The EEG is also a good reflection of how well oxygen is metabolized in the blood. Your body needs oxygen in order to convert food resources into energy. Any deviation in oxygen intake and carbon dioxide output changes the EEG reading. Both hyperventilation and hypoventilation cause the EEG pattern to slow down. The amount of sugar, as a food resource, also affects the EEG.

2. BRAIN ACTIVITY AND THE SOURCE OF ALPHA WAVES

The EEG is considered to monitor "gross" neuronal activity. It does not monitor individual neurons per se, but large groupings. Whenever rhythms are seen in the EEG, it is the net result of many thousands of neurons "in unison."

Because alpha is seen so easily in the EEG, it was originally thought that there must be some kind of intracranial control mechanism (pacemaker) that caused all of those neurons to fire in unison.

Recently two Dutch scientists claimed to have proven the existence of such an alpha-pacemaker. It supposedly was located in the thalamus, located in the brain stem. It was thought to gate impulses from the body (spinal cord) into appropriate locations in the brain. Hand impulses are thus gated into that part of the brain designated as hand. Alpha, then was thought to be a very rhythmic gating of the information from the body to the brain.

This rhythmic gating results in alpha. It is thought to be the result of a very relaxed state. Non-rhythmic gating, resulting in dyssynchronous brain wave activity, was considered a type of coping response to impinging stimuli. Since the pacemaker theory of alpha is still tentative, it has not yet received wide recognition within the scientific community. This is a result of a very complex relationship between

autonomic nervous system activity, brain metabolism, age, and a host of other pertinent factors.

3. LEVELS OF CONSCIOUSNESS

One of the most important facets of the EEG is that it is an excellent indicator of levels and states of consciousness. Audio or visual inspection can determine whether a person is alert, relaxed, drowsy, asleep or even dreaming. Specific detail and arbitrary limit-points for various levels of consciousness are now defined by EEG parameters. The field of altered states of consciousness (ASC) and exploration and control of consciousness are all a direct result of this very important tool.

It is often through the introduction of these new tools that new techniques and discoveries are made. The tremendous advances in electronics made in the past decade have advanced sophisticated equipment that stimulated psycho-physics and research in new ideas in science. This is especially true in the area of biofeedback and self-control technology.

4. BIOFEEDBACK TRAINING

The technique of biofeedback is based on the fundamental process of instrument learning. A situation gives rise to several variable behaviors. One response is in some way rewarded or reinforced. Learning occurs as this response occurs successively more and more quickly and reliably.

Essential to this learning process is the receiving of information in a feedback loop, similarly to servo systems. This can be done via visual or auditory stimuli, which tell us when we have made the correct response or moved closer to our goal.

This is made possible by using electronic feedback loops (such as those provided by an Electroencephalophone or EEP) and a psychological technique called operant conditioning. The first successful attempts were attributed to Joe Kamiya in the late 1950's. Essentially, his technique gave a signal when he achieved specific levels of consciousness. Its full potential has yet to be realized.

Behavior has traditionally been divided into two categories:

- 1. Voluntary control, such as walking, writing, muscular activities; and,**
- 2. Autonomic control, such as heartbeat, blood pressure, brain-wave production, visceral body processes.**

We learn to guide our behavior by receiving feedback on the results and then making appropriate adjustments. This is the place where the voluntary and involuntary behavior differ. While we can receive feedback in our writing, we do not have such access to those from the visceral activities.

If provided with this absent (bio)feedback via electronic means, it has been shown conclusively that we can learn to exert a "voluntary" control of\over inner bodily

functions. Yogis have done it for centuries, taking years to learn the disciplines of mind control, self-hypnosis, and autonomic regulation.

Recent research into control of heartbeat, blood pressure, body temperature, brainwave production, and pain control indicates that conscious control is possible. Research into control of brainwaves through the use of biofeedback techniques has centered around alpha waves, and more recently, theta. Some of the more well-known researchers are Kamiya, Kasamatsu, Brown, Hart, Peper, Mulholland, Stoyva, Green, Walters and Green.

In discussing biofeedback research and results, one runs into a problem of semantics. It is the idea of learning to "control" one's brainwaves. It must be emphasized that in using these techniques, a person is not learning to directly control the neuronal electrical activity of action potentials and synaptic events in the cerebral cortex. One learns to control the subjective or mental event associated with the presence of alpha or theta.

Like self-hypnosis it requires not-doing or letting it happen. Very typically people "try" to enter alpha; then they "try not to try"; finally, they simply learn how to let go into the state. The experience may be different for each person each time depending on their frame of reference.

Changes in brainwave patterns, or blood pressure, body temperature and deep muscle tension are "physiological correlates of psychological processes that the subject learns to control."

5. BRAIN WAVE PATTERNS

The pattern of neuronal activity in the cerebral cortical section of the brain can be recorded electrically. This is done by measuring the electrical potential difference between two points on the scalp. The record is known as the electroencephalogram (EEG). Brain waves manifest themselves as oscillating voltage. They have two main dimensions: the frequency of oscillation and the amplitude.

The frequency predominantly determines the amplitude of the brain wave, but there can be fluctuations of amplitude at a given frequency. Brain waves are broken up into four main categories, determined by the frequency of the wave. The borders of these categories are more or less arbitrary. The following table is therefore only approximately correct:

[Brainwave Table]

Beta: This is the brainwave of normal waking consciousness. It is characterized as the state of being awake, alert, and concentrating. If this state is maintained for a prolonged period, it becomes associated with feelings of tension, worry, fear, or anxiety. Lower brain states are necessary on an occasional basis to maintain the alert aspect of this state. A visual-identification in the mind's eye occurs, a state where image are identified with form and specific objects.

Alpha: This is also a conscious state, but identified with the mental experience where images are not identified. It has come to be associated with feelings of pleasure, pleasantness, tranquility, serenity and relaxation. It can also imply a relaxed concentration. It is also a place of light sleep and dream states.

Theta: This state is traditionally labeled unconscious by western medicine. In recent years, however, people trained with autogenics can achieve this state and retain consciousness, similar to meditators. Theta has come to be associated with such things as hypnogogic imagery, day dreaming, sleep, and creativity. It has also been shown as the state where healing and regenerating of tissue occurs.

Delta: This state is predominantly associated with non-dreaming sleep or deep sleep. There are some reports of individuals achieving this set of brainwave patterns and still retaining consciousness. If it is achieved while maintaining a conscious state, "out-of-body" experiences (OOBE) are subjectively experienced and reported.

6. SLEEP CYCLE

The EEG pattern changes throughout the night. These changes can determine when dreaming occurs. The chart below is an average sleep cycle during those eight hours.

[sleep cycle diagram]

Stage 1 is the drowsy period of sleep, characterized by what is known as sleep spindles (spindle-alpha). Stage 2 is a sleep state where response to external and/or internal stimulation can occur. This stage is characterized by what is known as K-complex waves. Stage 3 means you are on your way to Stage 4. Stage 4 is deep sleep. It is also delta state and is not associated with dreaming. REM state (Rapid Eye Movement) is where most dreams occur.

Notice how an individual spends most of the first part of the night in State 4 sleep. The later part of the night is spent mostly in REM sleep. Therefore, most dreams occur toward the end of the night's sleep. When deprived of REM sleep, temporarily personality changes occur with other psychological changes. When lost sleep is made up, the person spends more the sleep cycle in lighter REM stages. In a sense, this makes up for that lost dream time.

Although there is a lot of variable data on EEG changes with age, there is a basic curve that shows the usual rate of development and change with time. Primarily the EEG frequency of a person starts very low, about 1-2 cps in a newborn infant, gradually increasing in frequency until the age of 19, where the normal adult rhythm, while awake, is about 20 cps.

[frequency chart]

Things which lower the EEG frequency are:

**sedative drugs,
LSD,
large doses of alcohol,
very low blood sugar,
lack of oxygen**

Things which raise the EEG frequency are:

**caffeine,
small doses of alcohol,
barbiturates,
low blood sugar,
excess of carbon dioxide**

Hypnosis, per se, has little effect on the EEG, unlike meditation which influences it directly. What is contained in the hypnotic suggestion will change frequencies and make the difference, for example, suggestions for relaxation, increased warmth, and blood flow.

7. HOW THE EEP WORKS

The EEP generates a feedback signal by picking up the very low voltage brain-wave signals with two or more electrodes. A high-gain circuit amplifies the signal and drives a wide band filter. This filter passes signals in the alpha through delta range and attenuates signals of higher and lower frequencies.

The feedback is usually in the form of a modulated white-noise with modulation at the brain wave frequency. There usually two controls, one for amplitude variation and the other to discriminate frequency bands for tighter control.

The cerebral cortex is the outermost part of the brain. It is this convoluting mass of tissue that gives man superior intelligence. The cortex of each hemisphere is divided into four main areas, called lobes. Alpha is found predominantly on the occipital lobe or back-part of the brain. This is the section which deals with visual systems. Alpha is also found in the frontal lobe, but not as easily. Theta is found more commonly on the temporal lobe, while the speech, sensory, and motor areas tend to show primarily beta activity.

Electrode placement usually uses a ground or reference point under one ear. The potential generated between the two electrodes is very important. Therefore, the second electrode is usually placed in the occipital region, just under the inion ("bump" on the back of the head) and to one side about 1 inch. The side chosen is the same side that the "ear" electrode is on. This gives the optimal gradient for easily monitoring brain signals.

8. POTENTIAL APPLICATIONS

Pleasure, relaxation, and sleep are associated with alpha-theta output. The combination of relaxing, clearing the mind and turning inward can be a very pleasant and rewarding experience. Learning to relax and to go from alpha to theta has proved to be beneficial to the insomniac. In some cases, it can also be a sleep-substitute.

Hypnosis subjects are much more susceptible to suggestion when in lower alpha states. It is now possible to achieve states of consciousness within several weeks of training equivalent to those of Zen masters with 20 years meditation effort. The main drawback is that when one learns these states, continual reinforcement is necessary for similar continued ability, day-by-day. It is a use-it-or-lose-it situation.

One of the main purposes for sleep is to transfer information and experiences from short to long-term memory. Concentration, learning and recall ability can and is greatly enhanced with alpha-theta control exercises. Recall capability is greatest in alpha state. Also, by learning to exclude all external stimuli when trying to achieve the alpha-theta control, increases one's ability to concentrate.

The reverie state which is indicated by theta and low-frequency alpha seems to increase hypnagogic and dream-like images. There is also a link between reverie and hypnagogic imagery and creativity. These images are critical for the creative process.

Other biofeedback directions include:

1. EMG (Electromyograph) for hypertension, deep muscle control, and reading improvement by eliminating "subvocalization."
2. THERMAL FEEDBACK for controlling body temperature at various points on the body. Current research shows that most individuals can raise or lower finger temperatures about 8 F.; useful in the control of migraine and tension headaches.
3. GSR (Galvanic Skin Response) is used as a lie detector and supposedly is a way of communicating with certain plants. although the latter is highly questionable, there is a statistical significance in the change of skin resistance in certain fish 8 hours before major earthquakes, offering a possible early-warning system for high-risk areas.

These are just a few of many suggested possible applications. Biofeedback research should provide more new discoveries and ideas for years to come. The latest possibility is its incorporation with Virtual Reality to heighten the experience even more.

V. CONCLUSIONS: THE QUINTESSENCE

B. VIDEO FEEDBACK: SELF-REALIZATION THROUGH YOGATRONICS

Abstract: A video feedback system is proposed, using a standard home computer and other immediately available hardware. Current research in the fields of brain chemistry and the brain's response to color, sound, and geometry is reviewed. A specific geometrical formula is developed, and physical analogs to current Jungian constructs known as archetypes are postulated. A series of electronic meditations are developed to create brain-body loops for interaction and self-realization, similar to those described in eastern Yoga.

Introduction:

Biological feedback (bios-life, feedback-return to the source) experimentation has been found to be particularly well-suited to the Western mind. The concept of time is much more important, everyone is in a hurry. Consequently, the western mind looks for "short-cuts", using technology. Research and experience has shown it to be a rapid and promising means toward such goals as self-awareness, health, and self-exploration.

Recent technological advances such as biofeedback instruments, have enabled man to realize the potentials of his inner power. These include mental concentration for problem solving, appetite control, preventive medicine, training to control heart-rate, blood pressure, and skin-temperature, anxiety, and others. Every day there are new examples, where this concept of technology enters our life. The state of this art has become very sophisticated.

The purpose of this paper is to show that, with currently existing technologies now standard in most homes, a technological transcendence is available, similar to ancient Eastern experiences of Kundalini. Health and expanded mental capability would be by-products. Using interactive multi-media, the television can now be used to change habits, personality, weight and other characteristics while broadening our self-realization.

The application of biofeedback research to the everyday lives of people has many implications. These can range from mass brain washing to expanded consciousness for all mankind. By integrating several fields of study, advanced technology now provides new tools for achieving altered states of consciousness.

Populations can be re-programed and individuals can become self-enlightened. An electronic meditation, using the most recently available information, is developed to create brain-body loops for interaction and control. The individual learns about the process of his own internal dialogue and can come to both sense, and later manipulate the loop of consciousness. Most of the hardware already exists and resides in most homes..

Biofeedback Research:

The technique of biofeedback is based on the fundamental process of instrument learning. A situation gives rise to several variable behaviors. One response is in

some way rewarded or reinforced. Learning occurs as this response occurs successively more and more quickly and reliably. Essential to this learning process is the receiving of information in a feedback loop, similarly to servo systems. This can be done via visual and auditory stimuli, stating when we have made the correct response or moved closer to our goal.

This is made possible by using electronic feedback loops (such as those provided by an Electroencephalophone or EEP) and a psychological technique called operant conditioning. We learn to guide our behavior by receiving feedback on the results and then making appropriate adjustments. This is the place where the voluntary and involuntary behavior differ. While we can receive feedback in our writing (for example), we do not have such access to those from the visceral activities. If provided with this absent (bio) feedback via electronic means, it has been shown conclusively that man can learn to exert a "voluntary" control over inner bodily functions.

Recent research into control of heart beat, blood pressure, body temperature, brainwave production, and pain seems to indicate that a conscious control is possible. In discussing biofeedback research and results, one runs into a problem of semantics. It is the idea of learning to "control" ones brainwaves. It must be emphasized that in using these techniques, a person is not learning to directly control the neuronal electrical activity of action potentials and synaptic events (in the cerebral cortex). One learns to control the subjective or mental event, associated with the presence of alpha or theta waves.

Changes in brainwave patterns, or blood pressure, body temperature and deep muscle tension are physiological correlates of psychological processes that the subject learns to control. Some of the more outstanding developments in biofeedback research include the following examples:

- 1. Relaxation:** Any degree of rapid, self-induced relaxation can be obtained by a number of biofeedback techniques. These include using one's muscle activity to operate the signals of an Electromyograph (EMG), even to the point of each individual muscle cell becoming relaxed.
- 2. Mental concentration for problem solving:** The brain wave patterns which accompany effective and efficient mental activity are well-known. They are now used via Electroencephalograph (EEG).
- 3. Appetite control:** When the compulsion to eat exists, the psychology and brain waves reflect this "drive state". The individual can train himself to recognize such a state by means of signals of his psychological activity which are displayed to him. He can then train himself to distinguish and continue to reproduce a non-compulsive state.
- 4. Preventive medicine:** The physiologic activity of each troublesome system can be used to "feedback" information about its own functioning. These include heart rate,

blood pressure, respiration, skin temperature, gastric activity, intestinal motility, muscles and so on.

5. Training to control heart rate: In using feedback techniques there are two major areas; (1) a wide variety of cardiac irregularities, particularly tachycardia, bradycardia, extra systoles and auricular flutter, and (2) psychologic anxiety and fear reactions.

6. Training to control blood pressure: Can be life-saving when the patient has the ability to maintain his blood pressure low enough to prevent developing both the symptoms of high blood pressure (headaches, dizziness) as well as preventing the more serious results in high blood pressure.

7. Training to control skin temperature in specific areas: An easy physiologic activity which individuals can learn to bring under control. Many disease processes involve constriction of the blood vessels in the hand (or foot or other areas). With feedback training, this vasoconstriction can be markedly reduced, with the consequence of relief from pain and coldness.

8. Anxiety: Numerous studies now indicate that a restful, relaxed but interested subjective state is associated with alpha activity. Clinical emphasis is on assisting the subject to produce lower frequencies with higher amplitudes.

9. Education: Simple feedback systems are now used in conjunction with computer assisted teaching machines. It is well-known that the attention span of children is short. An accurate indicator of the length of each span of attention would be extremely useful in maximizing the use of teaching machines.

10. Drug use: A patient can increase the effectiveness of his drug treatment. Since feedback techniques are applicable to all body systems, they decrease intestinal contractions, lower blood pressure, change skin temperature, etc. They also alleviate associated problems (muscle tension, anxiety, irregular heart beats, respiratory distress, etc.). The patient can reduce undesirable side effects of the drugs he needs to take.

11. Lie Detector: Some newer modifications with Galvanic Skin Response (GSR) have been used to determine stress potentials. The surface of the body does contain information about internal state functions; it is just a question of isolating variables.

Combined with video imagery received from a television screen, feedback becomes a means for human beings to experience a focused centeredness, not unlike trance states produced by Tibetan monks and other adepts.

Video Feedback:

Video feedback is a continuously progressing feed-forward loop of light traveling through a video recording and projection system. It usually interfaces a television camera and a television screen or monitor. Through the manipulation of the television camera, it is possible to create, manipulate and define video images.

Biofeedback involves the externalization of internal states and processes. This permits easier manipulation of the process. Video feedback involves the interlocking of internal and external loops. In effect, there are electronic mandalas with great powers for focusing concentration, stimulating artistic appreciation and altering conscious perception.

Electronics creates video mantras through mantratronics, yogatronics and video light loops. Video systems detect patterns of energy at the camera, and then processes these patterns and projects them onto a screen. Video feedback loops the screen back to the camera. Patterns arise which can grow brighter (positive feedback), fainter or remain constant (negative feedback).

The next stage is to add the human brain and other autonomic functions into the light loop. As the brain might act as the "camera," the signal sent to the processor could also be altered, in such a form as to "more efficiently move the brain into a previously determined state of awareness."

Today, video feedback has been only used to permit eye-hand manipulation of the described interlocked loops. This then helps the individual to understand and manipulate his own inner loops (eye-hand) more easily. But what if we were to monitor brain waves? The signal could be "processed" and a computer could then direct an "altered" signal to the screen monitor. This "altered" pattern would be calculated to be "most efficient" feedback in assisting the brain achieve the "desired state".

We are not talking about those auditory and visual cues one uses to single out motor units and control their isolated construction. There are specific patterns, colors and sounds which, in themselves, move the individual toward those pre-determined states. With this in mind, the system for feedback would include:

- a. Brain/body monitors/amplifier system. These signals then "go" to a ...**
- b. Gating system, which sets threshold and level sense with timing parameters. The brain/body information is now ready to go to ...**
- c. Pattern recognition (associative, memory, array). The signals then go to a ...**
- d. Probabilistic synthesis control system. This has the ability to be pre-programed for specific signal forms to the ...**
- e. Video/audio feedback devices. These deliver the "altered" stimuli to complete the loop. The new evoked responses are registered, and the process begins anew.**

The key is the Probabilistic synthesis control system. It is here that the feedback loop system can be altered for specific goals or direction of meditation. For example, in Florida several grade school systems use a brain-video feedback system. The children watch their lessons on TV. When their attention begins to wander, their individual brain patterns drop in frequency. At a certain (predetermined)

frequency, the lesson is stopped (by a computer) and a new stimulus is given to the child (usually an action scene, i.e. Western). This "snaps" the consciousness of the child back to "attentive" and the lesson is resumed.

This simple form of video feedback in Education has improved reading and math skills 40-80% above norms. Imagine what advanced research in computer-graphics might yield.

Pattern Recognition:

A primary function of the brain is in the recognition of patterns. This is the ability to perceive general inter-relationships between different parts of an input signal. These signals are usually visual, acoustical or tactile. It can also do this for ideas and concepts.

The perception of such unexpected relationships lies at the very heart of humor and creativity. The difficult part of pattern recognition is to see past the local variations, into the pattern lying beneath. This is not a signal-to-noise ratio problem because the patterns beneath are not necessarily the same.

Recognition does not seem to be simply a matter of recall from a vast memory, because we can distinguish patterns (like speech) without ever having heard them previously. Techniques like filtering, adaption, correlation, recollection, etc. are used today. The understanding of recognition is largely a matter of understanding how to deploy these various activities.

Equally important with pattern recognition is pattern synthesis. These are the techniques of generating the complex electric nerve signals which give rise to speech and coordinated muscle movement. The ability to speak or write reveals a genuine creative ability. In some sense, pattern synthesis is the converse of pattern recognition. The synthesis process must play an important role in the use of context in recognition.

Memory and its function completes the primary functions of the brain. There are three basic types of memory:

1. Short-term is responsible for the events of the last few seconds. It is very accurate. It involves the storage of the signal long enough to bring context to bear on the recognition process.
2. Long-term is used to recall knowledge we have acquired, events experienced and ideas from previous thoughts. It is associative in character and stores can not be addressed except by association. This means that some quality of the signal processing mechanism makes some signals more suitable for memorizing than others.
3. Similarity function store contains the signal processing algorithms. These are the acquired habits of thought. Once stored, they are very difficult to erase but very easy to ignore.

It is in the short-term and long-term memories that we remember "facts" and explicit techniques, while it is in the function-store that we either learn or know how to think. Other functions of the brain would include signal processing, learning and adaptation. I will discuss these in a later section.

At the heart of the problem of pattern recognition is the concept of similarity. Since no two patterns are identical, the act of pattern recognition is the act of perceiving a degree of similarity between an observed pattern and that in memory. This enables us to then classify the new one. It is therefore critical to apprehend different kinds of similarity, and a very important part of pattern recognition involves selecting the appropriate similarity function.

Pattern recognition nearly always involves some form of iterative process before a firm decision is made. It is either necessary to solve simultaneous equations, or to form a hypothesis of what the pattern must be (usually with highly inadequate data). If the latter, then it must be tested, until it becomes more or less recognizable.

The importance of context in the process of pattern recognition is clear. The kind of similarity to look for in correlating two signals depends on context. A pattern is really nothing more than a feature in the context of other features. This decoding of signals by the use of contextual information is a vital part of all aspects of pattern recognition.

A Model for Pattern Recognition:

The repeated pattern of iterative feedback loops reflects a further repeated pattern and demonstrates how signals are processed by the brain. As modeled, a pattern is nothing more than the inter-relationships of the subpatterns comprising it, and these subpatterns are the inter-relationships of various features. Conversely, features are only recognizable in terms of their contexts (the patterns they comprise), and patterns are only recognizable in terms of their environment.

It is therefore expected that all aspects of pattern recognition are performed in the same system. The model proposed has three main iterative loops of which the signal analyzer, the similarity function and the addressing of the associative stores are optimum. Patterns in general differ not so much by some quantitative measure as by some qualitative dissimilarity, or quality of the pattern.

Figure 1 shows a complete block diagram for pattern recognition with a small home-type computer:

(insert figure)

Figure 1: Block diagram for pattern recognition feedback loops.

This type of system was first proposed by Hill (1) in 1969 for a speech recognition machine:

- 1. The analyzer contains transducers and circuits which transform the signal into sequences of features.**
- 2. The associative store should contain templates of feature sequences as well as templates of deep structure and class. The function is to bring contextual information to bear upon the recognition process. Correlation eliminates or reduces errors, and plays a major role in synthesis.**
- 3. The comparator is where the input feature sequences are organized into a form in which they can search the associative store for similar storage.**
- 4. The similarity function store contains the algorithms specifying the various types of similarity and classes of patterns it can handle. If you wish the machine to learn, it is into this store that the new algorithms would be written, representing new points of view.**
- 5. The generalizer is a higher level pattern recognizer in that it identifies similarities between classes. Via the store selector it directs the search through the associative store to those parts of it which are most likely to contain the patterns sought.**

Every computer whose operation and structure is completely known will consist of two independent systems, the hardware and the software. The hardware contains the memory, input, and output devices, and perform the actual work. The software provides the instructions for what to compute, which alone determines the meaning of the computation.

For example, one could monitor the state of every computing element at all times and, in the case of a binary language, portray this by a table of zeros and ones as a function of time. However, without the knowledge of the software, such a tabulation provides no clue to the meaning of what is being computed. The software alone determines the intelligence content of the computer output.

The Software:

New research has demonstrated the capability of showing clear relationships between specific brain output patterns of a given artist and specific types of expressive, artistic activity. In addition, it has recently become possible to isolate aspects of the brain's evoked response to sensory stimuli, physical and imagined.

Clynes (2), a medical doctor who worked at the Research Center in Rockman State Hospital in Orangeburg, New York, has shown that characteristic and highly repeatable response shapes or waveforms can be recorded from motor activity during the overt expression of a specific emotion or idea or during physical articulation of rhythmic pulses in music from a particular composer.

Recent and current research is showing that the brain's evoked response to a sensory stimulus can be broken down and analyzed in such a way as to relate specific peaks in the evoked response waveform to specific aspects of either the

stimulus itself or the processing behavior of the participant. The evoked response is primarily dependent on two factors:

1. The physical parameters of the stimulus, or
2. The significance or meaning of the stimulus that is dependent on subjective experience.

E. Roy John (3), a pioneer in the understanding of the brain states:

"When an experienced organism receives a novel and meaningless stimulus and generalization occurs, this new afferent input in a familiar context activates the representational system in such a way as to cause release of a common mode of activity like that stored during the learning experience."

and

"Analogous data from experiments with human beings indicate that phase-locked potentials are released at the time that absent stimuli are expected to occur. Furthermore, the waveshapes released when particular visual stimuli are imagined resemble the waveshapes of potentials evoked by actual presentation of the imagined stimuli."

Clynes took a number of volunteers and shaved their heads, placing a series of electrodes in rosette patterns on various regions of the head. These included the temporal, frontal lobe section and occipital regions of the brain. In this way, not only were brain frequencies monitored, but directional shifts in these frequencies could also be determined by the geometry of the electrode configuration on the skull.

The original purpose of Clynes' work was to find how precision and order exist in brain processes; to discover what is inherently programmed in man and how he might make use of that inherent program.

These individuals were given a number of images (form) and colors to concentrate on while their brain was monitored by computers. Recording from opposite pairs of electrodes simultaneously, he obtained views of the electrical activity from different angles: mathematically, a spatial differentiation of the electrode vector. What he was mapping was consciousness (literal).

He literally mapped fields in the human brain. A computer was able to identify and reproduce those geometrical figures which that human was concentrating on, either as a geometric form, or color of some object. The individual did not even have to look at the pattern, but simply concentrate "in his mind's eye". A standing wave means that the wave is not changed, but is holding itself steady in one certain geometrical thought.

A number of very important observations were made:

1. Certain qualities and relationships were of greater importance to the computer than such quantitative factors such as intensity. This meant that the brain's system of identification is based on differences, rather than intensity of the signal.

2. Thin lines were found to produce characteristic evoked potentials, irrespective of size. The form itself is transduced into another form in the brain "space-time" which can be measured. There is a one-to-one correspondence between visual forms of the stimulus, the response forms in the brain, and the perception.

This is, perhaps, the first physical description of the field of an archetype. It is a geometrical structuring and has uniqueness.

3. The process of inhibition is as important for transducing the external world as is excitation. Concentration on specific lines of geometry does not constitute the changing stimulus, but their steady presence systematically and radically alters the response to another changing stimulus.

4. Changes in intensity of a single color produce very simple response shape. Light and darkness (as opposites) show no evidence of being different values of the same variable. Rather, they seem to be the result of stimulating and also of inhibiting different receptors. Thus, the evoked potentials to light and darkness in no way may be said to be positive and negative, respectively. White, for example, appears in this view as the result of mutual inhibition of color.

5. These experiments clearly imply an inherent form of organization and not a random learning of nerve nets. It is possible to mentally recognize and perceive the stimulus within the first portion of the evoked potential. Responses (in the brain) which occur later than 0.3 seconds are seen as systematic processes, or tuned circuits to those responses to specific in-coming stimuli. This is a form of resonance in the brain. They act like keys to "unlock" specific parts of our brain, often being observed below psychological threshold levels (subliminal).

Geometry and Archetypes:

It is now evident that every stimulus for corresponds to a particular space-time" shape in the brain (in terms of electrical activity). A computer can even identify these shapes, much like "looking into someone's mind and seeing their pictures". These "space-time" shapes are evidence of relationships between the external world and its representation in the brain.

We have chosen to call these spatio-temporal representations "keys". These "keys" seem to operate on "locks" in our brain in a manner similar to "minting" of DNA production and replication. An archetype may then be seen as a specific geometrical system of standing waves occurring in the brain as a "space-time" shape or "key".

In living organisms, opposites receive their structuring of symmetry from particular combinations of spatial and temporal aspects. Like the reins on a horse, each of the opposites of the physiological pair has its own place. While they do balance motion, in themselves they do not cancel each other. This geometric aspect makes them

capable of being opposites. The activity of each arm determines the quantity of the turn; the spatial identity of the rein determines the quality. There is no monotonic (or linear) transition from one to the other, passing through some form of "zero".

Information is embodied in a field, rather than just being a field. The geometrical images are basically an abstract quantity of information; a field relationship between one point and another in the universe. Unlike most engineering channels of communication, biological channels are dynamically asymmetric. Information on change is transmitted across space asymmetrically with respect to the direction of the change of the variable.

This means that if a biological system is to be informed symmetrically about dynamic changes, it requires two channels. The basic reason for this dynamic asymmetry is that biological channels for control use the concentration of molecules to transmit information at some point along the channel. This must involve an asymmetry since the creation and transportation of molecules is generally accomplished by different means from their breakdown and removal.

Concentration can be made a function of information as long as the change requires an increase in concentration. Decreasing concentration generally cannot be accomplished as fast through the same channel. The level of hormones which have issued into the bloodstream cannot be decreased through the action of the same gland. A decrease in concentration is produced by metabolic processes or through the increase in level of a counteracting hormone or chemical. In either case, the decrease in concentration is produced through quite different channels from the one producing an increase in concentration.

The significance of this asymmetry of uni-directional rate sensitivity in the "space-time" patterns in the brain is that if it were not for this principle, interaction and cancellation of opposites would prevent the formation of unique "space-time" patterns for each perception. In this case, memory could become impossible (as defined).

An event is registered as a pattern in space as well as a pattern in time. With the sense of touch, for example, removal does not cancel the sensation, even when the touch was short and momentary. A distinction can be thus made between quality and quantity. Quality is given by the channel location, quantity by the firing pattern in the channel.

In living organisms, opposites receive their structure of symmetry from a particular combination of spatial and temporal aspects. It is the geometric properties which makes them capable of being opposites. This "rein control" implies distinction between quality and quantity. With each rein, messages are similar and not opposite in character. The activity of each "rein" determines the quantity, the spacial identity of the "rein" determines the quality.

Any view of the universe is an interplay between information and energy. By information, it is meant as those processes which provide recognition and

identification of separate existences. By energy, it is meant those transformation and displacement of the contents of space. This interplay between information and energy involves identity, quality and recognition.

The Vector Equilibrium Matrix:

The use of geometry and geometrical forms as video tools offers intriguing possibilities. They allow experiential interaction with archetypes or god-forms. They also grant access to those specific altered states where one experiences the eternal aspect of sacred time: A consciousness of immortality.

A geometrical image is developed in the book **THE DIAMOND BODY: A Modern Alchemical View of the Philosopher's Stone** (4). This image comes from the field of solid state physics, corresponding to both the Jewish mystical traditions and current concepts in imaginal psychology. A mathematical model is generated to assist the development of anima consciousness via a visualization exercise, called **The Diamond Body Exercise, (DBE)**.

A series of biological resonances occur between specific internal-state functions and the "outside". These resonance relationships are discussed and specific models are given to aid visualization and resonance. This practice of meditation develops a common ground, uniting psyche with matter. Through the stabilization and equilibrium fostered in the individual during meditation sessions, the individual is brought into increased harmony with the environment. More important, a "repair function" is now available, one able to reverse those entropic functions related to libido.

The DBE is a breakthrough in meditation techniques. Steeped in mystery, the Merkabah Chariot of Sephir-Yetzirah, Ezekiel's vision and "the Cube of Space" are all the samething. It is a regeneration meditation for immortality. And, it is now available to the common household....

It is the contention of this book that the most fundamental (pre)geometric form is the **Vector Equilibrium Matrix (VEM)**. The vector equilibrium construct, first proposed by Buckminster Fuller (5), describes the most economical lines of movement within the atomic nucleus. This geometry form leads directly to the **Diamond Body of Cube of Space**.

To place oneself inside this structure, or to project this matrix form outward as a visualization, creates and generates a resonance within the "space-time" shapes of the brain. The **Vector Equilibrium Matrix** is a geometrical mandala resonating with the psychological analog for the **Philosopher's Stone!**

The **Vector Equilibrium Matrix** is a visual tool which connects macroscopic structures to quantum modes. It graphically depicts the sphere, whose center is everywhere and whose circumference is nowhere. It can be used as an access tool for realizing multiple quantum ordering.

To begin to understand this form of order, a new tool for perception is needed. The new concepts of order involve the discrimination of the relative differences in "space-time" (and similarities). Attention should now be given to similar differences and different similarities (6). Such a format in mathematics is called a ratio, or matrix field. *"The universe is a cosmic computer on the pre-geometric level of information in which space and time appear as secondary statistical constructs."* (7)

The Vector Equilibrium Matrix is such a matrix field; although seen as a geometry at any stage, it is pre-geometric in that it describes the change from one stage to the next. It is a quantized state of information.

A video projection of this Diamond Body structure is now possible, with rotation of axis and "rising on the planes" (from spherical coordinates). The resulting geometries create specific "space-time" patterns in the brain. The resulting patterns allow "access" to those specific archetypes (associated with specific "space-time" patterns). They are known as "Star Gates" or "planetary gates" in mystical literature.

Real-Time Color Graphics:

Most problems in complex structure and function require visualization. And, as the size of the structure increases (like "rising on the planes"), a third dimension is needed to give visualization perspective (context).

Real-time color graphics systems have unique advantages for display of information. Studies of the structures and interactions of large biological molecules require both coordinate data and three-dimensional visualization. Software has been developed that now allows real-time display of color line and surface displays (8). Now that we have hardware and software for selective display of complex objects in color and stereo with real-time rotation, depth cueing, and interaction, a program is now underway to insert the Vector Equilibrium Matrix into this program for use in a video feedback system.

This real-time color graphics system would respond to logic circuitry in the similarity function store. The feedback from the video section would get up an iteration loop, going from the "space-time" patterns in the brain to the television. A rotation or depth cueing ("rising on the planes") would create a similar (and very specific) corresponding change in the "space-time" pattern.

Most important, this could be done as a pre-programmed response, directing our brain to specifically desired "experiences" or archetypal encounters.

Considerations In Design:

A general purpose bio-medical preamplifier should form the front end of any comprehensive system. Accurate frequency discriminations (2-20 Hz) and the feedback system should be capable of responding to peaks or zero crossing of in-band signal oscillations. It must be able to change in signal amplitude.

This means that a good variable threshold detector and envelope follower should be included in the over-all system. The input section should be capable of either AC or DC coupling, depending on specific applications and providing a choice of fixed gain of about 10(3) or variable gain of about 10(5). Other measures such as time spent producing the desired signal are useful but more expensive. They are also less likely to be needed.

The major sources of error are those due to biological sources, electrodes, amplifier, interaction between the amplifier and sources, filtering techniques, and detection circuitry. For example, as EEG signals are among the smallest recordable through gross methods, they are the most plagued by "leakage" from muscle potentials (EKG signals).

Thus, it is necessary to use differential amplifying techniques in order to obtain accurate results, subtracting background signals, commonly a problem between closely placed electrodes. Other factors presenting problems are the high impedance of biological sources, typical 100K ohms or higher on the skin. The body is also a rather good radio/TV antenna, picking up unpredictable DC noise.

Complete designs for comprehensive biological monitoring/feedback units are described by Rosenboom (9). He and a number of other artists built these units to drive electronic synthesizers and color organs in the early 1970's. They were essentially creating "alpha-concerts". A number of shows were performed and the specific logic and hardware is outlined. There is even a design for an Evoked Response Peak Detector design by R. Koehler in this volume.

Summary:

The purpose of this paper is to show that, with existing technologies in hardware/software, it is now possible to use the home computer/television as a very powerful tool, where health and expanded mental capabilities are only by-products.

A new dimension in learning and self-realization is available for the home. Biofeedback research has advanced the fields of medicine and health. It is now possible to control and direct specific autonomic functions previously either not available or semi- control over a ten year yoga program. Video feedback systems are now successfully used in learning/education programs.

New models on pattern recognition and the nature of information nets allow for simple models which could be used with home computers (large memory).

The research of Clynes and Hill shows a clear relationship between specific brain output patterns and specific geometry. A first state for describing the physical analogs to unique archetypes is developed. Specific geometrical images will invoke specific brain responses.

A formula emerges. The Vector Equilibrium Matrix is a visual tool which connects (or describes) the change from one state to another. It is the method in which a specific "space-time" pattern changes into another with uniqueness. This matrix has

already been set into a grid of values and qualities, based on Jewish mystical traditions and current concepts in imaginal psychology.

A mathematical model is generated to assist the development of anima consciousness via a visualization exercise called The Diamond Body Exercise. A video projection of this Diamond Body structure is now possible, in the home. The resulting effects lead to the possibility of pre-programmed response, directing our brain to specifically desired "experiences" or archetypal encounters.

Previous designs for biofeedback systems using audio and visual are described. The immediate applications of this in the home are staggering. Populations can be re-programmed and individuals can become self-enlightened. Electronic meditation creates brain-body loops for interaction and control. This state of control is a form of technological transcendence. On the mundane level, this proposed system could be used to loose weight, stop smoking and change other deep habits.

Conclusions:

There is obviously a very immediate need for research. The implications of this range from mass brain washing to expanded consciousness for all of mankind. Approximately 95% of the households in the United States have at least one television set. Home computers will be similar with another ten.

The design problems for this type of system are minimal. Hardware now exists in a variety of markets and is competitive. The installation is also simple, plugging RF inputs to the antenna leads of any TV system. All bio-monitoring equipment is similarly fashioned to the body, with some form of isolation (optical). They probably will be available within five years through such game systems as Odyssey or Atari.

The next advance will be a brain switch, via neuro-electronic correlates. Already there is known to be another "sensory motor" in-put in the microwave region (0.3-3.0 GHz) (10). A feature called Contingent Negative Variation (CNV) has been isolated as a facet of the EEG through computer fourier analysis and somehow corresponds to will. The two are related somehow but not known.

CNV relates to the cessation of neutral scanning when an object or event is recognized. An individual could learn to trigger the appearance of the CNV even without the presence of any object. It is conceivable that this "switch" could trigger an implanted brain-terminal to some central computer. Data transmission might be via direct brain communication in this microwave region.

The other side of this technological advance is that unscrupulous advertiser who might attempt to sell his products via sub-liminal geometrical/color patterns in his advertisements. Since most of us do not have conscious awareness of this new sense, it obviously is submerged into the unconsciousness. If this is true, and it does in fact appear so, then one country could conceivably broadcast specific microwave patterns toward their neighbor to somehow affect the social or group consciousness.

It appears as if, with all other "breakthroughs", it is a double-edged blade. The future could contain such changes with this type of system, that the "school" concept is changed, and classes are in the home. While only 10% of the cerebral cortex is used now, a major jump in use and access will occur with the advent of this concept in learning.

It is quite conceivable that the future will also allow for new concepts in our relationship to "time" and "space". Uniting psyche with matter has always been associated with immortality:

"To practice the ecology of the soul is to recycle ones consciousness"

**Viduru Telemahandi
The Church of Self Amplification.**

FOOTNOTES:

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ANATOMY OF THE STAR GODDESS (1999): This article, originally written as an adjunct to *The Diamond Body*, is about further investigations into the qabalistic and synergetic properties of the Vector Equilibrium Matrix. For placement in SYNERGETIC QABALA, it has been updated with notions from Post Quantum Physics and its relevance to the the mind/matter interface. Its departure point is Crowley's (and the Egyptian) notion that "*Infinite Space is the Goddess Nuit.*" Here we investigate the archetypal and virtual properties of this Star Goddess, and what that implies in terms of qabalistic emanation, the collective unconscious, the paranormal, and mind-over-matter. Her body is the incorporeal matrix underlying the physical Universe and the human psyche, underlying all phenomena.

When this article was originally written, scalar physics was considered alternative science. Since then its stock has gone up. There has been a mainstream revolution in cosmology, (SciAmer, Jan. 1999), which confirms the importance of "vacuum energy." The standard cosmology of the 1980s, postulating a flat universe dominated by matter is dead. The universe is either open or filled with an energy of unknown origin. Put another way, "nothing" could not possibly be more interesting. There are also psychological implications. Like virtual entities, images or symbols percolate in and out of consciousness below the threshold of consciousness. They appear much like virtual particles blink in and out of "existence." The newest generation of physics, Post-Quantum Physics posits a model for mind-over-matter,

which operates with quantum backflow that is also relevant to our discussion. This article is not for the intellectually timid...good luck.

ANATOMY OF THE STAR GODDESS:

Quantum Cosmology, Virtual States, Energy Science, Chaos Theory, and Scalar Fields

by Iona Miller, c1992

KEY PHRASES: Infinite Space, The Void, Vacuum, Zero Point Energy, Virtual Manifold, V.E.M. as Psychotronic Machine, Virtual State Translator, the Physics of the Plenum, Post Quantum Physics, Synergetic Interaction, Imaginering, Orthorotational Geometry of Dimensions, Chaos and Complexity, Depth Psychology, Mind/Matter Interface, Nothing becomes Something.

ABSTRACT: Nuclear engineer and researcher, Thomas E. Bearden has proposed a new approach to physics with some startling new theories based on Hugh Everett's many-worlds interpretation of quantum mechanics (1973). Bearden extends QM theory, rather than corrupting it.

The main thrust of Bearden's work is toward explaining paranormal phenomena, the collective unconscious, weaponry, and other technological possibilities. His new view of physics (energy science) is grounded in what he calls scalar electromagnetics, from which he proposes deriving "free energy."

This is, in essence, tapping the Vector Equilibrium Matrix for zero point energy. The key to his technological approach is to "*let the EM force fields fight themselves to a 'cancellation,' forming a vector zero.*" Antigravity is just one possibility.

Multiple realities contain all possibilities, but in enfolded or virtual states. This theory alleges that there are clustered worlds, which are three-dimensional to an observer within them, yet virtual to an observer from outside. These hyperspace dimensions are orthogonally rotated (90 degrees) in respect to one another. Selecting a frame, or cube of space, facilitates access.

When we consider the vastness of space, we perceive emptiness due to our relative position in this universe. The Void is actually densely packed with virtual energy which awaits translation, or transduction into our observable 3-dimensional reality. These energies or entities appear as virtual because they are unobservable through ordinary means. Crosstalk across these

channels is the basis for the collective unconscious, paranormal phenomena, and the manifestation of our material world.

Like philosophy, physics is not any absolute description of Truth. Rather, both disciplines invite us to "*Look at it this way.*" This approach is very much in line with the long-standing tradition of speculative Qabala and Hermetic philosophy.

CONTENTS

Quantum Cosmology: The Gross Anatomy of Nuit
Energy Science and Scalar Fields
Light and time
Virtual Reality Check
The Body Electric
EM Fields, Action, Creation, and Time
True Enough--to the Physicist
Thomas Beardon's Scalar Electromagnetics
New Definition of Zero
Primitive Perception
Virtual (Hidden or Occult) Entities
Virtual Hyperspace
Scalar Electromagnetics and the Plenum
Scalar EM View of the Vacuum
Separation of Vacuum and Observable States
Engineering the Vacuum
Mind Is Objective
Biofields and Tulpas: Projection As Reality
Dreams As Unresolved Conflicts
Virtual Chaos
Virtual States and Hyperspaces
It's Alive!

QUANTUM COSMOLOGY, THE GROSS ANATOMY OF NUIT:

This Book explains the Universe. The elements are Nuit--Space--that is, the total of possibilities of every kind--and Hadit, any point which has experience of these possibilities. (This idea is for literary convenience symbolized by the Egyptian Goddess Nuit, a woman bending over like the Arch of the Night Sky. Hadit is symbolized as a Winged Globe at the heart of Nuit.)

Each one of us has thus an universe of his own, but it is the same universe for each one as soon as it includes all possible experience. This implies the extension of consciousness to include all other consciousness.

**--Aleister Crowley,
THE BOOK OF THE LAW**

Thomas Bearden's theories bear directly on our investigation of the nature of Nuit and the vector equilibrium matrix. By commenting on the physical and philosophical qualities of the vacuum, and attempting to describe how nothing becomes something, Bearden has joined a host of philosophers, mystics, and scientists with an interest in the threshold of our observable universe, and what lies beyond.

In *EXCALIBER BRIEFING: EXPLAINING PARANORMAL PHENOMENA* (1988), Bearden succinctly outlines his theory, as well as offering several real-time applications. In order to relate his ideas and those of Everett to our notions of the V.E.M., we shall have to draw heavily on his work.

We ask the reader's patience with the necessary quotes, but we hope they will simplify the complexity of comprehending even the gross nature of the V.E.M. But before we review Bearden's ideas, we will discuss what state-of-the-art quantum cosmology has to say about the nature of reality.

Long ago the Gnostics believed that the true unrevealed nature of the Void was a Plenum, or fullness. Modern quantum mechanics has physically verified this intuitive perception of reality. The vacuum of empty space is not empty. It contains energy (zero point energy) and entities (pure virtual particles). Both the energy field and empty space are in flux, and probably interface with other universes through wormholes (or tunnels).

Sidney Coleman, a theoretical physicist from Harvard, has been investigating the nature of the vacuum and its relationship to the cosmological constant--zero. He, and other physicists can't decide whether the total energy in the vacuum should be positive or negative, but they agree that the energy ought to be huge. Coleman asserts "*the cosmological constant is zeroed out by wormholes; invisible, submicroscopic rips in the fabric of space-time that tunnel out of our universe, linking it to an infinite web of other universes.*"

The rationale of the cosmological constant derives from the uncertainty principle, which applies to variables like energy and time:

What it says in this case is that the precision with which you can measure the energy of any system, such as a piece of empty space, is limited by the duration of the measurement; the shorter the time, the greater the imprecision. And this indeterminacy can never be resolved simply by more accurate measuring instruments; it is inherent in the system itself. Over a short enough time the system can assume just about any energy--and it does. In a world ruled by quantum mechanics, the energy of the system in any fleeting instant can be seen only as a wavelike function.

As a consequence, the vacuum of empty space is not empty; it is pervaded by fluctuating fields of energy that, when large enough, manifest themselves as particles--individual photons, for example, or particle pairs consisting of an ordinary electron or quark and its anti-matter twin, which burst into existence

and then annihilate. The vacuum is thick with these short-lived "virtual" particles. It looks empty only because each particle's visit to existence, according to the uncertainty principle, is so infinitesimally brief as to be undetectable.

But the effects of these virtual particles en masse may be detectable. Virtual particles ought to have one effect in particular: their energy ought to warp space. The deformation would be entirely independent of that wrought by ordinary matter, and so, Einstein notwithstanding, it would constitute a nonzero cosmological constant.

How big would the constant be? That depends on how often virtual particles appear in a given volume of space, and it also depends on the type of particles. Virtual quarks and electrons have much the same effect as their "real" counterparts: they cause space to contract. But virtual photons, or any other force-transmitting particles, have the opposite effect: they cause space to expand. There are a whole bunch of things that contribute to the cosmological constant. Some are plus, some are minus, so we expect some of them to cancel. But not the whole lot...

The cosmological constant is very nearly zero. The mechanism, according to Coleman, is similar to virtual particles in that it arises from quantum fluctuations. But this time the fluctuations aren't those of energy fields [zero point energy]; they are fluctuations of empty space itself [vector equilibrium fluctuations].

Stephen Hawking invented the quantum wormhole in 1988. Just as quantum mechanics says there is a certain probability that particles can appear from nowhere in a vacuum, quantum cosmology says there may be a certain probability that a small chunk of space and time will suddenly pop into existence. That is what a wormhole is--a fluctuation in the space-time field, just as a virtual particle is a fluctuation in an energy field.

The wormhole could connect to any one of an endless number of preexisting parallel universes that are otherwise inaccessible to us. There is no reason to assume our universe is the only one; webs of parallel universes are equally possible. They can be imagined like balloons connected to one another by thin, rubbery necks of space-time--those are the wormholes. The regions inside and outside the balloons and wormholes are outside space-time. It doesn't exist.

One meaningful consequence of wormholes is that they might contribute information to our universe in the form of values for the constants of nature. They might also fix the energy density of the vacuum--the cosmological constant. Somehow wormholes arrange things so that the value of the cosmological constant is zero--so that the huge virtual particle components cancel exactly. According to quantum cosmology, this is by far the most likely outcome.

Zero point energy is the kinetic energy that remains in a substance when its temperature is absolute zero. The vacuum has zero point energy, also. Any potential is just a bunch of trapped dynamic vectors, hence trapped vector (translational) energy. It is translational

energy that is locally trapped and not translating. The potential is thus like an accumulator or capacitor. It can be "charged up" and "discharged."

The vacuum is increasingly being regarded as composed of an incredibly dense structure of virtual electromagnetic energy, even at zero degrees absolute. Superspace consists of pure massless charge flux, pure scalar waves. If compacted this energy density of the vacuum is enormous.

Here, in the vacuum, spacetime is incredibly dense, and matter is etherically thin. Spacetime goes through matter, rather than matter through spacetime. And this energy density of the vacuum does interact with electromagnetic fields and matter to give observable effects, such as the Lamb shift.

In his inflationary model of the hot Big Bang, Alan H. Guth considers matter to consist of scalar-field particles, (SCIENTIFIC AMERICAN, Dec. 1991). "*Such field particles are not the stuff of everyday life, but they do arise naturally in many theories.*"

Indeed, they are believed to be the dominant form of matter under the extremely high energy conditions similar to those in the early universe. According to the inflationary model, they lead to a kind of negative pressure. Gravity effectively becomes a repulsive force, and inflation occurs. At the end of the inflationary era, the decay of the scalar-field matter producing the expansion heated the (initially cold) universe to a very high temperature.

Although the scalar field is largely homogeneous, it still may have small, inhomogeneous parts. According to quantum theory, these inhomogeneous parts cannot be exactly zero but must be subject to small quantum fluctuations. (In fact, all types of matter are subject to such quantum effects, but for most purposes the fluctuations are so small as to be totally insignificant.)

The rapid expansion of the universe during inflation magnified these initially insignificant microscopic fluctuations, transforming them into macroscopic changes in density [ref. chaos theory and the pumping up of micro- to macroscopic changes as one of the characteristics of chaos].

Inflation itself depends on a number of assumptions. For example, it would have occurred only if the scalar field began with a large, approximately constant energy density. This approximately constant energy density is equivalent, at least for a brief time, to Einstein's famous (or infamous) cosmological constant. Therefore, like it or not, the success of inflation rests on certain assumptions about initial conditions [another aspect of chaos theory].

What happened before inflation? How did the universe actually begin?" In the pre-inflation era, the size of the universe tends to zero, and the strength of the gravitational field and the energy density of matter tend to infinity. That is, the universe appears to have emerged from a singularity, a region of infinite curvature and energy density at which the known laws of physics break down.

Near a singularity, space-time becomes highly curved; its volume shrinks to very small dimensions. Under such circumstances, one must appeal to the theory of the very small--that is, to quantum theory. In quantum mechanics, motion is not deterministic, but probabilistic. A quantity called the wave function encodes the probabilistic information about such variables as position, momentum and energy.

For a single-point particle, one can regard the wave function as an oscillating field spread throughout physical space. Because of the uncertainty principle, the kinetic and potential energy of a system cannot both be exactly zero. Instead the system has a ground state in which the energy is as low as it can be. (Recall that in the inflationary universe, galaxies form from "ground-state fluctuations.") Such fluctuations also prevent the orbiting electron from crashing into the nucleus. The electrons have an orbit of minimum energy from which they cannot fall into the nucleus without violating the uncertainty principle.

Though it is still considered an extravagant claim, the fundamental assertion of quantum cosmology is that quantum mechanics applies to the entire universe at all times and to everything in it. In a theory of the universe, of which the observer is a part, there should be no fundamental division between observer and observed. The wave function of the entire universe can't collapse each time an observation is made. In cosmology, there is only one system, which is measured only once.

Hugh Everett III of Princeton (1930-1982) asserted that there exists a universal wave function describing both macroscopic observers and microscopic systems, with no fundamental division between them. A measurement is just an interaction between different parts of the entire universe, and the wave function should predict what one part of the system "sees" when it observes another. So, there is no collapse of the wave function, only a smooth evolution described by the Schrodinger wave equation for the entire system.

But as he modeled the measurement process, Everett made a truly remarkable discovery: the measurement appears to cause the universe to "split" into sufficiently many copies of itself to take into account all possible outcomes of the measurement. This has been discounted by others into possible histories for the universe with assigned probabilities. For practical purposes, it does not matter if we think of all or just one them as actually happening.

Certain regions, such as those close to classical singularities, exist in which no prediction is possible. There the notions of space and time quite simply do not exist. There is just a "quantum fuzz," still describable by known laws of quantum physics but not by classical laws. [It may be subject to the laws of quantum chaos]. Inflation is assumed as one of the quantum initial conditions.

The inescapable task of the quantum cosmologist is to propose laws of initial or boundary conditions for the universe. Stephen Hawking's idea is called the no-boundary proposal, which admits many possible histories. Perhaps, the universe has tunneled from "nothing." The evolution described by inflation and the big bang would have subsequently occurred

after tunneling. This is consistent with the Qabalistic explanation of the emanation of Kether from Ain, Ain Soph, and Ain Soph Aur--the veils of negative existence.

The picture that emerges is of a universe with nonzero size and finite (rather than infinite) energy density appearing from a quantum fuzz. After quantum creation, the wave function assigns probabilities to different evolutionary paths, one of which includes the inflation postulated by Guth.

Although some theorists disagree, both the no-boundary and tunneling proposals seem to predict the conditions necessary for inflation, thereby, eliminating the need for assumptions about the scalar-field matter that drove the rapid expansion. The no-boundary and tunneling proposals eliminate assumptions about the density perturbations. Although inflation explains their origin, the exact form and magnitude depend on certain assumptions about the initial state of the scalar-field matter.

The inflation model assumes the inhomogeneous parts started out in their quantum mechanical ground state--the lowest possible energy state consistent with the uncertainty principle. But Hawking's no-boundary proposal states that everything must be smooth and regular on the bottom cap of the space-time tube. The condition implies that inhomogeneous fluctuations must be zero there. The fluctuations enter real-time as small as they can be--as the quantum mechanical ground-state fluctuations demanded by the inflation model. The tunneling proposal makes the same prediction, for similar reasons.

So, quantum cosmology alleges the universe appeared from a quantum fuzz, tunneling into existence and thereafter evolving classically. Quantum creation scenarios produce gravitational waves of a calculable form and magnitude. Gravitational waves interact very weakly with matter as they propagate through space-time. Therefore, when we observe them in the present universe, their spectrum may still contain the signature of quantum creation. But gravity waves are hard to detect, so quantum cosmology can't be verified conclusively to determine whether the no-boundary or tunneling proposals are the correct ones for the wave function of the universe. But, so far, these are the best guesses, and they do not contradict the Qabalistic notion.

ENERGY SCIENCE AND SCALAR FIELDS

How does Bearden's energy science relate to quantum cosmology, the vacuum, and vector equilibrium? Through scalars and scalar fields, the virtual vacuum plasma ("virtual particle vacuum ether"). A scalar is a vector characterized by magnitude and time. Scalar waves (virtual particle flux wave) in the virtual state massless charge flux (vacuum), do not breach the quantum level to become observable, yet they are real. They are oscillations of the stress energy tensor of the vacuum.

In the vacuum state everything is disintegrated, but highly dynamic. The vacuum is not an emptiness FILLED with massless charge, rather, it IS identically massless charge (disintegrated dynamicism). It is a plenum, not an emptiness. It is also pure, undifferentiated action.

Multiple vectors acting on one point and summing or multiplying to zero (Vector Equilibrium Matrix) are physically still present, even though their vector resultant is a zero vector...Thus physically a zero vector can be a system having a very real, distinct sub-structure of nonzero vector components. These infolded vector components may be highly dynamic (i.e. chaotic). The anenergy of each infolded dynamic vector component is thus "trapped" inside the local vector zero system.

Anenergy is the stress energy of the vacuum. "Fragments" of energy, more subtle than electromagnetic energy, turned against themselves are locked into a vector zero summation. This is modeled as scalar, massless charge flux or virtual particle flux, or "pieces" of the spatiotemporal vacuum spacetime medium.

These observable virtual anenergy particles are rotated more than 90 degrees from the laboratory space. Anenergy particles are the individual scalar wave components of vector electromagnetic waves. Anenergy components may be coupled into energy, which can be compacted into mass.

Scalar fields exist for each point in space (Hadit) which infolds n-dimensional virtual state substructures. Each succeeding higher dimension is a succeeding lower level of a virtual state. THE VACUUM ITSELF IS SUCH A SCALAR FIELD. This massless charge field enfolds vast electrostatic scalar potential.

Standing scalar waves can be coupled at exactly 180 degrees out of phase in a resonant cavity to create zero sums through scalar resonance. There is just such a resonant cavity in the brain, between the pituitary and pineal glands. These waves of potential co-modulate each other and "lock or zip together" as a zero-vector system wave.

This allows for crosstalk or translation between dimensions. Dimensions have certain primary geometrical physical attributes, such as length, used to describe the separational relationships of physical phenomena. By geometrical we mean that the dimension is considered to "exist" in either the presence or absence of the observable physical phenomenon. However, by agreement the dimension of itself is not directly observable. Yet it can be inferred by measurement.

Hyperchannels for crosstalk between dimensions are known as "magic windows". These interdimensional nodal points have a naturally tuned frequency of a good hyperchannel between orthogonal frames where scalar wave anenergies crosstalk readily.

Crosstalk normally means the transfer of energy or signal from one channel to another, by cross modulation or cross coupling between the channels. In this new approach it refers to the virtual energy exchange between orthogonal universes or frames--that is, between different 3- or 4-dimensional slices of an infinite-dimensional universe.

Magic windows are frequency dependent. Some magic windows are 38-40 kHz, 150-160 kHz, 1.1-1.3 MHz, 1.057 (Lamb shift), and in the near ultraviolet frequency. These frequencies represent enhanced channels between subquantal (virtual) and spatial (observable) states. A particularly good magic window exists when the infrared and ultraviolet bands being utilized are phase-locked so that the ultraviolet represents a first harmonic of the infrared.

Also known as the Tesla wave, this standing scalar wave can be seen alternately as a time wave or a gravitational wave. It is a wave of pure potential. It is a longitudinal scalar potential wave in massless charge, in the vacuum charge flux itself, and in pure spacetime. Since there are no spinning charged mass particles, it does not form a vector electromagnetic wave, as conventional theory would predict. It breaks into shadowy, virtual vectors which are not integrated.

Rigorously vector fields cannot exist in a vacuum, but can only exist on an observable mass. A "shadow" vector field can exist in a vacuum. In the absence of observable mass, it exists as small virtual vectors, each existing as a virtual particle in the vacuum. Such a "shadow" vector field may be regarded as two coupled scalar fields, where the coupling is performed by the virtual particle flux of which the vacuum itself consists.

If this same holds true for the collective unconscious, it may be a physical analog for the unintegratable aspects of the archetypes in human personality. Resonating standing scalar waves in the brain may be the physical interface for archetypes. Since the vectors of vector equilibrium represent the paths of least resistance, they may represent preferred pathways in the brain, as suggested by the chronic reappearance of archetypal patterns.

Classical brainwaves are only the residue or "spillage" waves of the brain. The important activity is in the specific patterning of the vector zero summations of the myriads of ion discharges. Every "discharge ion" constitutes a small EM force vector.

The summation of these vectors is largely zeroed; however, the patterns formed by all these tiny components are not random. The intent and will of the human being is expressed in the changes in the patterning of these dynamic substructures. Present EM brain wave theory does not touch the basic "thought patterns," which are scalar in nature.

Consciousness refers, among other things, to the intersecting stream of monocular, one-at-a-time virtual projections into the mind from the quantum changes of photon interactions upon the body sensors [to be explained more fully later].

Memory gives the entity the illusion of moving through time. In the absence of deeper understanding, the individual consciously sees itself as a separated physical object moving and changing in time with respect to other separated objects that it perceives.

The "externality" of certain changes in the physical world is due to the lack of mental control or influence over them. "Internality" of certain other changes is due to the ability to mentally control or influence them.

The ordinary conscious mind is a serial processor. Only one thing at a time is discriminated in its awareness. But the unconscious mind is totally conscious--but multiply so, since it is a parallel processor of many discriminations at once.

The linear mind cannot directly perceive the individual discriminations of the parallel processor, since THESE APPEAR ONLY AS A BLUR OR NOTHINGNESS to it. This is the mechanism of the barrier between the conscious and unconscious minds.

Projections from the unconscious onto the scenes of the conscious mind will thus appear symbolical--that is, having many hidden meanings at once. This is why our dreams, for example, appear to our conscious minds as weird and distorted, but highly symbolic in nature.

The mind is a world composed of separation events (waves, operations, processes) in unseparated being. We may model it as a physical universe, three orthogonal turns away from the ordinary physical universe, and tuned slightly selectively to one physical organism's body processes.

Eastern masters have always told us that all reality is mind-stuff. Now we can model that process. Mind anenergy is considered to be progressively collected, condensed, and kindled into denser substance and objects by rotation toward the ordinary physical world. Thus a piece of inert matter is simply condensed energy, which itself is condensed anenergy, which is condensed mind flux (crosstalk) from all minds [collective unconscious].

We may model the mind physically, or model the physical as mindstuff, eliminating the artificial dichotomy between mind and matter that presently is assumed in orthodox science.

The VEM and Diamond Body are psychotronic generators for amplifying and translating mindstuff. They are devices for producing observable effects by collecting, condensing, amplifying, and/or processing subtle anenergies or scalar waves. Psychotronic devices are virtual state engineering devices that process and utilize scalar EM waves of massless charge flux.

LIGHT AND TIME

A photon is the basic action quantum. It may be considered as an oscillation in and out of time. It may also be considered as a virtual pattern of positron/electron pairs. It is a piece of electromagnetic radiation when it interacts as a particle.

One half of the photon exists in and carries positive time (negative charge), and the other half exists in and carries negative time (positive charge). Thus, one half is "normal" and the other half is "time-reversed" (phase conjugated).

The photon may be considered as one cycle of an electromagnetic wave. The photon is the basic carrier of time. It consists of a piece of energy welded to a piece of time, with no seam in the middle. The passage of "time" thus moves at the speed of light, its carrier. When its magnitude diminishes below the quantum threshold, a photon becomes a virtual photon, whose emission and absorption cause charge on an electron.

Photon interaction is the absorption and emission of photons by particles or objects. The macroscopic world is created by this interaction, which is the basic quantum change interaction.

Scalar waves are emitted and absorbed by the nuclei of atoms, passing right through the electron shells without interaction. When we introduce additional scalar interactions

beyond the ambient background, the nuclei change appreciably, though this level of physical reality may be far from stable.

This is the higher reality, and it is sensed by the scalar electromagnetic functioning of our nervous system. Unfortunately, this system outputs only to the deep unconscious, since it is highly multiocular. Thus our conscious mind, being monocular, does not perceive the most fundamental reality in which we exist.

"Time" is the special dimension in which multiple objects can exist simultaneously in the same interval. Time is multiocular and space is monocular. Our conscious mind is fitted to the monocular photon interaction. Being monocular, our conscious mind cannot be aware of time directly. For that reason we do not "see" time consciously. We do "see" it, however, unconsciously.

The true meaning of being "lost" is to be separated from the consciousness of the All, which is separation of our conscious, gross sensing from our finer, more subtle, and infinitely richer--and unconscious--scalar sensing of ultimate reality. Because the effect of photon emission is "carrying away time," it forms a filter between our senses and fundamental reality.

This time-differentiation of fundamental reality, eliminates our ability to detect those things which occupy time but not normal 3-dimensional space--such as mind, thought, etc. Almost all our thoughts, concepts, words, and ideas are fitted to this partial reality--and this is the universal human problem and delusion. Einstein alleged that our language demands Cartesian coordinates, and thus limits our thinking.

We see a spatial universe of separated spatial objects, while in actuality we exist in an undifferentiated single wholeness. The mindworld and the physical world (mind and matter) have in common the same time dimension. Dynamic movements in each result in small crosstalk being projected into the other world, a crosstalk so small as to be virtual and normally unmeasurable.

The photon interaction invokes a time-differentiating operation, stripping away or suppressing the time dimension, resulting in a spatial reality or objective reality being perceived or observed. In the process it separates mind and body by destroying the only common connection or channel.

The photon interaction is the agent that creates objectivity itself. The photon interaction separates spacetime into space and time exclusively. An object, being something which occupies space, is thus timeless.

Objects do not exist in time, because the union of an object with time constitutes spacetime, which cannot be perceived, detected, or observed. Only changes in (derivations of) spacetime can be perceived, detected, or observed, but not spacetime itself. That with which light has not interacted is not objective.

The concept of mass is not a function of time, but only a function of space. It is thus three-dimensional. The photon is also three-dimensional, but one of its dimensions is the

time dimension. When the photon strikes the mass and is absorbed, one portion is turned into mass by orthorotating one turn.

Its compound nucleus of spacetime is not perceivable. When a photon is re-emitted, it may or may not be of the same frequency and energy as the previously absorbed photon, depending on the absence or presence of any other perturbations. A small bit of spatial mass is orthorotated which turns the bit of mass into a small piece of energy. In the rotation a small piece of time is bitten off and yields a quantum of action, which now constitutes a photon. Photon emission thus strips away the time dimension, leaving a spatial object.

EINSTEIN POINTED OUT THAT THE VELOCITY OF AN OBJECT MAY BE VISUALIZED AS ROTATION OF AN OBJECT IN HIGHER DIMENSIONAL SPACE. VISUALIZED AS SPATIAL ROTATION RATHER THAN ROTATION TOWARD THE TIME AXIS, THE VELOCITY OF LIGHT IN A VACUUM MERELY CONSTITUTES THE ROTATION OF A PIECE OF MASS BY AN ANGLE OF 90 DEGREES TO THE LINE OF MOTION, IN THE LAB SPACE IN WHICH WE VISUALIZE THE PHOTON (THE ROTATED PIECE OF MASS) AS MOVING.

The spacetime compound nucleus has now once again been separated into spatial and time components. Time is moving with the photon. And that is why time moves or flows at c , the speed of light in a vacuum. Time is carried only by the photon and photon interaction with an object produces that object's march through time.

We perceive stability within change because we cannot detect, perceive, or observe the compound nucleus of spacetime in the middle. Thus we experience change as a thing becoming something else, but still being the same thing.

VIRTUAL REALITY CHECK:

VIRTUAL (STATE): that part of physical reality consisting of changes (particles, waves, and other entities) smaller than the least detectable (quantum) change. Disintegrated changes. A thought or thoughtform is also virtual. May be visualized as consisting of real, dynamic "pieces of vacuum" or "pieces of nothing"...

Every ordinary observable particle (photon, neutron, electron, proton, etc.) contains or consists of a dynamically changing cloud of virtual objects. Exchange of virtual objects is thought to generate almost all forces of nature...The mind may be considered a special virtual universe, and thought a virtual object. Virtual states consist of multiply nested levels, each level progressively finer and more subtle. These sublevels also correspond mathematically to higher geometrical dimensions.

--Thomas Bearden,
EXCALIBUR BRIEFING

THE BODY ELECTRIC

Our understanding of the processes which go on below the quantum level adds another nuance to our metaphysical concepts of the "subtle body", the relationship of mind and matter, and the relative nature of reality. Whatever we find out about the nature of this realm, and its relationship to mass, applies to our own bodies and minds as well.

We are one and the same as the structures that underlie the matter and energy of our gross structure. That structure is continuous, interconnected, and non-local in nature. We have, enfolded within our being, an underlying reality even more fundamental than the structure behind the interconnected wave patterns described by quantum mechanics.

This massless counterpoint to our being has its basis in non-being. To conceive of its nature, we must penetrate not only into the Void, but beyond--through the looking glass into a dimension where chaos is the norm. Whatever this world is, we are that! You share the same anatomy as the Star Goddess. The elements of your body were cooked in the crucible of some long-exploded supernova.

This very ephemeral virtual ether translates itself into matter by turning and turning on its gyres, transforming itself from no-thing into something. We perceive its real-time effect as electricity, without really comprehending what that energy is.

"It is well known that all mass is charged; thus everything in one sense is electricity. To examine this concept, let us look again at the electron with its virtual photons being emitted and absorbed, which virtual activity creates the electric field of the electron."

According to Bearden, the electric field constitutes a steady activity of the emission and absorption of virtual photons. The electron spin is more of an implosion or explosion in higher dimensional space. Spin is occurring in at least four spatial dimensions, not just three. It is more of an implosion or explosion into and out of this three-space universe frame. We might visualize the implosive or explosive spin as similar to vector flux.

Two like-charged particles with precisely antiparallel spin run right through each other when they meet, with no interaction at all, electrical or otherwise. This successful experiment at Argonne National Laboratory disproved the old idea of concrete, solid, material reality. Yet, once again, we are that! In the middle of being is non-being.

Before we leave the descriptions of the sub-quantal electrical activity of the body, we can examine some of the implications of bioelectromagnetism. The most prominent researcher in this area is Robert O. Becker.

Becker is famous for his research on applying electrical fields to the body for healing and tissue regeneration. But he has also done experiments relating the application of electromagnetic currents to the brain and results on consciousness. Some of the most interesting are recounted in *THE BODY ELECTRIC*, co-authored with Gary Selden (1985).

We also found we could work backward, using the [DC] currents to produce anesthesia. A strong enough magnetic field oriented at RIGHT ANGLES [orthogonal] to a current magnetically "clamped" it, stopping the flow. By placing frogs and salamanders between the poles of an electromagnet so that the back-to-front current in their heads was perpendicular to the magnetic lines of force, we could anesthetize the animals just as well as we could with chemicals, and EEG recordings of magnetic and chemical anesthesia were identical. We got the same effect by passing a current through the brain from front to back, canceling out the normal current of waking consciousness, as in electrosleep.

Becker's further comments bear on the mind/body interface, and give a physiological mechanism for hypnosis. It tangibly demonstrates "mind over matter." He recounts his physical findings from hypnotized subjects.

In each case, I found that the frontal negative potential of the head became less negative, often reaching ZERO, as the client attained deep trance. The reading changed in the same direction as in anesthesia, only not as far. Then, when the suggestion for pain control was given, the arm potential reversed just as it had in response to procaine. Conversely, when a control subject was asked in normal waking consciousness to concentrate forcefully on one arm, its sensitivity to pain increased, and the hand potential became more negative. We found we could use this difference to determine whether a person was really hypnotized or just cooperating.

Some doubters (including myself, I'm afraid) had believed hypnoanalgesia was merely a state in which the patient still felt the pain but didn't respond to it, but these experiments proved it was a real blockage of pain perception. It seems that the brain can shut off pain by altering the direct-current potentials in the rest of the body "AT WILL." There's every reason to suppose that pain control through biofeedback or yoga likewise works by using an innate circuit for attenuating the pain signal, which releases a shot of the body's own pain-killers. When the signal is appropriately modulated, it releases endorphins (internally produced opiates)...I predict that research on this system will eventually let us learn to control pain, healing, and growth with our minds alone, substantially reducing the need for physicians.

...We know, on the psychological level, that a person's emotions affect the efficiency of healing and the level of pain, and there's every reason to believe that emotions, on the physiological level, have their effect by modulating the current that directly controls pain and healing.

EM FIELDS, ACTION, CREATION, and TIME

Every physical change of a charged particle (from proton to neutron to electron) constitutes a modulation imposed upon its virtual photonic activity creating its electromagnetic field. These modulations collect, become coherent, and breach the threshold of the virtual dimension. It, in turn, amplifies the signal or information, passing

to the frame of the electromagnetic field. The EM field plays an integral role in coupling the virtual state reality to observable state reality.

Action, according to physics, is the fundamental constituent of physical reality. In metaphysics, action is the agent of karma, producing natural consequences. Action is non-observable; only changes in action are observed, and then only partially. The photon is the basic quantum of action, uniting energy and time.

All physical things are composed of rates of changes in action. These action changes are totally internal to the mass itself. Therefore, literally, the physical universe exists inside each and every part of itself, and is a giant hologram.

An ordinary photon has a certain size that is quite fixed, and it is made of the substance "action" which is totally nonperceivable and nonobservable. Only changes in action are perceivable, observable, or detectable, never fundamental action itself.

So physics already prescribes a universe made out of action, and that universe has no length, no time, no energy, no space, no concrete existence. Yet from it can be taken--by differentiation (which is simply separation)--any length, any time, any energy. However, only a single quantum at a time changes or is separated. Quanta do not superpose.

At its most fundamental level, the entire universe is continually being created and then destroyed in sequence. The continual creation of a tiny piece of time and then the destruction of the piece of time makes us experience reality or change as if we were a pointer moving along a time line.

We cannot see time because it is continually being destroyed by the change process, the very process of physical detection or observation itself. This is similar to the annihilation of a photon when it hits the retina and becomes absorbed.

Now, if we invoke another kind of change, a virtual change, such that its size is always smaller than the actual quantum's size, then this kind of change cannot be detected, even theoretically. The concept of a virtual change is one such that the quantity of action that was changed was deliberately made smaller than the size required to throw the switch of detectable or observable change. It is an infinitesimally small perturbation.

Individually, virtual photons cannot breach the threshold of quantum change, and so cannot be observed or detected. But in concert, they do breach the threshold. The totally unobservable, undetectable virtual photons being emitted and absorbed are conceived as creating the electric field at the same time as observable physical change (ordinary quantum change) occurs.

The electric field, of course, can cause or induce change of sufficient magnitude to breach the quantum threshold and result in observable change. The bottom line is this: the virtual state can be collated and collected to sufficient magnitude to breach the quantum threshold and induce ordinary observable physical change. The electromagnetic field already does precisely this!

We can coherently collect the virtual state to produce matter or its anti-matter, which after all are nothing but macroscopic assemblages of quantum changes, and we can thus get free energy, materialization and dematerialization, teleportation, and antigravity by means of special modifications and development of electromagnetic circuits.

Each photon carries a small piece of time. And the entire virtual state reality is hanging onto that small piece of time as a modulation. That is where the probabilities are riding, in terms of the ordinary monocular interpretation of quantum mechanics. All the probabilities and possibilities are concretely real and occupy orthogonal universes. Since they all share the same single time dimension, there is a TIME BRIDGE OR TIME CHANNEL [QM wormholes] connecting the universes.

Each move or change in one of them crosstalks a tiny bit into each of the others. Since it is the photon which carries them, then each photon contains all possibilities and virtual states modulated upon itself. Photon interaction thus involves the communication of these possibilities and virtual states to the object with which the interaction occurs.

The virtual state psychotronic modulations of the mass's electric field are now riding on the virtual photons that generate that field.

Every possibility concretely exists in that manner, in the virtual state, timewise hanging into the time dimension of the detected physical world's four-space frame, but spacewise hanging out of the ordinary three-space physical universe of objects. So indeed all possible realities, even the wildest and the most farfetched exist in the virtual state.

THE TIME CHANNEL IS QUITE LITERALLY THE PARANORMAL CHANNEL THAT CONNECTS THE NORMAL SPATIAL WORLD TO AN INFINITY OF NON-NORMAL SPATIAL WORLDFRAMES. Only by the continual destruction of each piece of created time (by fusing it back together with the piece of energy involved, and forming a quantum which is unperceivable) are we able to experience physical reality at all, uncluttered and relatively free from the vast hordes of infinite realities through which the ship of quantum-change physical reality sails.

Since the electromagnetic field represents a collection of this vast array of realities, then by proper selection (i.e., by coherent tuning) of multiple stages we should be able to select a particular virtual reality channel. And indeed so we can. Any scheme for drastically increasing signal-to-noise ratios should be adaptable to such a collection mechanism for the detection of bioenergy.

TRUE ENOUGH--TO THE PHYSICIST

*"Into the core of Nature"--
O Philistine --
"No earthly mind can enter."
The maxim is fine;
But have the grace
To spare the dissenter,
Me and my kind.*

*We think: in every place
We're at the center.
"Happy the mortal creature
To whom she shows no more
Than the outer rind,"
For sixty years I've heard your sort announce.
It makes me swear, though quietly;
To myself a thousand times I say:
All things she grants, gladly and lavishly;
Nature has neither core
Nor outer rind,
Being all things at once.
It's yourself you should scrutinize to see
Whether you're center or periphery.*

--Johann Wolfgang Von Goethe

Follow me now into a much deeper level than ordinary thought, down into the atomic realm, the subatomic realm, and yes, the sub-quantum realm--deeper than the Void, into the lookingglass universe.

Theoretical physicists are used to visualizing a world which is removed from tangible objects by two levels of abstraction. From tangible atoms we move by one level of abstraction to invisible fields and particles. A second level of abstraction takes us from field and particles to the symmetry-groups by which fields and particles are related.

The introduction of superstring theory has stretched scientific minds even further. Superstring theory takes us beyond symmetry-groups to two further levels of abstractions. The third level of abstraction is the interpretations of symmetry-groups in terms of states in ten-dimensional space-time (sound Qabalistic?). The fourth level is the world of the superstring by whose dynamical behavior the states are defined.

We are inviting you also into those rarified events beyond the observable limits of nature, at the core of the core, as far within as we dare speculate. Scalar phenomena, while not directly visible, can be inferred. The discerning will find that their own nature is truly reflected there, and its name is Mystery. So, come...into the Mystic.

The following is paraphrased, quoted, or synopsised from EXCALIBUR BRIEFING: EXPLAINING PARANORMAL PHENOMENA (1988, Strawberry Hill Press) by Thomas E. Bearden, who is a retired Lt. Colonel (U.S. Army). It has been condensed and juggled to accentuate its relationship to Buckminster Fuller's description of the Vector Equilibrium Matrix, a zero vector system. We hope to use this new approach to quantum physics to further reveal the psychotronic properties of the Diamond Body and the Synergetic Qabala. We also hope to relate it to Theoretical Qabala and consciousness studies.

To simplify this theory for the reader we have eliminated the equations. See the book for the mathematical proofs. This, and other books by Bearden on paranormal phenomena and weird science can be ordered directly from Tesla Book Company, P.O. Box 1649, Greenville, Texas 75401.

THOMAS BEARDEN'S SCALAR ELECTROMAGNETICS

Let us use as a definition of reality: reality is that which can be conceptually and mathematically modeled and fitted to the phenomena existing in one or more minds. Physical reality is that which can be modeled and fitted to the phenomena in one mind. Mental and physical realities comprise "normal" reality. Complex or "paranormal" reality is that which can be conceptually and mathematically modeled and fitted to phenomena which exist in more than one mind, but not in all minds.

From pure nothing--empty vacuum, absence of thing--one can generate everything, the presence of thing. Here is direct proof that ultimately opposites are identical. [There is] identity of opposites on their common boundary.

Thomas E. Bearden, Nuclear Engineer

The conventional interpretation of relativity considers only a single observer at a time (monocular). Change as seen by multiple simultaneous observers (multiocular) leads to an infinite dimensional, multiworld or multiuniverse similar to that postulated by Hugh Everett (1973).

In the many-worlds interpretation of quantum mechanics essentially all possibilities exist and are. Each world splits into multiple possibilities after each and every event. Though consistent with the entire experimental basis of quantum physics today, this is a reality where all possibilities are physically real in their own dimension, though virtual entities to an observer in another dimension.

Physical reality is not absolute. This can be shown experimentally. Two colliding protons pass right through each other in total violation of all physical rules, if their spins are exactly parallel. [In vector equilibrium, waves pass through waves without interference]. Protons are the central building blocks of all matter, the fundamental constituents of everything solid and concrete. Yet, they go right through one another, without any effect whatsoever when their spins are aligned properly, simply cancelling physical reality.

There is no independent existence to mental phenomena; there is a perception operation involved when we think. There is no independent existence to physical phenomena; there is a perception operation involved when we observe physical phenomena. Furthermore, it takes a finite piece of time for the perception process to occur.

At the boundary of exact opposites, all that is necessary to identify opposites is to lose all perceptual distinction between them. And that is accomplished by multiocular perception--perceiving the presence of both at once unseparated, hence the absence of either exclusively present.

NOTHING SIMPLY CONSISTS OF THE PRESENCE OF THE TOTALITY OF ALL OPPOSITES. It is a contemporary form of the alchemical union of the opposites, or the psychological notion of "holding the tension of the opposites." But, separate time intervals are required for finite monocular perceptions.

The laws of logic are simply the laws of the operation of perception--nothing more, nothing less. The ordinary laws of logic apply only away from a boundary. The boundary, threshold, or liminal area invokes the law of paradox.

Identifying opposites simply consists of "packing together" two previously separated perceptions into a single third unseparated perception. Every single perceived thing has a boundary, where it both begins and ends its exclusive presence in perception output. In any perception ordinary logic and paradox are applied. Ordinary logic is explicit and paradox implicit, or conversely ordinary logic is implicit and paradox explicit.

NEW DEFINITION OF ZERO

To a monocular perception process, multiple presence constitutes absence of the exclusive presence of any particular one. Therefore such a multiple presence is monocularly unperceivable, and hence becomes a zero to a monocular detection process. This allows new definitions of zero, and a solution to the problem of nothing.

Consider that a monocular detection process asks the question, "Is there a single exclusive thing present in my input?" If the answer is yes, an output is generated and perception occurs. If the answer is no, no output is generated and perception does not occur. The answer "no" occurs in two fashions: either total absence, or presence of two or more simultaneously. For either of these cases, monocular perception gives no output, and perception does not occur, i.e., the absence of perception occurs.

Now note that the monocular perception cannot tell any difference in the two input conditions. To it, there is no distinction between the two conditions. The lack of any difference at all constitutes identity. Thus to a monocular perception process, condition one is identical to condition two when they are infolded together in condition three. So, **TOTAL ABSENCE AND MULTIPLE, UNSEPARATED PRESENCE ARE IDENTICAL INsofar AS A MONOCULAR DETECTION PROCESS IS CONCERNED.**

Einstein's postulates of special relativity conclude that "*every photon is moving at the same speed relative to every particle*" in the laboratory frame of reference. The laboratory frame is the static reference frame of the observer/measurement. But higher dimensions (unobservable) may be enfolded in hyperspace and orthogonally rotated (90 degrees) to the laboratory frame.

The Cube of Space, Diamond Body, and Vector Equilibrium Matrix are such hyperdimensional frames of reference. They allow us to conceptualize and engineer such realms. A frame of reference is a spatial, organized, measured lattice placed in emptiness (space, spacetime). Normally this refers to a 3-dimensional, spatial frame.

All objects and points in the "universe" or spatial frame are considered to simultaneously coexist at separate, measured points in the frame. It differs from the vacuum in that, rigorously, vacuum has no existing definite lengths (vectors) and no existing definite time intervals (scalars). These appear only after measurements/detection, and are relative to the observer and to the detection process.

A separate reference frame may be assumed to exist for any fixed or moving object, or entered on any point in another frame. When a type of frame is assumed, the entire class of physical interactions that can occur has been restricted to an assumed set or type.

In other words, given the frame, the physics have been assumed. One of the greatest restrictions of an assumed "frame" is to rule out the consideration (existence) of other higher dimensions. In the new theory, higher dimensions are permitted and an orthogonally rotated frame can be equated to a field and vice versa.

Hyperdimension, hyperspace, hyperframe, hyperworld, and hyperfield are all synonymous terms. ANY KIND OF FIELD CAN BE TURNED INTO ANY OTHER KIND OF FIELD, MERELY BY CORRECT AND PRECISE TIME SYNCHRONIZATION.

Mass is determined by the resistance an object poses to an accelerating or disturbing force. Mass is also tied to three-dimensional objects. A photon, moving at the speed of light, can neither be speeded up nor slowed down; hence in one sense it exhibits infinite mass, but it loses a dimension when it intersects the laboratory frame. Due to orthogonality it appears two-dimensional with zero mass.

This is because at the boundary opposites are identified. At the orthogonal boundary of three-space, zero mass and infinite mass become identical, so the photon exhibits both zero mass and infinite mass simultaneously when it crosses the threshold of the mass exhibiting world.

The Diamond Body and VEM are manifolds of enfolded in-form-ation. The relationship between mind and matter is not mutually exclusive. The VEM is a means of engineering the transition from virtual to physical space, from concept to reality.

Mind and matter are either partially or totally one and the same thing. They are of exactly the same nature, but only partially intersecting. Mind is an entire physical world, but it only minutely intersects this physical frame, and then only in a portion of this physical plane.

The single dimension parameter generates the second, third, fourth, fifth, and up to Nth dimensions of the manifold, by repetitive operations on itself.

PRIMITIVE PERCEPTION

The primitive observer or "natural man" is conditioned to perceive objects and relations between objects. This is the basis of logic, mathematics, and physics. Set theory is simply the synthesized and abstracted game of elementary perception of the macroscopic world. This is why mathematics can be used to perceive physical phenomena.

This macroscopic, intuitive perception is the basis of our concept of objectivity, and of our physical concepts of "observed" and "observable." What we see as an object has interacted with photons of light through absorption and emission.

Light itself is only detectable in its interaction with matter. The concepts of object, mass, three-dimensions, and observation are directly correlated to the photon-mass interaction, and ultimately to the photon-electron interaction occurring in the human retina.

The ideas of boundary, surface, and change in primitive perception thus involve two contradictory and simultaneously mixed interactions, absorption and emission. Because they are constantly intermingled, primitive perception cannot separate the two. Thus the primitive concept of a boundary consists of a simultaneous duality. Here the object both begins and ends. Here opposites are identified.

The dimensionality and orthogonality (spatially) of the primitive perception process are also interesting. Photon absorption constitutes spatial integration for the photon: one additional dimension is gained by the two-dimensional light wave turning itself into the three-dimensional mass state.

The photon also adds its piece of time to the absorbing mass, converting the mass particle to mass time or space time--adding the fourth dimension. Photon emission constitutes spatial differentiation, dimensionally speaking. One spatial dimension is lost by a little hunk of three-dimensional mass turning itself into a two-dimensional wave.

Going from outside the object toward the inside (to track with photon absorption), the boundary marks the end of the two-dimensional wave region, so the object (or, more precisely, the interaction region) is spatially two-dimensional on the outside, and spatially three-dimensional on the inside. [So is the Vector Equilibrium Matrix and the Tree of Life]. It also occupies the time dimension on the inside, but not on the outside. [Ditto]. This directly accounts for a difference in the spacetime inside and spacetime outside, and is why mass may be regarded as a curvature or change in spacetime.

Going from inside the object toward the outside, the boundary marks the end of the spatially three-dimensional region and the beginning of the spatially two-dimensional region. So the object is now spatially three-dimensional on the inside, spatially two-dimensional on the outside. The inside now does not occupy the time dimension, while the photon emitted outside does. So on the boundary, one spatial dimension is gained going in, and one spatial dimension is lost going out. Time is gained going in and lost going out, by the mass absorber-emitter.

Gain or loss of a dimension is accomplished only by orthogonal rotation between 90 degree nested spatial frames. The photon interaction may be modeled as orthorotation of an entity spatially in a five-space. Einstein showed that velocity can be regarded simply as the measure of rotation of an entity in a higher dimensional space. Since light is orthogonal to the entire space, the speed of light is the same to every observer in that space.

Velocity also represents a statement of the switching of time into length, and length into time. It is therefore a rotation of the spatial three-dimensional frame.

The photon interaction process is monocular. Each photon must attack matter individually, and live or die in the process. Each photon born from matter is also born independently. Thus the primitive observation process is monocular, since it is totally in one-to-one correspondence with photon interaction that is monocular.

Thus the observed world is monocular, quantized, discreteized. This why quantum mechanics seems so irrational and counterintuitive. It is difficult to comprehend that which cannot be verified by our senses and experience. But, macroscopic (observable) causality may be violated by control of hidden subquantal (virtual state) variables.

Everett's theory of the universal wave function incorporates multiple simultaneous observation, and hence direct insight beyond the limitations of the monocular correspondence to the photon interaction.

Photon interaction must be excluded whenever the so-called quantum effect is exhibited. If photon interaction is invoked, classical reality emerges. Photon interaction creates classical objectivity. Photon interaction is a time-differentiating operator imposed on four-space. Since light carries time, photon emission from an entity strips away the time dimension converting it to a spatial object. The time portion of an entity can interact with any number of time portions of other four-law entities if the time aspects of all of them coincide.

To the laboratory observer, orthorotation constitutes pure dimensional integration and dimensional differentiation, and constitutes or creates an object in the first place as three-dimensional reality. OUTSIDE THIS PRIMITIVE PROCESS ALL EXISTS IN THE OMEGA NOTHINGNESS VOID, WITHOUT FRAME OR FORM. Ultimate reality (specifically, action) is dimensionless in the objective sense: for the objective sense exists only after an operation has been imposed.

A quantum itself is lengthless (and has no exclusive energy, time, or momentum) until differentiation is imposed upon it. Fission and fusion of action quanta involve orthogonal rotation between orthogonal three-spaces sharing the same fourth dimension (time) in common. When a quantum is observed as manifest it exhibits changes in length, time, energy, mass, and momentum. It can be modeled as a vector.

A vector is a mathematical entity which can be characterized by a magnitude and direction. They are formed by a difference in potential between two spatial points. Thus inductance and capacitance are merely (electromagnetic) vector statements of amounts of rotation, one in a positive direction and the other in a negative direction, toward an orthogonal axis in higher dimensional space.

Vectors are characteristic of particle motion, and do not observably exist in the absence of a particle. IN THE VACUUM, ONLY AN UNZIPPED (DISINTEGRATED) VECTOR PATTERN EXISTS, ONLY THE POTENTIAL FOR A FORCE VECTOR EXISTS THERE.

The vector field is the assigning of a magnitude and direction (vector) to each point in space. [Reference the Isotropic Vector Matrix]. The entire set of vectors and their spatial points is called a vector field. In Bearden's approach, such a vector field

cannot observably exist in a vacuum, since only disintegrated things exist there. There each potential vector patterns exists broken into virtual bits, ordered in line to form the bits of the observable vector but not joined.

In the presence of a detecting/integrating mass, such as a spinning charged electron the virtual bits and the spinning charged mass couple into a system that identically comprises the observable vector. In other words, the spin of an observable particle simply integrates the ordered virtual bit pattern, just as an old spinning wheel twists and integrates individual fibers into a stranded thread or rope.

VIRTUAL (HIDDEN OR OCCULT) ENTITIES

All fundamental particles--photons, neutrons, protons, electrons, etc.--exhibit the same behavior. So things, nothings if you will, can be processed in the multiplistic two-states-identified-as-one-so-no-single-exclusive state (paradox, boundary, threshold), as virtual and unobserved entities.

From ordinary, objective lab space nothing is processed, and indeed nothing is there, because these virtual hidden-variable nonthings are unobservable. Yet, this processable, structurable, nonobjective reality exists outside objective, three-law spacetime and is the basis for all psychotronic phenomena.

To our present monocular detection devices and monocular theory, such multiple-state entities are unobserved and hence are zeroes. They are pure vacuum, pure space, pure nothing, pure emptiness. But they are very real indeed, and they do physically exist, but multocularly rather than monocularly.

The virtual state is that part of physical reality consisting of changes (particles, waves, and other entities) smaller than the least detectable (quantum) change. Disintegrated changes. A thought or thoughtform is also virtual. Virtual entities may be visualized as consisting of real, dynamic "pieces of vacuum" or "pieces of nothing"--called quitons by Bearden.

Every ordinary observable particle (photon, neutron, electron, proton, etc.) contains or consists of a dynamically changing cloud of virtual objects. Exchange of virtual objects is thought to generate almost all forces of nature. Conservation of energy need not be conserved in virtual interactions, and generally is not.

In the new approach, the mind may be considered a special virtual universe, and a thought a virtual object. The virtual state consists of multiply nested levels, each level progressively finer and more subtle. THESE SUBLEVELS ALSO CORRESPOND MATHEMATICALLY TO HIGHER GEOMETRICAL DIMENSIONS.

Virtual particles in the vacuum flux arise out of nothing spontaneously (creation) and disappear into nothing spontaneously (annihilation). Since this is random, at any instant any sort of pattern imaginable is "just appearing" and "just disappearing" in the vacuum. Thus a ghost-pattern of everything exists in the vacuum at any point or region, at any time.

THE VACUUM IS THUS A GIANT VIRTUAL-STATE HOLOGRAM. INTEGRATING (KINDLING) ONE OF THESE FORMS WILL RESULT IN IT BECOMING FIRST A NEUTRINIC PATTERN, THEN A PHOTONIC (LIGHT) PATTERN, THEN A MATERIALIZING PATTERN, AND FINALLY A MATERIAL PATTERN. Discharge of the "potential" of this pattern then reverses the process. These two processes--charge-up and discharge--constitute materialization and dematerialization. Anything at all--living or dead--can be materialized or dematerialized.

The vacuum, as scalar field, is also the rigorous identity of a massless charged field, of--for example--the electrostatic scalar potential, 0. Also, the scalar field is considered to be composed of two time fields: one in positive time and one in negative time that is the phase conjugate replica of the first.

Thus the timeless, lengthless vacuum exists both in positive and negative time, and its potentials are scalar potentials. When the vacuum is uncurved, equal amounts and components of positive and negative time exist. When it is curved at a point, the positive and negative time components are unbalanced at that point.

VIRTUAL HYPERSPACE

Zero is a relative term--relative to an observer. An observer who perceives nothing, registers nothing--but subtle reality can be quite different.

An observer sees his own frame, and intersections in that frame, nothing else. He does not necessarily see the entire reality of any object, and if an object is in a frame that does not intersect the observer's frame, the observer cannot detect that object at all.

Photons behave like massless particles. A photon has zero mass because it is a two-dimensional object and only three-dimensional objects have mass. A photon also has an infinite mass because it cannot be accelerated along its direction of travel, i.e. go faster than the speed of light. A photon is a perfectly ordinary three-dimensional particle existing in a normal three-space that is one orthogonal turn away from the laboratory three-space.

Localized mass is merely the result of orthorotational flux in and out of that localized space. This flux does not move through laboratory three-space, but rotates into and out of it, at and for each fundamental particle of mass in real-time three-space. This hyperspatial flux is actually flowing or rotating in hyperspace. This is where the ordinary spin of a fundamental particle comes from.

Hyperspace flux lines are jittered because of modulations made by higher-frequency components. This jitterbugging, as Fuller calls it, relates to paranormal phenomena.

We can look at hyperspace flux from the point of view of matter or mind. Materially it is a continual direct coherent collection of virtual subquanta to reach the quantum threshold, breach it and become observable quantum change. Virtual photons kindle and create electric fields and the charge of an electrically charged particle.

From the point of view of our consciousness, hyperspace flux is a continual direct coherent collection of mind virtual state subquanta to reach the quantum threshold, breach it, and turn into observable quantum change (physical phenomena).

THUS ALL MATTER IS TOTALLY MIND AND ALIVE--INERT MATTER IS JUST NONPREFERENTIALLY ALIVE. The resultant flux vector in an inert mass is ZERO since there exists as much flow out as in, and vice versa. THUS, WE ELIMINATE THE CLASSICAL DICHOTOMY BETWEEN MIND AND MATTER.

Channels of least resistance exist to translate from one dimension to the other. It is easiest to establish them through the paths of least resistance--the magic frequency windows. Magic window induction works like a transducer.

Modulation of the primary flux happens through jitter or dither. In the continual, virtual, subquantum, orthorotational flux (crosstalk), rotating into and out of a fundamental mass particle, only the components that are coherent are additive. Only those that add to the quantum threshold and breach it become observable quantum change.

This is the threshold where it is possible for virtual mind to effect virtual matter and real time. It is the basis of all magic, sympathetic response, synchronicity, invocation, visualization, correspondences. The translation comes through the process of kindling a response in the primary medium of expression (the virtual state entities).

So be careful what you imagine, visualize, or even think of yourself. Because we can physically confirm that thoughts become things! Our self-image is perhaps one of our most important creations. Our early experience of the environment conditions this image greatly. It imprints fundamentals such as whether the world is a safe place to be or not.

Trauma locks up energies in the body, and the self image can become "frozen" and inhibit growth of the personality, especially in its expression of one's Higher Self or H.G.A. This image can be de-structured or liquified, (*solutio*), eliminating the old holographic pattern, and returning all elements to a chaotic state. From this chaos, the new image automatically emerges in regenerated form. This death/rebirth is commonly referred to as healing, and may be the mechanism of the placebo effect.

Self image is locked up in identification with a multi-sensory image of self. It conditions the body and its state of health. The process of detachment from one's body, emotions, thoughts, and even the notion of self is a way of dis-identifying with the old outworn model, and creating a non-localized impression of oneself as contiguous with the universal consciousness.

The "self-simulation," (Tart, 1990), carries consciousness from moment to moment, even though that "self" fluctuates through a variety of states and conditions. These are "internally generated virtual realities," according to "altered states of consciousness" expert, Charles Tart. He postulates a mechanism for self simulation and world simulation by boldly declaring that "*we all live inside a world simulation machine.*" (1).

The magickal body or body of light or Diamond Body can be used for identification purposes for consciousness journeys to realms which supercede physical manifestation. The DB or VEM function simultaneously as vehicles of consciousness and psychotronic energy accumulators. They focus intent and will much like a crystal can focus light. The pro-active approach is "learn--commit--do."

Time is produced by the fission of the quantum of action. All remaining statistical subquanta which have not collected to the threshold level are virtual subquanta of action possessing unfissioned, unseparated time. Each and every piece of time contains dynamic, nested, virtual subquanta. Time in observable changes may thus be said to possess an internal dynamic structure filled with such virtual subquantum mental, neutrino, and photonic entities.

Mind becomes matter, it matters, when virtual-mental entities cohere frequency wise until they breach the quantum threshold and discharge into observable quantum change. It is much like the accumulation of a static charge until sufficient potential is reached and a spark occurs, discharging the accumulation of charge.

The same relationship exists between virtual-mental state and observable state. The only difference is that virtual-mental state accumulates by frequency or time phase. Perhaps you can draw your own conclusions about what this might mean concerning magical timing and tides, as well as regularity in practice.

If you are going to charge your magickal machine, your altar which is the temple of yourself (the temple of self amplification), there are protocols for maximizing the "charge." This is also the basis of the magical egregor and group ritual. The "many minds model" has always contended that the force of concurrent magical visualization and effort is cumulative and exponential.

At the quantum level, a physical change is totally statistical to a monocular observer, but this is not so when many minds are involved. It is why the quantum world is statistical rather than causal. This mind/matter interface is not a causal model--your mind doesn't cause matter to change per se. The virtual entities you fantasize manipulating are mind or consciousness themselves--stuff that is not different from matter or yourself in its deepest essence.

We can regard a fundamental particle as simply a complicated three-space tuning pattern existing in the orthorotational crosstalk flux between orthoframes. Our bodies are composed of nothing more than that. Thus we are "vibrations" just as the ancient Indians, Theosophists, psychedelic movement, and physics reveal.

Thus each fundamental particle is a set of tuning frequencies in the flux. A stable particle is a stable spectrum comprised of standing waves. And again, we are that. And yet the fabric of our being constantly comes and goes. We shed skin cells, and rotate our whole inards every seven years. Our atoms are continually being created, destroyed, or exchanged with the environment.

Unstable particles are unstable sets, comprised of some standing waves, which account for the duration, and some not-quite-standing waves, which account for the excited state

or degree of instability of the object. Particles can be destabilized by such subliminal thoughts as "I am a bad person, and deserve punishment." Core issues like this can lead to thought patterns which de-stabilize systems in the body and lead to a diversity of diseases ranging from those described as psychosomatic to those which pronounce a death-sentence, such as cancer. Every fundamental particle is a tuning. We know this fundamentally when we speak metaphorically of being in and out of "tune" with our real-time life situation. Paradoxically the flux tunes and is the result of its tuning.

SCALAR ELECTROMAGNETICS AND THE PLENUM

Current speculation about the nature of sub-quantum reality bears on the philosophical nature of the vacuum, the Void, and the persistent notion of a fundamental "ether." Our approach is that of the alchemist who would unite psyche and matter.

The quantum cosmology suggested by scalar electromagnetics finds mythic resonance in Aleister Crowley's resurrection of the Egyptian deities, Nuit and Hadit, in *THE BOOK OF THE LAW*. Nuit is infinite space, that which is naught, the continuous One, the Void, infinite potential, the Plenum. Hadit is any point which has experience of these possibilities. Crowley also characterized it as motion. Their interaction represents the relationship of the Whole to the seemingly discrete.

Nature has no absolute laws, and nothing is absolutely prohibited a priori. At the microscopic level, there is no such thing as a "fixed" or "static" anything. Everything is in incessant motion. What we see macroscopically as a "fixed" object is actually composed of very small parts that are always in violent motion.

Macroscopically static "force" actually consists of a myriad of microvectors, each moving and doing work against resistance. The macro static force is composed of micro work. Any vector can be replaced by two scalar fields. The interference of two scalar EM potentials constitutes a vector EM field. Any vector EM wave can be replaced by two scalar EM waves.

Waves of potentials (electrostatic and magnetostatic) exist in vacuum, and the coupling of a spinning charged particle to these potential waves constitutes the force field waves actually detected and measured by our instruments.

SCALAR EM VIEW OF THE VACUUM

The vacuum -- and spacetime -- can now be considered to be made of photon-structured gravitons and supergravitons. In other words, the "graviton" can be regarded as a "piece of the vacuum/spacetime medium."

Gravitation is simply infolded and trapped electromagnetic energy, and electromagnetic energy is simply the outfolded contents of gravitational energy. Gravitational potential is "locked up" electromagnetic field while an EM field is "unlocked gravitational potential." Vectorially speaking and roughly put, gravity is operationally zeroed or "trapped" electromagnetics, and electromagnetics is operationally broken-out or "bled off" gravity.

In the modern quantum mechanical view, the vacuum is not an emptiness, but instead is a plenum or fullness (Puthoff, 1989). Today the vacuum is considered to be filled with incredible virtual particle activity. From nowhere, virtual particles continually arise -- even with fierce energy -- then disappear again into nowhere, so rapidly that they cannot be individually observed. However, these virtual particles are quite real, for they cause all the forces of nature when they interact in the aggregate with observable particles.

Thus the vacuum is viewed as a seething inferno of virtual particle fluxes, and the concept of an ether is again accepted as referring to this "virtual plasma" or "virtual flux" vacuum -- which is a far different ether than the old material ether that was theorized prior to relativity. CONTINUALLY, EVERY TYPE OF PARTICLE IMAGINABLE SPONTANEOUSLY ARISES (CREATION) AND DISAPPEARS (ANNIHILATION) AT EVERY POINT IN THE VACUUM, ACCORDING TO MODERN QUANTUM MECHANICS. The rate of this virtual particle creation and annihilation in the vacuum is essentially unlimited.

Further, any virtual particle created has a flux of even finer particles associated with it, and each of those has a yet finer flux associated, and so on without limit. The vacuum's virtual particle flux is thus comprised of nested levels of ever finer virtual particle fluxes, in the modern view. Each deeper virtual level may be modeled as a higher dimension (hyperdimension), to yield an infinite-dimensional vacuum spacetime (hyperspace) that is identically the infinite nested levels of virtual state.

At the same time, every nucleus in the universe is continually absorbing and emitting scalar EM (electro-gravitational) waves, and these waves of pure potential are waves in the stress and structuring of the vacuum itself. HENCE, AT EVERY POINT IN THE VACUUM, AN INTENSE FLUX OF THESE SCALAR EM WAVES, WITH CONCOMITANT INTERFERENCES, EXISTS AND CAUSALLY DRIVES (CONSTITUTES) ALL THE ENORMOUS QUIVERING OF THE VACUUM SPACETIME MEDIUM ITSELF.

To the observer, from a purely statistical viewpoint, in this violent vacuum flux any and every finite patterning of particles is also continually being momentarily created and destroyed -- and at every level and in every hyperdimension. THUS, IN THE VACUUM THERE CONTINUALLY EXISTS -- AT ANY AND EVERY POINT, AND IN ANY AND EVERY REGION -- THE GHOSTLY IMAGE OF ANYTHING AND EVERYTHING, WHETHER IN THE PAST, PRESENT, OR FUTURE; AND WHETHER POTENTIAL, PROBABILISTIC, OR ACTUAL.

Rigorously, the universal vacuum may be taken to be a sort of giant hologram, for the whole is in each part, albeit in ghost-like manner. Everything that is, or was, or shall be; and everything that could be but isn't, wasn't, or shan't be: already exist at once, anywhere and everywhere, in this ghostly, holographic, virtual state. This image of reality is directly implied by quantum mechanics. It is not metaphysics.

There has been a problem of missing chaos in QM theory. Scalar waves seem to be the missing ingredient. The hidden order in the vacuum fluctuations shows them as chaotic instead of random, though still statistical. Chaos theory describes nonlinear

dynamic systems, far-from-equilibrium. Chaos displays certain qualities, all of which apply to scalar wave theory: nonlinear, dynamic, deterministic, far-from-equilibrium, disintegrated, negentropic systems of potential energy.

WE CAN FURTHER EXAMINE THE FLUX OF ONE TYPE OF VIRTUAL PARTICLE THROUGH A POINT (Hadit) IN THE VACUUM (Nuit). Virtual particle flux creates a charge at that point. Various kinds of fluxes constitute various kinds of charge, and comprise various kinds of potentials. One type of charge may always be decomposed (disintegrated) into other kinds of charge, as can potentials.

The magnitude of the electrostatic scalar potential at a point in vacuum represents the magnitude of the flux of virtual photons through the point, and hence the electrical charge at the point. The vacuum is filled with (and consists of) many types of "potentials." The overall vacuum potential remains the same from point to point, though individual potentials may vary.

We can view the vacuum/ether/spacetime as a special sort of gas, where the "gas" is actually a mixture of many, many gases. This peculiar gas exists in five or more dimensions and is composed of very strange, fleeting particles which spontaneously are created and destroyed, each arising out of nowhere and returning to nowhere almost immediately.

There is only miniscule (negligible) time overlap (integration) of the existence of these virtual particles in the main. Mostly each virtual particle -- along with its associated energy, movement, momentum, charge, and increment of time -- exists almost entirely as an individual. Thus the energies, movements, momenta, charges, and time increments of the individual virtual particles do not integrate or sum to any appreciable degree.

These are densities of disintegrated energy, momentum, and time flow. In scalar EM, the disintegrated energy of vacuum is termed ANENERGY. Virtual energy is disintegrated, observable energy is integrated. The integrating agent is usually the spin of an observable particle of mass. The vacuum contains enormous anenergy, but essentially no energy. The "energy density of vacuum," "stress energy density," and "vacuum energy," are misnomers. The Russians describe it as "the information content of the field," but not in the sense of normal communications theory.

Maybe we should call it the "unformation content." The realm of the vacuum is pregeometric. It has been described as vector zero summation, and described extensively by R. Buckminster Fuller in SYNERGETICS 1 and 2. But vector descriptions are wholly inadequate to describe something that is more fundamental than vectors. Fuller spoke of the VECTOR EQUILIBRIUM MATRIX because that was the most sophisticated language available then. He noted the weird mathematical anomaly at the center of the figure where normal space/time breaks down.

But there are shortcomings in vector analysis. The concept of vector has both direction and magnitude, but a scalar has only magnitude, since it does not exist in the 3-space of Cartesian coordinates. Vector space is abstractly defined as a space which can contain objects called "vectors." Fuller called this system the ISOTROPIC VECTOR MATRIX,

an omnidirectional grid of tetrahedra filling all space. If scalars have any relationship to vectors, it is that they are perhaps the essence of disintegrated vectors -- chaos.

"Zero vector" is an entity defined in vector analysis by a set of operations. It is simply "the absence of any vector of finite magnitude." By implication, in abstract vector theory, all zero-vectors are defined as identical. But this doesn't include the influence of the real-though-intangible stress gradient in the vacuum. In the abstract mathematical model, vector space has no such thing as stress, and a zero-vector has no structure.

That is why Vector Equilibrium is a "system" not a structure. Its anomalous center is a chaotic, disassembled system. The presence of summing vector component forces creates a stress and macroscopic structure in the physical medium in and on which the forces are acting. Even in a vacuum, the stress of the medium and its structure must be preserved and accounted for as charge and energy conversion between one kind of charge/potential and another.

SEPARATION OF VACUUM AND OBSERVABLE STATES

Because the energy density of vacuum is unintegrated, an integrated physical body -- including one's own personal body -- can exist "in" the vacuum medium of incredible "energy" density, yet observably exist in a medium of zero energy density. The unintegrated vacuum ether has enormous spatial density of virtual energy, but essentially has zero spatial density of observable energy.

In the hyperdimensional interpretation of the levels of virtual state, the vacuum spatially does not exist in the normal 3-space of observable matter. The vacuum occupies the 4th dimension (time) and all spatial dimensions (hyperdimensions) greater than the third -- it occupies all levels of virtual state, but not observable state.

Exchanges occur between normal 3-space and the hyperspatial vacuum, through the common connecting dimension, time. Exchanges of virtual particles are integrated by the spinning observable particle into the first quantally excited state -- "collapse of the wave function," the production of unitary quantum change, and the discretizing of observable change.

Time is the only "dimension" where everything (Nuit) can be considered to occupy the same "point" (Hadit) or interval, but it is discretized and chopped into pieces, quite different in nature from the familiar three spatial dimensions of the observable universe.

The dimensional separation (spatially) of the seething vacuum "energy" (anenergy) and the 3-space of normal matter allows a physical body to interact with the vacuum (chaos) at or near equilibrium at the microscopic level, but maintain its macroscopic form and stability. Vacuum/spacetime consists entirely of potentials, nothing else, and these are hyperspatial a priori. The vacuum does not contain force fields per se, nor any other non-potential entity. No vector force exists in vacuum. Force is an effect not a cause.

A differentiating operator must be applied to (coupled to) a potential in order to produce a force field. The most usual is an observable spinning charged particle which couples to

the stream of virtual photons. Its spin integrates the unobservable, disintegrated anenergy of the gradient flux into integrated, observable energy of the particle. This translates into the observable electric field which is only a potential in vacuum.

If potential exists as an unintegrated virtual particle flux (VPF), it can be "zipped" and "unzipped" as force. The electrostatic scalar potential is composed of a myriad of little individual virtual-particle "electric force field" vectors, the smear of the virtual particle moving over time. When these little virtual vectors are essentially separate and unintegrated, the electric field is unzipped in vacuum, the E-field vectors are unintegrated. A potential is always an unzipped vector field of unintegrated virtual vectors.

The spin of an observable charged particle zips or integrates an energy. The spin of the observable particle acts as the "zipper." Vacuum is unzipped; observable mass is zipped. Any zipped entity exists observably in 3-space; any unzipped entity exists in hyperspace, and is unobservable and virtual to the 3-space observer.

This interpretation is still consistent with the quantum mechanical view, where ultimately all observable forces are considered to be generated by absorption and emission of virtual particles by/from an observable particle (mass). So force becomes an effect, not a cause. The primary causative agents are potentials, not force fields, as is now firmly established in QM.

Zero-summed EM force vector systems stress the vacuum. A patterned system of opposite forces forms a stress in the vacuum medium. It is the alchemical "holding the tension of the opposites." This stress is oscillation. This oscillation which we call a scalar electromagnetic wave is a GRAVITATIONAL WAVE, since the local curvature of spacetime is being oscillated.

This internal stress in the medium has several characteristics which identify it as chaotic in essential nature.

- 1) it has a DETERMINISTIC pattern or substructure;**
- 2) it patterns or "polarizes" the vacuum;**
- 3) it constitutes local curvature of spacetime**
- 4) it deterministically engineers the virtual state and local spacetime;**
- 5) it affects the Schroedinger wave and the probabilities of the states propagated forward, leading to the possibility of engineering the emergence of quantum change;**
- 6) the scalar wave can accomplish direct and localized change of the rate of flow of time (even to its reversal) and variation of mass and inertia without translation of matter;**
- 7) since excess negative time flow may be locally produced, NEGENTROPY may be locally produced.**

When the vectorially zeroing components are dynamic, the scalar resultant is dynamic. The dynamic scalar term is the scalar EM wave.

ENGINEERING THE VACUUM

A "vectorially zeroed" EM system (Vector Equilibrium Matrix) stresses and deterministically structures local spacetime. It changes the energy density of the local vacuum, and curves local spacetime. Spacetime curvature must be of such direction that a local energy "source" exists. This curvature affects the local flow of time. Negentropy is a direct result of a local curvature of spacetime.

The "locally trapped energy" constitutes a potential. This vectorially zeroed EM system, which has trapped its dynamic energy inside a local area, creates and constitutes an artificial potential in the local vacuum. This potential means dynamically structuring the vacuum, the virtual state through hidden variable theory.

With this technology we can directly engineer quantum change, skew or change the probabilities propagated by the Schroedinger wave, and engineer the atomic nucleus directly with miniscule power. One simply oscillates each component of the zeroing structure in common phase, always maintaining the overall zero EM vector resultant as a scalar wave or gravitational wave.

Scalar EM theory makes it possible to model the mind and its relationship to physical reality. It is the mechanism allowing mind to affect matter, for example in healing. Mind consists of EM fields. Passage of an electromagnetic wave through the vacuum leaves an invisible trace. The vacuum "imprints" everything that happens in it. This imprint is electrogravitational; i.e. the imprinting process structures the substructure of vacuum spacetime (the artificial potential of vacuum).

The vacuum/ether/spacetime is composed of gravitons. This means that the mind/memory/personality are centered in dynamic photon structures inside structured gravitons, which in turn comprise artificial potentials that are centered in the atomic nuclei of the matter in the body.

In the late 1960s, Lisitsyn reported that the Soviets had broken the "genetic code" of the human brain. He stated the code had 44 digits or less, and the brain employed 22 frequency bands across nearly the whole EM spectrum (note the 22 Paths of the Tree of Life, 22 Tarot Trumps, 22 primary archetypal modes of information transfer and feedback).

However, only 11 of the frequency bands were independent ("*11 is the key to all the rituals.*"). This work implies that, if 11 or more correct frequency channels can be "phase locked" into the human brain, then it should be possible to drastically influence the thoughts, vision, physical functioning, emotions, and conscious state of the individual, even from a great distance.

The human brain and nervous system use highly complex substructuring of gravitons and supergravitons, rather than photons to perform mind functions. Thought and personality are directly explainable in terms of scalar EM.

Chemistry is based totally on charge and charge distribution. If you control charge and charge distribution in the body, you can control all the biochemistry of the body, with miniscule voltages and currents.

Engineering the vacuum may lead to true transmutation of the elements. If two weak monochromatic EM waves are run together 180 degrees out of phase, and run through a nonlinear medium so that they modulate each other and lock together, they make a strange "scalar EM wave" that is an electrogravitational wave of pure potential, and one that you are controlling.

Such a wave goes down through the electron shells of the atoms, and is absorbed in the nucleus. If you choose the right mix of waves in the scalar wave, and just keep irradiating the nuclei with that "pattern," the nuclei will gradually rearrange themselves. For example, they will be transmuted into another element, given the proper signal mix. That is how biological systems transmute elements using millivolts and microwatts of power (Kervan effect).

The scalar EM wave passes through the electron shells of the atom essentially without interaction, entering the nucleus. There it is dephased and absorbed, exciting the nucleus in a particular, structured manner. The nuclear potential is increased by assuming the imposed deterministic substructure.

The nucleus will slowly charge up with the impressed pattern, steadily "kindling" (linearly integrating) a common virtual pattern until the observable threshold is breached and observable change occurs in the nucleus. Depending on the structure imposed on the scalar wave and in turn upon the charging nuclear potential, various actions--like transmutation can be created directly in the nucleus itself.

MIND IS OBJECTIVE

A point (Hadit) can be considered to be, and modeled as, a line in a frame one orthogonal turn away, and simultaneously as a plane two orthogonal turns away, and simultaneously as a solid (in fact, an entire three-dimensional physical world) three orthogonal rotations away. THE LATTER MAY ALSO BE CONSIDERED TO BE, AND MODELED AS, A MIND, OR EVEN AS AN IN-FOLDED SET OF MINDS. The concept does not stop at three dimensions, but proceeds into higher realms indefinitely. However, three dimensions plus an orthogonal time dimension are sufficient for our purposes.

TIME IS MIND. In time differentiating, mass loses the time dimension. Therefore we cannot see time with a mass perceiver, but we can see spatial extension (Cartesian coordinates, Lorentz frame, Cube of Space). But time is the only so-called objective dimension occupied or shared by mind. Therefore we also cannot normally perceive the mind because the dimension time is lost in the perception process.

Time does not exist except with respect to between one spatial extension perception and another, if the only output signal is the 3-space of natural perception. **PHYSICAL TIME IS TOTALLY RELATIVE, TOTALLY MENTAL, AND EXISTS ONLY IN**

MEMORY. Mind is thus present in four-dimensional physical phenomena and is discretized along with time discreteness in the Heisenberg uncertainty relation.

Mind creates time by establishing and comparing 3-space realities. The only place the former perception of 3-space can rigorously be found is in memory. An event, once occurred, is in the past and is forever gone to the observer. Only in his memory can it be said to exist. But then so is the observation also of the most recent event. Thus rigorously, OBSERVED PHENOMENA MAY BE SAID TO EXIST ONLY IN MEMORY, and there is only a past, never a present. THUS A FULL FOUR-DIMENSIONAL MIND IS INSEPARABLE FROM PERCEIVED PHYSICAL PHENOMENA, AND MIND IS QUANTIZED ALONG WITH QUANTUM CHANGE IN THE PHYSICAL WORLD.

On the boundary interface (such as skin), one type of field may be turned into another. The psychotronic field (biofield) may be turned into an electromagnetic field and vice versa. The boundary interface serves as a transfer function mechanism for translating one kind of effect into another. Both ends of the transfer functions are excitonically united in and on the interface. For example coherence of cyclic rhythms like breath and heartbeat during psychokinesis.

Man, earth, and cosmos are psychotronically and coherently linked. The boundary of an object is a transducer coupling internal and external dynamic changes in one-to-one correspondence. The transducer effect applies to both living and nonliving systems. Through tuning and resonance, internal patterns can be incepted externally, and external patterns can be incepted internally. (For more on resonance effects and consciousness, see *STALKING THE WILD PENDULUM*, Itzhak Bentov, E.P. Dutton, New York, 1977).

Local curvature of spacetime means a thing in one frame can be something quite different in another frame, in respect to the observer's static frame. What a thing is, is totally relative to the perceiver and his perceiving frame. It can even be nothing in a great many frames. THIS IS HOW NOTHING (NUI) CAN CONTAIN EVERYTHING (HADIT). So we really can turn nothing into something if we are clever. We can tap zero-point energy, psychotronically (mentally) and physically.

We have a scheme of multiple worlds and multiple realities from which we may construct living systems, thoughts, tulpas, etc. And we may also turn one type of field into another, simply by virtual state collection or separation, as the case may be. Some frames are mental or virtual, yet they are just as real as 3-space entities. In this system mind is modeled in terms of physics and physical reality is modeled in terms of mind. The only difference between any two entities in the various worlds is a matter of orthogonal rotation.

EVERYTHING IS A THOUGHT IN AT LEAST ONE FRAME. EACH ENTITY IS A PHOTON IN AT LEAST ONE FRAME (LET THERE BE LIGHT!). By orthogonal (90 degree) rotation, a thing can change its face with respect to an observer, appearing to change into a totally different sort of thing with respect to a fixed object in one frame. Reality is quite plastic and absolutely unlimited.

Materialization of an object, by three receding orthogonal rotations, exists. In such a case the dematerialized object appears the same as a thought object or virtual object. A perfectly valid mechanism thus exists for tulpoids, materialized thought forms (U.F.O., Bigfoot, etc.). All that is needed is a sufficient virtual state collection mechanism (such as Vector Equilibrium Matrix). An object may be kindled from a remote frame to one that is less remote. Two successive applications of kindling turns thought into electromagnetic field. Three kindlings turns a thought object into a materialized object, a tulpoid (a Tibetan Buddhist term).

"Biofields and Tulpoids"

Such a materialized thought-object may be of an inert object or of a living, breathing, biological being. The model we are working in has eliminated any superficial difference between living and nonliving because it is a four-law model. A materialized living being will be just as real and physical and functional as any other person on this earth. Ultimately, that is all that we ourselves are -- tulpoids. NOTHING EXISTS BUT THE THOUGHT OF THE INFINITE CREATOR, AND WE ARE SIMPLY PART OF THAT THOUGHT.

The coherence in multiple stages necessary to accomplish kindling is often referred to as tuning in this book. Tuning sufficient to enable two orthogonal rotations results in thought turning into electromagnetic field or light. Such a kindled field may be additive or subtractive to existing electromagnetic fields.

Thus kindling can cancel an electromagnetic field that already exists, or it can create one where none previously existed, or it can shape, modulate, or change one which already exists. Kindling can also wipe out the charge on a charged particle, or it can build up a charge on an object which previously had no electric charge.

Any changing entity in any frame crosstalks a tiny amount into any other frame, but it may be so small as to be virtual, hence unobservable. Coherent virtual crosstalk, integrates and can breach the threshold between virtual and observable state.

Another point to notice is that most fundamental particles in a frame rarely move with constant velocity. Instead, they normally accelerate and decelerate continually. Thus the actual velocity vector of one of these entities is continually changing, usually quite erratically (chaotic?). But for microscopic particles in regular atomic or crystalline formations, the change pattern is quite regular. (Ref. the DIAMOND BODY).

The constant changes on the velocity induce a jitter component on its crosstalk into other bioframes (see Fuller on "jitterbug" transforms of V.E.M. and octahedron). So the crosstalk into a frame is jittery. Thus a fundamental particle is jittery or wavelike. The fine structure constant of an electron encompasses this hyperspatial jitter or wavelike state of the electron.

The fine structure constant is about 1/137. Thus an electron actually spends about 1/137 of the time in hyperspace. Because of jitter, an object is partially in every hyperframe a minute but finite part of the time. So are all minds and mental objects, and so are all virtual objects.

The identity coefficient shows how much the fundamental particle pervades another frame. For an electron to orbit in an atom (or for any other electron, for that matter) there is a small but finite probability that the electron may be at any given position in the universe when its detection occurs. In other words, there is a finite probability of collecting an electron at any point (Hadit) in the universe (Nuit), and the collection may be made from multiple points simultaneously. Space-point, mind, and thought are virtually synonymous.

BIOFIELDS AND TULPAS: PROJECTION AS REALITY

By proper coherent tuning through time synchronization, an object from a maverick world of fantastic possibilities can be orthorotated into our own frame and objectified. **THIS IS WHAT TIBETAN MONKS CALL A TULPA, AN OBJECTIVE MATERIALIZATION OF A THOUGHT-FORM.** The tulpa will hardly ever be closed entirely in phase, however, and so it will almost always be unstable. UFO's, angels, and imps go away.

But the materialization of one of these can be entirely objective and perfectly objective traces can be left, such as photographs, broken limbs, scorched asphalt, indentations, and depressions in grassy fields. Any thought object can be so orthorotated and objectified. Beings, religious figures, angels, fairies, imps, UFO's, and monsters can all appear.

At death, the now disembodied mind finds itself in its own deep, unconscious world constructs. Reincarnation is simply the resonant coupling which automatically establishes itself in the flux. The disembodied, confused mind will simply be coupled again to a new physical body pattern. This happens at the instant of conception, for the genetic pattern--the complete tuning pattern--is present at that instant. The coupling is quite tenuous at first, and increases in degree as the embryo develops.

So, the cycle of rebirth can be broken completely--simply by dying with a totally detached mental framework. The cessation of all tuning attachment results in structureless, hence all-structured being, part of universal Godness. **THE MAJOR POINT IS THAT ALL THIS CAN BE MODELED PHYSICALLY. THERE IS ONLY LIFE; ABSENCE FROM ONE PLACE STILL LEAVES PRESENCE IN ANOTHER.** Absence from any and every one place exclusively leaves presence at all places, each nonexclusively.

CONSCIOUSNESS -- THE THREAD OF THE RELATION BETWEEN CONSECUTIVE CHANGES IN THE TWO RESPECTIVE FRAMES -- AND TIME ARE IDENTICAL. Time is a duration of consciousness. Thus time and mind are identical. So are time and universal mind.

Consciousness is simply the functioning of coherent crosstalk between a mind frame and a physical body. Each biosystem's consciousness has all other consciousness interwoven with it. The entire universe of universes is totally in communication with each part of itself, continually. Incepting a change from pure causality changes the past. The past is causally inferred or projected backward from the new vectorial direction. Inception of course also changes the future slightly.

Hidden variable theory (chaos) which causes a radioactive nucleus to decay, is also a mechanism which can directly amplify the virtual-mental state into observable state. It is the fundamental mechanism that causes kindling and thus orthorotation. It can be used to materialize tulpas, accomplish psychokinesis, clairvoyance, preconition, etc. The effect is based on the concept that a human being must accomplish a minute inception onto his physical system. Specifically, he must incept the movement of three or four electrons in the brain. This input signal into his physical system amplifies the movement of several electrons into powerful movements of the entire body.

Intelligence may be viewed as the ability to adapt behavior, and increased intelligence represents a decrease in the portion of behavioral control that is genetically programmed or "hard-wired."

The common crosstalk in all minds constitutes the collective unconscious. Since the common crosstalk is in a sense a mind, and since it is connected to a "body" of many cells, i.e. of four billion humans or so, then this collective unconscious is a living, breathing entity. Most of what we term physical reality is prescribed by the collective human unconscious. And if the collective human unconscious is changed in its conception of reality, then four billion stages start kindling with the hyperchannel effect, and immediately the new conception is physical reality.

BORROWING FROM JUNGIAN PSYCHOLOGY, LET US CALL EACH FORM THAT IS IN EACH HUMAN MIND AN ARCHETYPE. Let us also realize that there are shallower levels of unconsciousness between the total collective unconscious and an individual mind. An archetype that is kindled from the collective unconscious is kindled through such a mechanism of unconscious levels of tuning, and the reality format that is kindled is determined by the type of pressure and the content, biases, or tuning of all the levels between it and the conscious minds of the individuals who observe the phenomena.

All tulpoidal manifestations are kindled through this mechanism. All of them are shaped by the multilevel unconscious tuning. **ALL OF THEM ARE CAUSED BY AN UNRESOLVED CONFLICT IN THE DEEPER UNCONSCIOUS LAYERS.** Though short-lived because of unstable tuning, any tulpoidal materialization may be physically real during its stable period. This includes angels, imps, Virgin Marys, UFO's, sasquatches, Loch Ness monsters, lake monsters, sea monsters, mystery lights, fairies, elves, devas, devils, ogres, men in black, goblins, monster birds, and cattle mutilations.

An infinite number of reality channels exists. The total instrumental characteristics, genetic, psychological, and physiological, of the observers who tune in the channel determines the noise content and actual channel selected. A reality is simply an orthogonal frame or world. All possible realities exist. A channel is a set of tuned and

timed orthorotations communicating back and forth between two orthogonal frames or worlds. Tuning is a complex of mind and matter, and of many unconscious levels.

By time coherence in the virtual state, a virtual entity can be amplified into observable state. From sheer nothing (Nuit) we can produce something (Hadit). And since every possible something exists in nothing and is available for cohering, we can get anything at all by this process, at least hypothetically.

DREAMS AS UNRESOLVED CONFLICTS

Everything is essentially mind. Mind forms layer after layer of overlapping zones of shallower and shallower unconsciousness (multiple simultaneous consciousness), all the way from the universal allness (Nuit) to the personal unconscious (Ra Hoor Khuit). It culminates in each conscious mind.

JUST AS THE DREAMS OF AN INDIVIDUAL SHOW HIS UNRESOLVED CONFLICTS, SO THE MATERIALIZED TULPOIDS OF THE COLLECTIVE HUMAN UNCONSCIOUS SHOW ITS UNRESOLVED CONFLICTS. At the other end of the spectrum, a human culture seeks and "obtains" a godform or god-image consistent with its own level of understanding and belief. The resulting tulpoidal activity conditioned into the collective unconscious and the cultural unconscious, and tuned in from them, will be consistent with the cultural desires and expectations.

So in a sense we are the creators of our own reality and our own tulpoidal expressions of higher reality. But in addition to tulpoids, the present character of spacetime and dimensionality, and the very laws of the physical universe, are largely proscribed by the collective human unconscious.

VIRTUAL CHAOS

VECTOR EQUILIBRIUM AS ZERO MODEL; ZEROPHASE: Being the zerophase of energy the vector equilibrium is inherently invisible and non-empirically-discoverable, which accounts for its having been for so long unrecognized as the spontaneous equilibrious model. As specialists, scientists seek only the somethings. The vector equilibrium is the only model of nonbeing zero-inflection at the nomoment of omniintertransformabilities, where anything can happen and must happen single-atomically within and multiatomically without. Speciali-zing science, seeking only somethings, inherently overlooked the nonthing vector equilibrium. Vector equilibria in isotropic vector matrix produce the discontinuity of particles, while the vector-weaving around the VE nucleus produce the continuity of wave phenomena.

The vector equilibrium is the most abstract of all the always-and-only abstract scientific generalizations, for it is the heart of all interrelationships existing between -- and not in or of -- any of all the empirically apprehended intertransforms of the every-and-everywhere intertransforming Scenario Universe. The vector equilibrium is the zerophase--ergo, inexpressible--interrelationship of all Universe events.

The word vacuum relates specifically to gaseous phenomena. Nature's abhorrence of a vacuum induces physical relationships only in respect to the gaseous states. The vector equilibrium is the nothingness phase of all states of physical Universe: it is the generalization of nothingness, within which generalization the absolute vacuum is a special case event in the gaseous state. The vector equilibrium is such a physically abhorred nonstate as to be the eternal self-starter--ergo, the eternal re-self-starter, ever regenerating the off-zero perturbations, oscillations, and all the wave propagation of all humanly experiencable physical and metaphysical phenomena.

--R. Buckminster Fuller, *SYNERGETICS 2*

VIRTUAL STATES AND HYPERSPACES

In physics today there are two separate kinds of reality: observable changes, which can be detected by instruments; and virtual changes, which cannot be detected by instruments, even in theory. Changes smaller than the quantum level are said to be "virtual" and undetectable, and changes larger than this are said to be observable and detectable. Virtual changes are not bound by the conservation of mass law. And virtual photons can have nonzero mass.

Rotation just past the critical angle corresponds to a Lorentz-Fitzgerald contraction into the virtual state below the quantum threshold of the detector's observable universe. But there is a jump effect which happens during the orthorotation of light, or acceleration to the speed of light. Mass turns into photons during the final part of orthorotation which is in the virtual state. This is the missing link between relativity and quantum mechanics.

Continued rotation into hyperspace passes through successively finer, nested virtual sublevels or subthresholds of lab space. (of the Lorentz-Fitzgerald contraction). The successive breaching of deeper thresholds is due to continued Lorentz-Fitzgerald contraction. Higher hyperspatial frames constitute nested sublevels in the virtual state with respect to the laboratory observer.

Thus a direct connection exists between virtual levels and hyperspace frames. **HYPERSPACES AND VIRTUAL SUBLEVELS ARE THE SAME THING.** Every "virtual" object in lab space is an "observable" object in some hyperspace. Hyperspatial engineering and virtual state engineering are one and the same thing, and this is what **PSYCHOTRONICS** and **SYNERGETICS** are all about.

For physical, observable systems, we can model six vectors for every point (Hadit). This is the natural geometry of nuclear structural systems. The most economic system is 12 around 1, closest packed spheres--the intertriangulated geometry of the atomic nucleus. The vector equilibrium is the prime, nucleated structural system of Universe.

Fuller says, "*The behavioral inter patterning frame of reference of the six degrees of freedom in respect to omnidirectionality is of course the vector equilibrium, which embraces the three-dimensionality of the cube and the six-dimensionality of the vector*

equilibrium. Experience is inherently omnidirectional; ergo, there is always a minimum of 12 "others" in respect to the nuclear observing self."

Because NUIT is the time/space continuum, time must be "nothing," much like the void of the purely spatial dimension. Time may be considered as a sort of box containing all observables and virtuals. Indeed, time is neither observable nor virtual; time is simply a parameter in quantum mechanics. Rigorously, time may be said not to exist. Indian philosophy identifies universal mind with time, and calls it Kal, Lord of Karma.

TIME ITSELF IS NOTHING, TOTALLY NOTHING. Therefore by the fourth law of logic (identity of opposites at the boundary--paradox), it can be said to be or contain everything, the total mishmash of virtuals and observables. Since in the absolute sense there is no such thing as time, then all modeling of space, mind, thing, and nonthing must be done spatially. Relativity theory attempts to use time as an existent dimension of the same kind as length, limiting rotation in lab space only in the direction of the time axis in Minkowski geometry of spacetime.

Spatial modeling requires an infinite dimensional space (NUIT) and an infinite number of orthogonal angles. The time axis that can be drawn in such a hyperspatial model has no meaning except with respect to a relationship existing between two or more hyperspace frames or objects. Specifically, the time axis represents the totality of all the hyperspaces and their objects, hence all the relationships that can be separated from the hyperspace.

The charge on an electron is due to the continual emission and absorption of virtual photons (little electromagnetic pieces of vacuum, the space/time flux, or little pieces of nothing. The simple movement of the electron is actually composed of a virtual cloud -- an infinite number of an infinite number of an infinite number of things (manifold), all happening in a mad tangle of nested substrata in the virtual state.

Each of these virtuals with respect to lab space is in fact an observable in some particular hyperspace. Many other sorts of virtual particles are emitted and absorbed and born and extinguished, in addition to photons, by various observable particles in free space.
EVERYTHING IN EVERY POSSIBLE WORLD OR HYPERSPACE IS RELATED TO EACH AND EVERY OTHER THING IN THE LABORATORY WORLD THROUGH ORTHOROTA-TIONS AND NESTED VIRTUAL STATES.

Cross talk between hyperframes is the emergence and disappearance of virtual particles in a particular frame. The universe is holographic. **IF ANY PART OF THIS VIRTUAL CHAOS CAN BE COLLECTED AND COHERED IN EVEN THE SLIGHTEST DEGREE, ANY AMOUNT OF OBSERVABLE FREE ENERGY CAN BE OBTAINED.**

But back to our electron. If we now remove the electron, leaving empty vacuum, all sorts of virtual madness is still there and occurring. Vacuum is infinitely dense and filled with stupendous "zero point" vacuum energy; **IT IS TOTALLY CHAOTIC AND VIRTUAL.** Space itself is an infinite tangle of virtuals -- virtual projections from real observables in associated hyperspaces -- and these dynamic interactants make up any three-dimensional

space and hyperspace itself. They are also what cause space itself to exhibit the finite nonzero parameters or values that must be accounted for in our physical equations.

EVERY FUNDAMENTAL CONSTANT OF NATURE IS DYNAMICALLY CONSTRUCTED FROM -- AND DUE TO -- THE ZERO POINT, VIRTUAL VACUUM INTERACTIONS THAT CONSTITUTE "EMPTY" SPACE (NUIT).

THE VIRTUAL "SEA" OF SEETHING WAVES AND PARTICLES THAT IS EMPTY VACUUM IS ACTUALLY AN ETHER -- A NON MATERIAL VIRTUAL ETHER. It is perfectly admissible by the Michelson-Morley experiment and consistent with the entire experimental basis of physics. EINSTEIN ONCE PROPOSED NAMING THE VACUUM AND ITS CONTAINED FIELDS THE "ETHER," BUT HIS SUGGESTION WAS NOT HEEDDED.

We now know something quite unusual about an electromagnetic wave and about a photon. Because it oscillates with respect to time, the wave moves along the axis of velocity in lab space for single wavelength, then repeats itself again and again. The oscillation actually represents an orthogonal, rotating etheric or hyperspatial flux about the velocity vector. All three vectors of an EM wave are comprised of nested tangles of virtual subvectors.

This spinning (exploding and imploding) flux is coming into lab space from outside it (from virtual states) and returning into virtual states. It is a neutrino flux. (See Fuller for the synergetics of explosion/implosion; they relate to VEM). If the sine-wave cycle has enough energy, it leads to pair production, the creation of an electron and a positron. The positron is an electron traveling backward in time, just as Dirac predicted.

During any time interval--including the period of a single oscillation of a photon--a photon may be considered to consist of an infinite number of virtual happenings, each consisting of an infinite number of subhappenings, and so on. It is much like the fractal nature of self-generation and self-iteration in nature. It repeats itself at all levels of organization.

The photon itself may be considered to have a direct, nested virtual substructure, and this substructure is directly hyperspatial in nature as well.

ACTUALLY THE ELECTROMAGNETIC FIELD IS NOT THE MOST FUNDAMENTAL FIELD, BUT IS SOMETHING THAT IS TORN OUT OF, OR SEPARATED FROM, A MORE FUNDAMENTAL FIELD: THE VECTOR POTENTIAL. Maxwell's equations and the normal concept of an EM wave and single frequency thus represents only gross envelopes of the actual forms and structure of waves and fields. The personality covers and distorts the essence or soul in much the same way.

NEUTRINIC WAVES CAN BE REGARDED AS A CIRCULATING OR SPIRALING WAVE IN AN EM FIELD. This may well be the spinning wave of orgone energy identified by Reich. Neutrinic waves interact more strongly with strong electrical or magnetic fields. The degree of interaction increases nonlinearly with the intensity of the fields with which the interaction occurs.

We presently regard an EM wave as a wiggle of nothingness, existing in time. This is precisely the same as saying that a photon is an oscillation (wiggling) of spacetime itself. Specifically, it oscillates in two directions spatially, one being the electric field direction and the other the magnetic field direction.

But since an EM wave itself constitutes a regular bending and flexing and curving of spacetime, including both space and time, then the flexing spacetime inside the photon can itself be further bent or twisted, and that constitutes a kinked or curved photon--a modulated photon.

It is nonlinear, but our lab space instruments demodulate such a kinked photon into its linear components. Still the modulation of a wave results in direct changes in the virtual structure of the formerly unmodulated photon, relativistically warping or curving it. A mixture of waves and frequencies must automatically possess, carry, or represent hyperspatial-virtual patterns in the correct nonlinear medium that absorbs them.

When we modulate a wave, we impress a time change on it, we differentiate it. We impress a differential operator function on it. In other words, to modulate an electromagnetic carrier wave is to add a hyperdimensional aspect -- specifically, neutrinic vector aspects of mind aspects. The whole affair can be thought of as merely shifting or altering the particular distribution of nested virtuals transported by the basic carrier wave.

When we form a mixture of waves, we are adding virtual aspects (and hyperspatial aspects) in so doing, because of the phase differences. This is extremely important: **COMPLEX MIXTURES OF WAVES AUTOMATICALLY CONSTITUTE AND CARRY HYPERSPATIAL COMPONENTS.** Complex, dynamic mixtures are chaotic. And if we can accurately control these hyperspatial components, we are in effect doing direct hyperspatial engineering and virtual state engineering. By using two orders of modulation on a carrier, we can directly affect mindstuff itself.

Time spikes can be introduced across the body as pulsed voltages. They are modulated directly on the dendrite firings of the brain and nervous system, providing direct and pulsed modulation of the neutrinic and mindfield component channels of the mind-brain-consciousness-life loop itself.

Hyperspatial engineering, virtual state engineering, curved space, photon kindling, mind-life-consciousness engineering, and nested modulation are all the same thing. We directly engineer the virtual state, hyperspace, curved spacetime, and the life-consciousness loop itself, including the mind, with relatively simple devices that accomplish, transmit, and receive nested orders of modulations. For each modulation pattern, a particular virtual structure is impressed on the photon, which is the same as impressing a particular hyperspatial pattern upon it.

Fundamental CHAOS shows up in cellular biology. In studying cellular electromagnetic bioactivity, the cell behaves as a system far from thermal equilibrium (deterministic chaos). In such a system negative entropy can result, and order can emerge from disorder. For a wildly disordered system, large-scale order can emerge and stabilize, and **THE MORE CHAOTIC THE DISORDER, THE GREATER THE STABILITY OF THE**

ORDERED PATTERNS THAT EMERGE. TOTAL DISORDER MUST INEVITABLY TURN INTO TOTAL ORDER. LIVING CELLS PRODUCE COHERENT LIGHT WITH A LASERLIKE ACTIVITY. THIS COHERENCE SERVES AS A CONTROL FOR THE METABOLISM OF THE CELLS, REGULATES GROWTH, AND FIXES THE REPRODUCTION RATE. The cells exhibit superconductive behavior.

Every living organism possesses a living aura, with a virtual photonic flux. In this field, virtual photons are stored. The field continually receives inputs (virtuals) from the environment and is continually outputting biophotons, particularly in the near ultraviolet. THIS FIELD, IN WHICH ALL CELLS ARE BATHED AND WITH WHICH THEY ALL CONTINUALLY INTERCOMMUNICATE, TENDS TO STABILIZE AND COHERE THE ORGANISM (Popp).

IT'S ALIVE

Stress-producing metaphysical gas stretches and strains nature to yield into social-evolution conformations such as the gas-filled plastic tube of Universe.

--R. Buckminster Fuller

The secret of the universe is that it's alive. Einstein's spherical model of the cosmos is a primary example of a holographic universe. In such a closed spacetime, each point inside the universe is also at the extreme end of the universe in any direction. Thus the entire physical universe (Nuit) is totally outside any of its internal points, and totally inside each internal point (Hadit) as well. THE TOTAL INTERNAL IS IDENTICAL TO THE TOTAL EXTERNAL.

It is proposed that each fundamental particle having electric charge represents a dual closure of the entire physical universe. The gravitational field closure is slow and weak, and it is that closure which results in the so-called external physical universe.

Harking back to quantum cosmology, we can speculate that our universe has many of the traits of a living thing. It was in a sense born from a hyperdimensional black hole in another stretch of spacetime, in another geometric realm.

Physicist Lee Smolin of Syracuse University has postulated that universes are born to strive and live and die. They change form little by little--or evolve. A universe may give rise to a number of new universes, throughout its individual history. As in natural selection, the offspring with the most successful survival strategies prevail. The whole collection of universes may be said to evolve.

Drawing inspiration from the Gaia Hypothesis, he extrapolates that the universe may be a mother, hatching baby universes that live and die, and, like the organic species of the earth, evolve. (See OMNI, Oct. 92, "The Bubbling Universe"). The universe, galaxy, and earth sustains life through a series of interrelated feedback loops.

If one applies quantum theory to the geometry of spacetime as described by Einstein's theory of relativity, one can conclude that very tiny fluctuations in spacetime are taking place around us all the time. As a result, occasionally, a piece of our universe might bulge

out, like a weak spot in an inner tube. Extending via a thin wormhole, the blob would stretch until the frail link snapped, leaving an isolated entity of space and time disconnected from our universe--a "baby cosmos," where the laws of physics might be quite different from our own.

Coleman, Hawking, Baum, and Strominger have proposed that our own universe may "give birth" to offspring of a sort. Most are submicroscopic entities a billionth of a trillionth of a trillionth of a centimeter across. A great proportion would pop away from the parent cosmos only briefly before being reabsorbed. But a few might have the potential of turning into something much more vivid and impressive. Such "buds" can suddenly and extravagantly "flower," turning swiftly into gigantic, rapidly expanding entities massive enough to contain billions of galaxies; each entity constitutes a full-blown universe of its own.

HOW COULD A TEENY-WEENY QUANTUM FLUCTUATION BOOT-STRAP ITSELF INTO A FULL-FLEDGED COSMOS? (Ref. the "butterfly effect" of chaos theory, pumping from micro- to macro- effects). With help from the dense, virtually inescapable center of a black hole, where the density of matter and energy becomes infinite. Just before matter in a black hole reaches singularity, a baby universe begins to expand.

Our universe could have grown from the inside of a black hole in another universe. This reflects the mythic Qabalistic creation story of emanation of Kether, the Source, from the three negative veils of existence. Darwinism applies not just to organic life forms, but over megacosmic dimensions as well. We owe our existence and physical laws to the trial-and-error evolution of untold generations of prior universes, a chain of mother-and-child cosmoses, each of them spawned in the nurturing depths of black holes. (Ref. days and nights of Brahma=Om=108, number of the Universe).

*

1999 Update: All is motion, without and within. There is no force field in the vacuum, as such. But we can think of it as "virtual," rather than "observable." A virtual electric force field exists in the vacuum, comprised of accelerating virtual masses, but not an observable field. This is beyond the physical, and into the metaphysical domain. Observable particles can exist only in a physical medium. The ambient vacuum stress (potential) has a hidden internal wave structure. Its synergetic compressive stress reacts internally against atoms with their inner and outer parts. Reaction from the nucleus induces a tensile stress, which can be decomposed into opposing forces.

The vacuum may become the central ingredient of 21st-century physics. It is technically metaphysical -- beyond the realm of physics because it is virtual, rather than manifest. These causeless fluctuations in energy create force fields that emerge from nowhere. Particles flit in and out of existence at the threshold of matter. Virtual subatomic particles pop out of nothing and instantaneously disappear. Therefore, so-called "empty" space is not empty at all, but a seething sea of activity that pervades the entire Universe.

The vacuum "sea" is an inexhaustible reservoir of energy. Its permanent positive energy density is synergetically balanced by a negative pressure (a tension). This relates directly to the newest concepts about cosmic inflation in cosmology. Inflation predicts that the density of mass-energy in the Universe is right on the borderline between expansion and collapse. Vacuum energy can account for some of the missing mass predicted for the Universe.

The rest is accounted for through inertia. Inertia is generated by acceleration through the vacuum. Fluctuations in the vacuum give rise to a magnetic field through which all objects move. As they accelerate, each particle feels the grip of this magnetic field, and that resistance is inertia. The larger the object, the more inertia. By altering the vacuum state, it could be possible to alter the inertia of objects. This opens a host of engineering possibilities.

The vacuum plays a key role in structuring the Universe. Astrophysicists says that the vacuum accelerates charged particles, sweeping them up to form concentrations of matter surrounded by vast cosmic voids. Philosophers were right: Nature does abhor a vacuum. Even empty space is seething with activity. It is the vacuum energy fluctuations which cause "white noise" in electronic circuits, and limits the level to which signals can be amplified. Might this be the metaphysical basis of the audible life stream, the Sound, the Word in mysticism?

* * *

In an interview with *Megabrain Report (1991)*, Bearden has some interesting comments on the collective unconscious:

"Jung's collective unconscious, for example, consists of archetypal infolded EM structures acting in common in an overall bio-quantum-potential for the entire species. Gaia, the living earth/biosphere, really does scientifically exist as a common bio-quantum-potential with infolded living EM structures for the entire earth biosphere. The bio-potential in a single body is an overall quantum potential that links and joins all the atoms and cells of the body. The "spirit" of the biosystem, if you will, is its "living biopotential"--its living quantum potential. We already know that a potential is everywhere nonzero all the way out to infinity. So the spirit of the living system is--in the virtual state--everywhere in the universe--and everywhen as well. It's all a giant hologram, not only in space, but in spacetime.

The entire universe is everywhere alive, with everything. Note that if you simply examine the "ghost forms" requirement of quantum mechanics, this conclusion is inescapable. All life is eternal. Nothing is ever lost.

A thought or thoughtform is just a specific, dynamic Whittaker structure in the hidden EM channels of the biopotential. Thoughts and thoughtforms are real. They are virtual spatially, but they occupy one "real" spacetime dimension, time. Physics and metaphysics share one common, nonobservable dimension: time. So long as physics continues to have to have time, which is nonobservable

a priori, then it also must contain everything that is a structure or action in time.

With Whittaker EM engineering, you can conceivably "make" thoughtforms to order, and input them directly into the mind and longterm memory. If we view the conscious mind as a special serial computer, we have now found where the software is--for mind, longterm memory, and personality. As scalar EM technology develops, we will have direct access to the software, so to speak, for the very first time. And we will be able to engineer it at will."

PANTHEON PREFACE (1999): When I began my own study and practice of pathworking, it became readily apparent to me that there was much more to be learned about godforms in Jungian literature than in all the Qabala and Magick books put together. But no one had been very comprehensive nor systematic about their presentations. *Pantheon* is a broad survey or study of the archetypes as discussed in the literature of Jungian Psychology. Typically, the Jungians discuss archetypes by using the Greek godforms, since they are generally more familiar from school days and considered more "user-friendly". But pantheons are a cross-cultural phenomena, so a table of correspondences is provided to translate into other cultural pantheons.

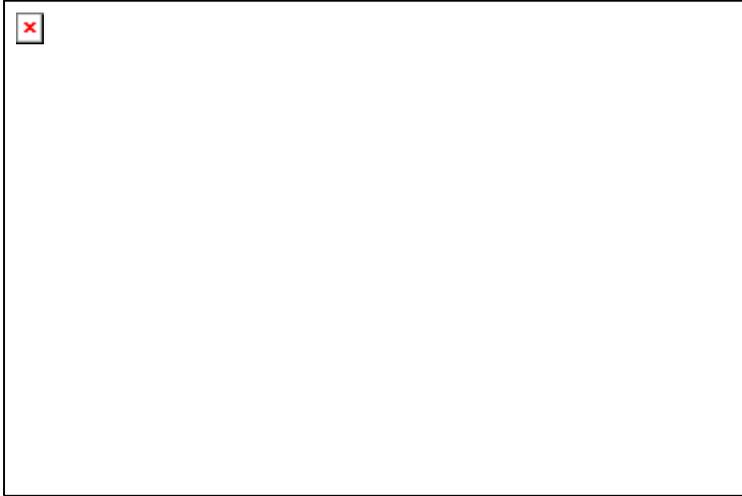
This is not neo-paganism. These gods and goddesses are not presented as objects of worship or veneration, but as universal autonomous forces with their own agendas which weave constantly through our outer and inner reality. They are relevant in daily life because they are the motivating factors behind our beliefs, thoughts, feelings, and behavior. We can hardly hope to be self-directing individuals without some knowledge of their patterns and effects on our lives and souls. In this work, the correspondences of godforms to chapters is patterned after the Paths and Tarot Trumps. A godform is corresponded with each Trump through astrological attributes. This makes Pantheon useful to students of Tarot, Qabala, astrology, and Jungian thought.

When I first wrote it in 1983, it was the first and only compilation of this material in one convenient source. Since then, Jungian ideas became mainstream and several analysts and other Transpersonal Psychologists have offered many workshops and written excellent books on "personal mythology." These include such eminent personalities as Joseph Campbell, Jean Houston, Robert Bly, Jean Shinoda Bolin, and Stan Krippner to name just a few. Yet, this volume still has something unique to offer with its workbook format, suggestions for further study, and the qabalistic spin. Myth has become an important core feature of modern spirituality.

PANTHEON

ARCHETYPAL GODFORMS IN DAILY LIFE

by Iona Miller, c1983



"Temple of Zeus"

PREFACE

FOREWARD

INTRODUCTION

The Concept of Archetypes

Perceiving Archetypes in Daily Living

Archetypes as a Method of Self-Analysis

The Value of the Greek Pantheon

Relationships of Archetypes to Tarot and Astrology

The Four Levels of Experience

Archetypes as a Means of Self-Realization

Practical Techniques for Finding & Realizing the Gods Within

Pathworking with Godforms

Mythical Living: Metaphorical Perception of Experience

"PAEAN TO THE GODS"

Visualization Exercises

TABLE OF CONTENTS

sample chapters

New Chapters, 2002:

Uranus

Hermes

Artemis

Aphrodite

Athena

Hera

Eros & Psyche

Hestia

Demeter/Persephone

Hephaistos

Zeus

Themis

Poseidon

Thanatos

Artemis & Apollo

Pan/Priapus

Ares
Rhea
Hekate
Apollo
Hades/Dionysus
Cronos

Cultural Counterparts

FOREWARD

"...to behave is to choose one pattern among many."



"Artemis," photo by Robert Avalon, c1976

In the journey of life we all encounter forces and behavior patterns which seem beyond our capacity to understand and control. We say and do things we never believed we were capable of, and then claim we "must have been beside ourselves." Or, "*I wasn't myself.*" Our subconscious minds provoke us into behavior we would never consciously choose. Some of these are self-defeating or self-sabotaging and come through our shadow, while others let us glimpse that we are more creative, talented, or wise than we ever thought possible. These gifts come from the transpersonal end of the spectrum.

At first glance, each individual's problems, experiences, and innate qualities seem unique. Yet, from another perspective, we all share the common inheritance of a mythic dimension of life, which psychologist Carl Jung termed the "collective unconscious." We are walking compendiums of universal forces from which the details of our individual stories flow. Every story is a unique version of universal themes, the infinite in the finite. We are the very embodiment of universal themes of life, death, and rebirth.

All of our human potential for both "good" and "evil" comes through this subconscious source. It reveals itself through dreams, visions, art, fantasy, imagination, and myths or tales in all cultures. These themes and myths contain a value far greater than their creative or literary merits. Not only do myths inform us of the origins of thought and philosophy, they also reveal an ancient, sacred dimension of human experience.

The realm of the collective unconscious is "populated" with mythical figures which are described as gods and goddesses. Each has a retinue of corresponding moods, landscapes, personality traits, preferences, etc. These figures personify man's qualities or modes of being in the world. Each has particular characteristics. Knowledge of these characteristics or styles can enhance our personal journeys of self-discovery, and give us insight into our own motivations and choices.

Through personally discovering these godforms within and without, we gain access to a deeper understanding of both ourselves and others. We all share the journey of self-exploration, even though different aspects of it appear to each of us. Certain of the gods and goddesses may play a major or dominant role in our lives and those of our loved ones, but our imagination or psyche contains them all. The more of these basic patterns of life we have access to, the greater our experience of this mythic dimension of life which makes our conscious day-to-day lives even more meaningful. The point is not to consciously live one myth, or even one's myth, but to live mythically, in touch with that fabled dimension of experience.

The realization of our purpose, path, or personal potential has often been considered a "key" to life's meaning. To realize the fullness of one's personality and to develop our native abilities and personal characteristics to the highest degree possible is a worthy long-range goal. This has been the orientation of the human potential movement, and the personal goal of self-actualization, or self-realization...to experientially understand that, "*I am That.*"

PANTHEON, as a manual of personal self-discovery, is a practical guide to recognizing and realizing the origins and development of our individual characters and characteristics.

As such, it leads to a growth of self-knowledge, and gives us insight into the traits and behaviors of our acquaintances and intimates.

Pantheon provides not only background knowledge for reference, but also practical psychological technique which we can impliment in our journey toward understanding. One can gain access to the deeper psyche, soul, or imagination through both the rational and experiential methods. These are self-analysis and active imagination.

Active imagination includes consciousness journeys deep into the psyche, identification, and internal dialogues with personified archetypes. It is the dialogical method. This is a way of building experiential relationships with archetypal forces--harmonizing with them, honoring them. These are "*as if*" real relationships, not taken literally.

These internal dialogues can be useful, revealing the autonomous dynamics and agendas at work in our lives. They reveal things to us we know, but don't know we know. We can use many methods for this communication, such as journal work, hypnosis, or ritual. These are moments where we create and enter sacred space. These relationships reveal the meaningfulness behind the many complications in our modern lives.

The more we approach our individual wholeness, through expanding our awareness and experiences, the more we are likely to encounter these divine principles from the realm of imagination. This journey toward wholeness is easier to integrate into daily life with a psychological framework for containing and accomodating a wide range of images, emotions, moral views, styles of thought, beliefs, and even dress.

When we know the characteristics of the various archetypes, we find them relected back to our consciousness from the environment. We can learn to view their effects on our lives directly and gain in personal, social, and spiritual freedom. If we fail to become consciously aware of their effects, their spontaneous activation may produce devastating effects on the personality. They can create internal divisions in the psyche which may lead to the disintegration of personality. This can result in disease, self-destructive behavior, or even culminate in death.

As we mature into adults, many of us are forced by environmental factors to travel roads which do not follow our natural predispositions. This may create conflicts or crises in our lives, which require either change or understanding. Some of us are forced, for example, to work in occupations which do not really suit our personalities. For some it becomes a challenge to be met and accepted; others of us just feel like "square pegs in round holes."

Pantheon is designed to help us recognize and realize our talents and natural predispositions. In this manner, many misplaced persons should be able to develop latent talents in areas where they could excel through natural aptitude, at the same time finding a sense of self-fulfillment on the job and in relationships.



INTRODUCTION

THE CONCEPT OF ARCHETYPES

The work of Swiss psychologist Carl Jung (1875-1961) has become of greater and greater interest to the general public. His works or their summaries are part of almost every seeker's list of books to read. The growing interest in Jungian Psychology (or Depth Psychology) stems from the fact that it answers the needs of many people as a means for relating to "internal" as well as "external" reality. These people are seeking a fuller understanding of the meaning of life in such areas as dreams, fantasy, compulsive behaviors, and self-exploration or spiritual enrichment.

The main focus of Jung's work stressed the search for meaning and the development of individuation, psychological wholeness, or integrity of the personality. Jungian therapy opened the door to the collective unconscious for many, not only to their subconscious desires and motivations but also to their higher spiritual aspirations and potentials.

Jungian psychology describes the meaning of symbols and events on the spiritual quest for self-actualization in non-religious terms. It is extremely useful for self-analysis. By gaining a working knowledge of the temperaments of our various facets and how they interrelate, an integration or synthesis of personality becomes possible. This results in high well-being and increased creativity.

In practical terms, Jungian therapy includes developing awareness of internal guiding principles, or archetypes. You don't need a personal therapist to discover these archetypes within. We can discover them ourselves if we know what to look for during periods of reflection or introspection. Knowing the patterns, they can strike us directly when we catch ourselves in the act of watching them act through us.

An archetype is an innate, or in-born pattern, part of our hardwiring, which functions as the underlying matrix behind any event. They are not necessarily transmitted through our genes, but they are fundamental to our method of perceiving nature, God, and man. They

are the very substance of our experience of life. They act like filters or lenses for our perception.

Archetypes may be seen as embodiments of specific functions, and their characteristic patterns may be personified by giving each a name. In this way, we can learn to recognize archetypes when they appear in our lives affecting styles of behavior, thought, emotions, attitudes, and dress. By personification, identifying and naming them, we can take up a meaningful relationship with these characters of our internal world. We gain the option of holding imaginal discussions with them about their attitudes, desires, and opinions.

The Jungian perspective sees the human perception of "reality" as originating in a projection from an internal motivating factor (or archetype) onto our environment. Since we do not perceive the universe of experience directly, but through the filters of our senses, we experience archetypes through sight, touch, taste, smell, and sounds, and the metaphorical equivalent of these senses in our imaginal life.

They also appear in human typology, and the various functions of feeling, sensation, intuition, and thinking. Because of their nature's we are introverted or extroverted, thinkers or feelers, knowers or doers. They are constantly maneuvering our human lives as if we were puppets. In the ancient past, when these powers of the archetypes over the human will were intensely dramatic, or negative, this phenomenon was termed "possession," and it could be demonic or spiritual in nature.

On a more common level, archetypes are constantly affecting our value judgements, priorities, emotional relationships, work situations, and daily life responses in the physical world in an unconscious way. Sometimes these appearances of archetypal patterns are appropriate, in tune with conscious goals; but sometimes the archetypes seem to have a goal of their own, independent of (and perhaps self-destructive to) our personalistic ego desires. "They" don't seem to know or care what we want. How can we be self-directing when their influence is capricious and subconscious?

Civilization is largely the result of mankind's conscious understanding and taming of primitive instinctual forces of the archetypes. With fewer and fewer "taboos" to control our society, we need to understand our own emotional upheavals so that we aren't overwhelmed by them. We can evolve to an understanding of our subtle and not-so-subtle inner urges, in which case they cease to compel us and begin to work on our behalf. Thus, we can grow out of counterproductive behaviors into the ability to actualize our higher goals.

It is these underlying matrix patterns within the psyche which produce the outer behavior. When we can see that archetypes are motivating factors, it is also possible to intuit how a knowledge of their particular characteristics could be useful in understanding the complexities of life.

But, are these gods and goddesses real in the objective sense? Can they really manipulate our behavior so subtly without us noticing them? According to Jung this is true, and we all share this condition. Even those trained in these areas maintain psychological "blind spots" where we fail to see the archetypes moving us.

Jung saw man, not as an isolated individual, but as being linked with the whole of mankind (and mankind's abilities) through the collective unconscious. This unconscious manifests in the multiple forms of gods and goddesses. These figures take different, though analogous forms in the various mythologies of the world's cultures.

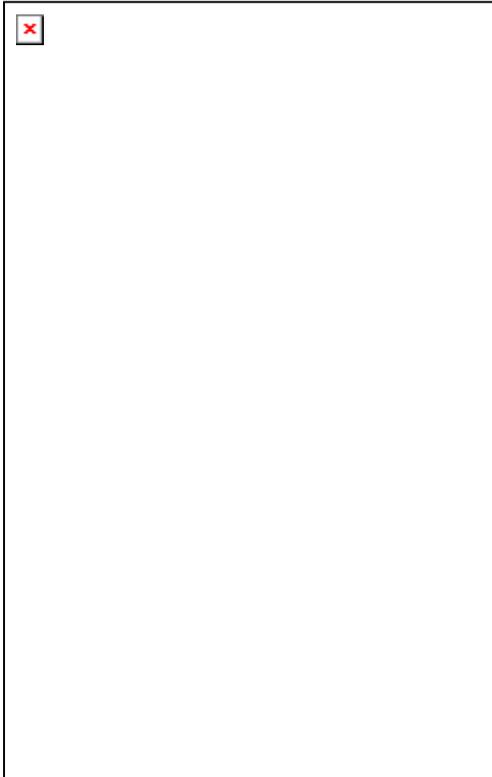
Thus the goddesses Isis (Egyptian), Artemis (Greek), and Diana (Roman) all share a common essence and use the same lunar symbolism. The same generic form is also behind the Catholic's Blessed Virgin Mary, and all are derived from the theme of Celestial Queen.

These forms, or archetypes, should not be thought of as nouns (things), but rather as semantic metaphors. They represent powers or qualities, but when we personify them it is "as if" we take up a relationship with another entity. They assume an anthropomorphic form in imagination in order to make a dialogue easier. This dialogical exchange is just a variation of the I-Thou communications of mysticism.

*Ancient Uranus, heaven's Titan of old,
Gelded by Chronos with one stroke so bold.*

CHAPTER 0: THE FOOL

URANUS



Uranus characterizes the original evolutionary impulse -- the mystic grandfather of all existence. The story of Uranus is rooted in the Greek Creation Myth. It speaks to

us from the remote depths of the unknown, before the birth of human consciousness. It represents an aspect of the universe which appeared before space and time (Cronos). Zero is pure unmanifest potential, even prior to the original impulse. Its psychic equivalent is superconsciousness.

In the Tarot, this trump is numbered 0, and alternately 22, implying it is nothing *and* everything. All matter plus gravity in the observable universe equals zero. So the universe could come from nothing because it is, fundamentally nothing (Guth, 2002). In the Vedas, all creation is considered mindstuff -- an illusion of being.

Return to the primordial vacuum, a boiling stew from which pairs of positive and negative subatomic particles bubble into being for the briefest of instants. Inflationary theory suggests that what erupted was a "false vacuum," a peculiar form of matter predicted to exist by many particle theorists. It is characterized by a repulsive gravitational field, one so strong it can explode into a universe.

The false vacuum does not "thin out" during expansion; rather, its density remains constant even as it grows, creating vast quantities of ever-doubling energy, which decayed into a seething plasma of particles such as electrons, positrons and neutrinos. This hot soup neutralized to form simple atoms 300,000 years later. The simple atoms, like hydrogen, helium, and lithium, were ripped apart and crushed together to form more complex, heavier atoms inside stars. Exploded into space by supernovas, they became the matter we see--and are--today.

In terms of personal experience Uranus represents experiences from conception through growth in the womb (space/time) and emergence into independent existence. It is pre-conceptual consciousness, pure creative consciousness emerging from the fount of *Chaos*.

Uranus is a god of the starry heavens, and was not the first force to appear in the Universe. According to this classical myth, only *Chaos* existed in the beginning. The seemingly random element produced Gaea, the deep-breasted earth or matter, from within infinite potential. For matter to exist, the force of attraction also had to appear (super-celestial Eros). Uranus, the starry heavens, is Gaea's first-born child.

In other words, the first descent of matter into the threshold of concrete existence came from a chaotic matrix, the virtual vacuum fluctuation. This cosmic trinity of chaos, matter, and attraction lies at the heart of modern chaos theory. It bears directly on another Greek archetype that we all share--the psyche.

Scientists have found that the principle of underlying chaos deterministically conditions many of the patterns of physical existence. Chaos is found in our brainwaves, heartbeats, the fractal structure of our breathing, circulatory, digestive, and nervous systems. We see chaos in all natural processes from the weather to evolution. And the turbulence in our lives reminds us that "we are that."

Just as the ancient pantheon provided a foundational orientation for the Greeks, so chaos theory can provide us with a model of consciousness for constructing cognitive maps of the psyche and experiential consciousness journeys. Uranus-consciousness

is experienced as drifting and floating in vast expanses of starry space, or identification with galaxies from the barely formative stage to full spirals, and feeling that spirally motion until letting go to primordial chaos.

By embracing the chaos in our lives--learning to re-honor the principle--we can begin balancing out millennia of identification which held that only order equates with "good." Part of our cultural heritage is the programming that we should stave off chaos and disruption at every point. But the continual dynamic interplay of chaos and order is fundamental to our well-being. Embracing that in the here and now is the foundation of our existential situation, and conditions us in terms of faith and trust, worry or freedom from fear.

Uranus represents deep subconscious forces which operate well below the normal state of awareness. It is nonlinear, free consciousness which emerges in unexpected, bizarre ways like dreams and intuitions when the ego is asleep or preoccupied. In terms of states of consciousness, it is cosmic consciousness, a non-ordinary perception of oneness with deep space and identification with all creation -- past, present and future.

Uranus is the first patterning of matter once it emerges from total chaos. In embryonic development it means the stage from conception to that where all cells are still completely undifferentiated and full of all potential. There is no brain development, so the experience is totally raw, impressionistic and visceral.

Sometimes it is psychologically more fruitful to "let go" of control, pass through the chaotic de-structured state, and discover what happens on the other side. Chaos is definitely part of the process of creation and creativity. It generates the new order spontaneously from deep within itself.

What makes it imperative for us to embrace the new scientific paradigm implied by chaos theory? By rejecting chaos, we reject Gaea. And she is not only the Earth, the love of the planet, the integrity of life forms, but all matter in the universe including your own physical body. Returning to these deep states of consciousness, the well-springs of our being, fosters a new kind of love of our own physical embodiment. This new image of self arises from the most primordial level.

Whatever the essence of chaos is, we are that. By rejecting it, we run the danger of rejecting our selves. Chaos is the essence of life. Chaos is essential to health. Chaos describes the structural growth patterns in nature. Chaos theory leads to a new vision of matter, one no longer passive, but one associated with spontaneous, creative, nonlinear activity, and a healing state of consciousness.

PHYSICAL FORM

We repeat the creation myth when we are conceived as living beings from the raw material of atomic substance in interaction with the universal consciousness field. Scientists tell us now that we are made of same stuff as the stars. Our elements were forged in a supernova explosion. The material of the universe is constantly recycled through many forms. The interaction of positive and negative elements results in the

force of attraction, variously termed gravity, electromagnetism, or love, or conception. Thus the force of generation arises, or is born.

Uranus represents a grossly unconscious condition. We might all be said to begin in this primordial condition in the womb, where we are united with the ocean of the subconscious, or primal mothering principle. When awareness first develops, it is on a grossly material level. All signals come from the physical body, with no awareness of "out there," the world of space and time.

As we grow older, signals still come to us through our bodies, materializing in the form of psychosomatic disorders. These come to us through Uranus who fathered our prototypical instincts in an incestuous union with his mother Gaea. The birth of the children of this pair, the Titans, marked a golden age for mankind's awareness. The age of the Titans meant that mankind lived in harmony with his instinctual nature, since he had no awareness to set up a conflicting point of view. There was no dichotomy.

The Titans were the forerunners of astrological signs of the Zodiac and included Theia, Rhea, Mnemosyne, Phoebe, Tethys, Themis, Oceanus, Coeus, Hyperion, Crius, Iapetus, and Cronos, plus assorted monsters. But, Uranus, had a curious relationship to his offspring and sought to repress their appearance. His method was to push them back into their mother, or imprison them in matter.

This repression of instinctual energies seeking a form in matter results in a blockage or obstacle which manifests as a psychosomatic disorder. That which cannot achieve spiritual birth is condemned to manifest in matter, since it can achieve consciousness no other way. The repressed instinct confronts the human awareness in such disorders as asthma, allergies, and colitis. No wonder the body gets indigestion from these "children" being shoved back down its throat. The body is forced into hysterical over-reaction and peculiar immune system response.

Uranus represses his own power of creativity, or at least its manifestations. The result is the seeds of rebellion sprout in a plot between Gaea and Cronos. Time and materiality conspire to limit the domain of Uranus. The genetic pattern is continuing to unfold and more and more structure develops in the fetus. Over time, corporality creates a more developed central nervous system which develops qualitatively different perceptions from the undifferentiated organism. When Cronos or Saturn solidifies as the ego, the Uranus consciousness is recalled as a pre-egoic state of intimate identification, undifferentiation.

Cronos castrates his devouring father, emasculating him and freeing his siblings. Archetypal patterns repeat themselves over and over. Archetypes function in the psyche like the magnetic strange attractors of chaos theory. They are the center around which certain patterns gravitate. Time and matter eventually limit the manifestation of the archetypal instincts. We become conditioned to some patterns over others. Our total potential becomes limited to a finite portion of fate or destiny which our brief lifetimes afford. They return to their mythic dimension when we

die, and our atoms are transformed back into their primordial elements, perhaps to recombine in vastly different bodies.

The main issue or myth theme of Uranus is the tendency to drastically limit his own potential for engendering and procreation. There are many forms of physical creativity. With no foresight or hindsight, and no perspective on time, he fought against the actualization of his own creative potentialities through self-destructive reactions. When we engage in self-defeating, self-sabotaging efforts that nip our creativity in the bud, we are acting like Uranus. This hostile ancestor was a reluctant progenitor, who paid dearly when time finally caught up with him.

In the *Newsweek* article, the neuromagnetics research of neuropsychologist Dr. Michael Persinger is given a cursory review in regard to Temporal Lobe Transients (TLTs) which are implicated as miniseizures in producing a variety of perceptual anomalies combined with a sense of deep meaning. Persinger identifies the temporal lobes as the biological basis of the God Experience, "the God Module," in his 1987 book *Neuropsychological Bases of God Beliefs*. He comments on the purpose of his research:

"As a human being, I am concerned about the illusionary explanations for human consciousness and the future of human existence. Consequently after writing [NBGB], I began the systematic application of complex electromagnetic fields to discern the patterns that will induce experiences (sensed presence) that are attributed to the myriad of ego-alien intrusions which range from gods to aliens. The research is not to demean anyone's religious/mystical experience but instead to determine which portions of the brain or its electromagnetic patterns generate the experience. Two thousand years of philosophy have taught us that attempting to prove or disprove realities may never have discrete verbal (linguistic) solutions because of the limitation of this measurement. The research has been encouraged by the historical fact that most wars and group degradations are coupled implicitly to god beliefs and to the presumption that those who do not believe the same as the experient are somehow less human and hence expendable. Although these egocentric propensities may have had adaptive significance, their utility for the species' future may be questionable."

His technique, using solenoids in a helmet for input, is fairly simple. A hand-held computer programs the predefined pattern at which the fields will fluctuate. The impulses move through the temporal lobe and penetrate deep into the brain, where they interfere and interact with the complex electrical patterns of the subject's neural fields. The new patterns spread through the limbic system, producing sensations that range from subtle to profound. Persinger's research goal is to use his device to trigger transcendental experiences in nonreligious people faced with the fear of death.

Persinger has tickled the temporal lobes of around a 1000 people and has concluded, among other things, that different subjects label this ghostly perception with the names that their cultures have trained them to use -- Elijah, Jesus, the Virgin Mary, Mohammed, the Sky Spirit. Some subjects have emerged with Freudian interpretations - describing the presence as one's grandfather, for instance - while

others, agnostics with more than a passing faith in UFOs, tell something that sounds more like a standard alien-abduction story.

Persinger has discovered that when he aims for the amygdala, his subjects experience sexual arousal. When he focuses the solenoids on the right hemisphere of their temporal lobes, they sense on the left side of their body a negative presence -- an alien or a devil, say. When he switches to left left hemisphere, his subjects sense a benevolent force: an angel or a god.

Focused on the hippocampus, the personal electromagnetic relaxation device will produce the sort of opiate effects that Ecstasy does today. So far, subjects report no adverse side effects. However, *"if you interfere with the opiate pattern, people get very irritated,"* Persinger says. In fact, *"they'll actually cuss you out."*

Persinger asserts that, *"God Experiences are products of the human brain. When certain portions of the brain are stimulated, God Experiences, tempered by the person's learning history, are evoked. They appear to have emerged within the human species as a means of dealing with the expanded capacity to anticipate aversive events. God Experiences contain common themes of "knowing," forced thinking, inner voices, familiarity, and sensations of uplifting movements."* God Concepts are determined by verbal conditioning; perceptions are constructions. When multiple events occur within a week, they are usually given special labels, such as "revelations," "communions," or "conversions."

People with TLTs experience vivid landscapes or perceive forms of living things. Some of these entities are not humans, but are described as little men, glowing forms, or bright, shining sources. The modality of the experience, that is, whether it is experienced as a sound, a smell, a scene (vision), or an intense feeling, reflects the area of the electrical instability. The experiences, whether visual or auditory, may have actually happened or they may be mixtures of fantasy and reality. Sometimes they may be fixed in space and time, while in other cases they may be as dynamic as everyday experiences. However, whether they are dreamlike or vivid, they are experienced as real.

Persinger is not saying that the experiences of God are synonymous with temporal lobe epilepsy. However, when vast depolarizing waves spread across millions of cells, all types of memories and fantasies are mixed and mashed together. But the God Experience is a normal and more organized pattern of temporal lobe activity, precipitated by subtle psychological factors such as personal stress, loss, and anticipated death.

The gut feeling is a sense of familiarity, deep meaning, conviction and importance, even euphoria or mania (alternately fear and terror). The brain's chemical reaction is to release natural opiates and other mood elevating neurotransmitters. During TLTs, the person peers into another realm which has many names, heaven, the world of spirits, or the other dimension. Trained meditators, (employing rhythmic stimulus to the CNS such as a mantra or "emptying", changes in oxygen and blood

sugar levels), can drive the temporal lobe into bouts of theta activity. Sometimes frank electrical seizures occur and the God Experience is reported.

Neuroscientist Todd Murphy, www.jps.net/brainsci/, has done a good job of summarizing Persinger's research in simpler language. He describes consciousness as a feedback interface of sensory and cognitive modalities. Low intensity magnetic fields orchestrate communication between lobes of the brain, at a speed much faster than the bioelectrical or biochemical process of neurons. Different signals produce different phenomena. The temporal lobes are the parts of the brain that mediate states of consciousness.

Multiple modalities are experienced simultaneously, with the implication that they are 'reset' all at once by neuromagnetic signals which come in pairs, running slightly out of phase with one another. In this way, neuromagnetic signals, like the two laser beams used to produce a hologram, might be able to store information. The speeds at which neuromagnetic signals are propagated and their capacity to recruit/alter multiple modalities suggests that they were naturally selected to make instant choices to alter states of consciousness, and to do so quickly to facilitate adaptive behavior.

Murphy's many articles include not only the production of consciousness and states of consciousness, the God experience, but *deja vu*, and the spiritual personality. Long-term memory is seated in the surface of the bottom of the temporal lobes in the para hippocampal cortex, closely connected to the hippocampus. Usually, there is seamless integration of past, present and future. We experience something in the present, compare it to the past and decide how to respond in a few seconds.

But once in a while, in *Deja Vu*, there is too much communication between short-term and long-term memories. Then the present can feel like the past. If present perceptions are shunted through the brain areas that process memories from the past, those perceptions feel like memories, and we feel we are re-living a moment stored in long-term memory.

The opposite happens in *Jamais Vu*: things seem totally unfamiliar because of too little connection between long-term memory and perceptions from the present. Nothing we experience seems to have anything to do with the past. If these experiences spill over into the amygdala they are highly emotional. If goes to the right it is unpleasant or fearful, to the left from ecstatic to beautiful. Another experiential phenomenon is time distortion.

Murphy describes the phenomenon of the Sensed Presence and how it emerges from out of phase processes in different hemispheres of the brain. He also relates the sensed presence with the behavior and feelings of romantic love.

The 'self' is what we experience when a specific pattern of brain activity is happening. It is linked to the Forty Hertz Component which appears from the temporal lobes, and two of its deeper structures, the amygdala and the hippocampus. The 40 Hz signal is only not there in dreamless sleep. The

maintenance of the sense of self is repeated 40 times per second and each time it can manifest a new emotional response to changing circumstances every 25 milliseconds.

These structures on both sides of the brain yield two 'selves,' two senses of self. One is on the left, and one on the right, but they are not equals. The left-sided sense of self is dominant in most people; right side subordinate non-verbal, introspective. The left is the one where language happens, maintaining our stream of inner words and thoughts about everything we experience or can imagine.

Each normal brain function involves a primary operative area on one side with a subordinate homologous or corresponding area on the other. On the other side of the brain, following the rule that each thing on one side of the brain does the opposite of what the same thing on the other side does, we get the conclusion that there is a non-linguistic sense of self on the right side of the brain. Usually the two selves work in tandem. But if the two fall out of phase, and the left-sided self manifests by itself, we experience our own, right-sided silent sense of self coming out where the left-sided sense of self experiences it as "other," as not-self. This leads to the phenomenon of **Sensed Presence, actually the **Silent Self**.**

Electrical activity in the amygdala, hippocampus and temporal can 'spill over' into nearby structures. If it ignites the visual area, intense visions of an entity of some sort emerge (left amygdala-positive imagery; right side-negative images/entities). Kindling the olfactory region leads to unique scents; the somatosensory stimulation leads to buzzing, energetic, or tingly sensations or perceptions of being lifted or floating; language center activation produces voices, music or noise; long-term memory (lower portion of temporal lobes) access yields interactive virtual realities, complete with emotions, much like waking dreams. The thalamus is implicated in aura vision, and the reticular activating system in life reviews.

Because positive thoughts (involving the right hippocampus), and positive feelings (involving the left amygdala) are on opposite sides of the brain, prayer or meditation changes the balance of activity on the two sides. These structures have some of the lowest firing thresholds in the brain and are thus likely to mismatch their metabolic rates of activity. Whenever that's happening, chances of the activity of the two sides falling out of phase with each other increases. Then the 'right self' is experienced as an external presence.

Sensed presence experiences become more common until the day arrives when God's presence is something the person feels at all times. In mystical experience language fails, and a person's sense of themselves can be transformed. Since we can't experience two senses of self, one is projected as other, the Beloved, either romantic or spiritual. There is thus some truth to the saying that the beloved is God, and that when we love God we are loving ourselves. I and Thou are One. The other becomes the Self.

Some of the paradoxical nature of Uranus is conveyed by his occupations:

**ancestor
astrologer
astronomer
cosmologist
electrician
grandfather
godfather
humanitarian
hypochondriac
inventor
metaphysician
revolutionary
X-ray technician**

EMOTIONAL IMAGE

There is an interesting expression of the paradoxical nature of the wholeness or unity of consciousness represented by Uranus in our modern culture. The cosmological Uranus is a malicious, ferocious power who thwarts even his own progress. This picture of conservatism is directly opposed by the image we find of Uranus in modern astrology. Since Uranus was only discovered in 1781, it has no ancient Chaldean astrological tradition like the bodies lying within the "ring pass not" of Saturn.

When we look to the astrological descriptors of Uranus, we don't find a model of conservatism, but just the opposite. Here Uranus is the random element or creative innovation, as well as erraticism and rebellion. Uranus reveals the underlying matrix of Chaos at work in the universe. It is a structure-annihilating force. It shows while spirit is still working through material conditions it is completely controlled by the mind. Uranus is the great synthesizer of the various aspects of intelligence symbolized by all the planets and weaves them into a synthetic whole, and from that comes the fully individualized human, the complete person, the master.

This paradox of building and annihilating forces embodies the fight against one's self, symbolized by the eternal battle between youth and old age, the generation gap. The polarity of this situation stems from the different archetypes motivating the participants. Youth resolves to live in a liberal manner, different from the traditional collective values of the ancestor, and the battle is on! The "old guard" would like to control and direct the youth into fitting into his world, but the youth would create a unique future development of his own.

In our life experiences, we are sometimes the youth and sometimes the conformist, the liberal or conservative. Our position at any given time is relative to our social position, age, and relationships. Those locked in the Uranus perspective are unconscious of their attitude and lack any self-awareness or psychological insight. This yields an unconscious identification with herd instinct or group consciousness, with no room for individuality.

When we move into structure, we tend to become more and more rigid, the patterns become more fixed. This order is self-generated from chaos, but when it becomes too rigid, the process moves toward chaos once again--death, decay, total de-structuring. It happens on the physical level to our bodies, to our emotions in our ups and downs, in the creation and destruction of our thoughts, and in the transformations within our belief systems. We embrace and identify with a pattern which emerges from the creative chaos, but eventually we must sacrifice it, let it go--for no pattern is our true essence.

Specific keywords for Uranus include:

<p>adventure bizarre antiquity clairvoyance constipation conventional cosmic creation disruptive emancipation erratic explosive impotence ingenuity intuition invention investigation genius gross materiality grotesque nonconformist obstacles occult originality</p>	<p>psychosomatic paranoid precipitate quest radical radioactive reforms revolution rebellion repression roving sarcasm spasmodic strange surprise tantrums telepathy turbulent unconventional vapor vibrant whimsical whirlwind zealot</p>
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INTELLECTUAL IDEA

In participation mystique, the consciousness is identified with the environment through projection. Through the psychological process of individuation, we do not become indifferent to the material world, but the nature of our involvement with it changes.

As the projections of our instinctual or archetypal natures are gradually recognized and assimilated, the character of an individual's relation to the world undergoes a profound alteration. When we get these projections returned to the organism this time, it is on a mental level, and we can digest them rather than letting them make us ill.

The identification with an object (a role, another person, a possession, etc.) is known as participation mystique. It means part of oneself is "projected" into, or becomes invested in something other than oneself. The identification is pre-conditioned by the primal self image and subsequent experiences.

Uranus creates some bizarre twists in participation mystique. For example, the third-world wife of an "UFO abductee" began to have her own confirming experiences. Simply put she had two choices--to reject him and his reports or join in. At the end of a prior marriage, having no skills, she was forced to stay over a year with her ex-husband because of financial and dependency issues. Still in the same boat, her subconscious colluded in providing her with common bizarre UFO experiences with her husband. They live in an isolated world with no identifiable boundaries or sanctuary; it is just the two of them against the disbelieving world and the unknown, invasive, violating force.

In a more mundane, yet typical example, a couple of lovers involved in this level would allow one another to symbolize their un-lived aspects of life (contrasexual side), instead of developing a consciousness which perceives all individuals as having both male and female qualities.

Folie à deux [fä l´ a doo´] is the simultaneous occurrence of the same mental disorder in two people who are closely associated, when one appears to have influenced the other. (From French; "double insanity.") Similarly, folie à trois, folie à quatre. Shared psychotic disorder (Folie à Deux); a variety of dissociative behavior. Delusion develops in a person in the context of a close relationship with someone who has an already established delusion; Similar content to delusion; Not due to another mental disorder. Not due to medical, neurological or substance-induced disorder

Excerpt from *The Modern Alchemist*, by Miller and Miller:

Your identification with objects, your roles, other people, and your possessions may border on what is known as participation mystique. It is a way of being involved with externals to the point where they seem to exert a magical effect over you. If you use people or objects to mood-alter yourself, they possess you, and you can't possibly relate to rationally. You have literally invested your energy in something other than yourself...and have given a piece of yourself away.

Mutual projections by lovers can result in all sorts of folly and shared delusions. Frequently people fall in love with those who have traits they would like to actualize in themselves. Instead of manifesting that, we let the other carry those qualities and try to patch the hole in our wholeness. This counter-projection can result in the syndrome of folie a deux, or the "madness of two." This accounts for the "just us against the world" mentality. Any psychological deviation of one is condoned and reinforced in the other in a spiraling move away from consensus reality into isolation. A less radical version of this process happens for most who fall in love.

The delusion is usually within the realm of possibility and often is based on past common experience. Their ability to deal with reality is undermined in favor of an escape into romantic fantasy and self-justification. This is much easier for weak egos. Mutual projection is also the basis of personality cults, but the roles are simply switched to teacher and disciple as Platonic lovers. There is an unconscious fascination, an enchantment, which comes from seeing yourself reflected in your beloved, whether it is true or not.

Another example of this fascination or participation mystique is the creation of talismans. Talismans are objects you invest with seemingly magical powers to influence a situation. This is the basis of sympathetic magic. It accounts for the recent fad of using crystals as healing stones. It is fine if you use them to focus your creative imagination, but don't mistake the fact that it is your own investment of energy that brings the transformations rather than any inherent quality in the crystal. Belief systems perpetuate a mystery feeling that can lead to illusory convictions about the way things work.

When not of pathological character, shared folies still happen to us and are called "participation mystique" in Jungian psychology. They are the product of psychic contagion and when they are positive are the basis of the placebo effect, faith healings, shamanic healing, and psychotherapeutic healing.

There is an unconscious fascination which comes from seeing oneself reflected in the "other," whether the other contains this quality or not. It appears to contain it when we are under the influence of participation mystique. Another example is investing an object with "magical" powers to influence a situation, like a love charm or talisman. This type of thinking perpetuates an illusory conviction concerning "the ways things are."

As this fascination dissolves, the individual's attitudes and reactions to situations becomes freer and more objective. The projected contents "return" to their proper home in the psyche, and are realized on a conscious level. They are perceived as psychological reality, instead of physical reality. We are no longer at the mercy of the actions and moods of another person or the environment. The source of feelings is known to exist within ourselves. Participation mystique is the original unconscious condition of psychological ignorance.

The gods and demons in Jung's writings were not regarded as psychic projections of the unconscious, but as self-evident realities. In the Age of Enlightenment people "discovered" that the gods did not really exist, but were simply projections of our unconsciousness. Thus, they were promptly dismissed as lacking religious value, and deposed from their thrones.

But the corresponding psychological function was by no means ended by this over-rational analytical rejection. It was Uranus rejecting the children once again. The activity of the collective patterns was repressed into unconsciousness where it became mental and physical diseases, such as tumors and hysterical reactions.

Modern man has been poisoned by this surplus of libido or psychic energy which once was contained in the cult(ure) of the divine images.

Our conscious awareness can assimilate, understand and elaborate its relationship to projections of the unconscious contents. It can come to know various autonomous portions of the psyche as personified archetypes. All the archetypes are the generations of the primordial ancestor Uranus. All patterns come from the archetype of patterns descended from matter. These personifications appear as guides, demons, gods or goddesses, etc.

Failure to voluntarily acknowledge them may result in consciousness being overwhelmed by a somatic reaction or disturbance of the body. Or mental illness and disorientation may be the result of a flood of unconscious psychic contents.

Personification helps the conscious ego create a dialogue with these inner beings. It is the multiple consciousness form of I-Thou dialogue. We experience them as "Other" or "Not-I". Yet, they are a part of ourselves. These dynamic mythological images, when neglected, may lead to psychosis or physical death in extreme cases. They are psychological and behavioral imperatives.

Taking up a conscious relationship with them leads one out of the unconscious pitfalls of the original condition of participation mystique, where their influence is unduly exaggerated.

Further reading on Uranus in Jungian literature may be found in

1) *FATHERS AND MOTHERS*, James Hillman, Ed. "The Devouring Father," by Murray Stein, Spring Publications, Dallas, 197 .

2) "Uranus and Prometheus," *SPRING 1983*, Richard T. Tarnas, Spring Pub., Dallas, 1983.

SPIRITUAL MYTH

Uranus is a variation on the theme of "Sky Father," and shares this in common with Cronos and Zeus who are his descendants. As a sky father, he represents a spiritual impulse. The Greek creation myth shows the negative issuing into manifestation reflecting the Spirit in search of experience.

Chaos, the gaping maw of open space is a pure cosmic principle which has no god-form. Gaea, on the other hand, was represented as a primal woman of gigantic proportions. Uranus had no cult in Greece, even though Uranus and Gaea are considered the grandparents of the world. Uranus certainly wasn't a benevolent parent, perhaps indicating that the original spiritual impulse was reluctant to manifest at all, and didn't seem to like the idea of regeneration. Its tendency was to remain abstract, but its method of repressing itself created a reactionary revolutionary, which Uranus self-generated from his own pattern.

This revolution created the dimension of the experience of space and time, with several of its concomitant qualities, including absolute justice or karma, also termed natural consequences. This is known as the law of action and reaction, or thermodynamics. This furious expression of Cronos is not tempered by Mercy until the appearance of his offspring Zeus.

Thermodynamics (Cronos) and matter (Gaea) led to the manifest universe. Gaea also created the first race of gods, and gave birth to the first human. She contained within herself the gift of foretelling the future. She contains all the potentiality for manifestation, as is therefore a prophetess. Also she is the guardian of the sanctity of oaths, including the marriage oath. This is another arc of the relationship among polar opposites.

The spiritual myth which exemplifies the cosmological nature of Uranus is that of the ANCIENT OF DAYS. There are a few variations of form for this cosmic man, depending on the level of functioning in the creation. It has different names on different planes. The Most Ancient One, or Ancient of the Ancients creates and produces the essence of light (Zeus). This primordial Being, also known as the Vast or Great Countenance gives birth to the Lesser Countenance or primordial Man. The image is one of the Father of All Things, the Sacred Ancestor, "The White Head."

In the Hebrew text *THE ZOHAR* describes the ancient one as wearing white robes. His face is vast, luminous, and terrible. He sits on a throne of flaming light. The white light streaming from His face illumines four hundred thousand worlds. Thirteen thousand myriads of worlds come into light from His skull, which emanates a mysterious dew that has the power to awaken the spiritual dead into everlasting life. This "Great Face" or "Long Face" is that of the Aged of Aged who has been before the beginning. He generates the "Short Face" which is this Creation.

The hair and beard of this Ancient of Ancients extends to the uttermost parts of the universe. From His skull hang down a thousand myriad worlds, seven thousand and five hundred curling hairs which are not mingled lest confusion exist. In each curl are four hundred and ten locks of hair and these hairs radiate into four hundred and ten worlds. In the hollow of His skull is the supreme hidden Wisdom. His brain extends by the thirty-two paths of the Tree of Life. Thirteen fountains flow forth from His beard. His hands pour out the Mother and Father rays.

As the Ancient of Days, God issues from his concealment. The abyss of Deity is the body of Macroprosopus which gives birth to Microprosopus, the god-image in man. In the Qabala, the primal sphere Kether emanates forth from the vast ocean of spirit. Kether is called the which is *Limitless Light Which is Not* and also *the Fiery Darkness*. Kether is also identified as *Ain*, Nothingness -- the Absolute No-Thing and root of Every-thing. At some infinitesimal place between Zero and One, there appeared a slight excess of matter over anti-matter which created our universe.

This god-image of the *ANTHROPOS* has come back in mythic form as the scientific theory known as the Anthropic Principle, which alleges that the universe is a vast living being with intentionality. He is the cosmic counterpart of the living Earth, Gaea. Gaea could be corresponded with the theory of the universal dispersion of life by micro-organisms ubiquitous in deep space, Panspermia. This is not to say that these theories will weather scientific scrutiny, but that they are archetypal in content and context.

Our basic argument starts with a few very simple assumptions. We believe that anyone who accepts that the universe is "fine-tuned" for life would find it difficult not to accept these assumptions. But fine-tuning does not necessarily imply intelligence, consciousness nor divine intentionality behind it. They are:

a) Our universe exists and contains life.

b) Our universe is "life friendly," that is, the conditions in our universe (such as physical laws, etc.) permit or are compatible with life existing naturalistically.

c) Life cannot exist in a universe that is governed solely by naturalistic law unless that universe is "life-friendly."

The Archetype of the Anthropos still exerts such an influence on modern thought that it has been formalized in cosmology as the Anthropic Principle, even though there are numerous scientific arguments and theories against this persistent notion. anthropic arguments of this type have an honourable history from the 19th century, when the Earth could not be dated directly.

Our discussion of cosmology so far has leaned heavily on the Copernican principle that we are not privileged observers of the universe. However, there are some aspects of the subject for which this principle has to be discarded; as in quantum mechanics, we have to ask whether the mere presence of an observer influences the system under study.

At first sight, it may seem absurd to think of humanity influencing in any way the global properties of the universe, but the simple fact of our existence does turn out to have profound consequences. These ideas are given the label "anthropic", and we speak of the anthropic principle when discussing the universe in the context of the existence of observers. However, this is an area that generates controversy, and not everyone will agree on the degree of importance of anthropic ideas. See Barrow & Tipler (1986) for a thorough review of the subject.

Like religious schisms, the anthropic dogma comes in varying forms and degrees of elaboration. We can distinguish perhaps three sets of attitudes to anthropic reasoning: trivial, weak and strong anthropic principles. Here are some definitions, first from Barrow and Tipler:

Weak Anthropic Principle (WAP): The observed values of all physical and cosmological quantities are not equally probable but they take on values restricted

by the requirement that there exist sites where carbon-based life can evolve and by the requirements that the Universe be old enough for it to have already done so.

Strong Anthropic Principle (SAP): The Universe must have those properties which allow life to develop within it at some stage in its history. Because:

1. There exists one possible Universe 'designed' with the goal of generating and sustaining 'observers'. Or...
2. Observers are necessary to bring the Universe into being (Wheeler's Participatory Anthropic Principle (PAP)). Or...
3. An ensemble of other different universes is necessary for the existence of our Universe (which may be related to the Many-Worlds interpretation of quantum mechanics).

Final Anthropic Principle (FAP): Intelligent information-processing must come into existence in the Universe, and, once it comes into existence, it will never die out.

It appears as though we live in a special universe. Some quantities seem to be highly improbable values, for example, the flatness of the Universe is disturbing. Note that if some of the finely-balanced quantities were not finely-tuned then our Universe would have grossly different properties. The properties would in fact be so different that it is highly likely that life (as we know it) would not develop and be around to ask the question of why the Universe is special. That is, selection effects would say that it is only in universes where the conditions are right for life (thus pre-selecting certain universe) is it possible for the questions of specialness to be posed.

This statement and variants of this statement are the gist of the Anthropic Principle. Note that the Anthropic Principle is probably true and says that there is nothing mysterious about why our Universe is special. However, it does not rule out the possibility that there is a deeper level to our understanding of the Universe which makes our Universe the most probable universe from the plethora of all possible universes. This still may be true but is not required philosophically or scientifically.

One of the most startling developments to come from modern physics is that the universe, in some very fundamental way, seems to have been "designed" or "tuned" to produce life and consciousness. Actually, what physicists have discovered is that there are a large number of "coincidences" inherent in the fundamental laws and constants of nature. Every one of these coincidences or specific relationships between fundamental physical parameters is needed, or the evolution of life and consciousness as we know it could not have happened. The collection of these coincidences is an undisputed fact, and collectively, have come to be known as the "Anthropic Principle."

An excellent and complete analysis and of this principle, its historical background, the physical evidence for its acceptance, and resulting implications are provided in the *The Anthropic Cosmological Principle* by John D. Barrow and Frank J. Tipler (Oxford University Press). In the introduction they state, "Most perturbations of the

fundamental constants of Nature away from their actual numerical values lead to model worlds that are still-born, unable to generate observers and become cognizable. Usually, they allow neither nuclei, atoms nor stars to exist" (page 20).

And from an earlier paragraph supporting the same point they cite P. Davies and M. Rees, "For example, if the relative strengths of the nuclear and electromagnetic forces were to be slightly different then carbon atoms could not exist in Nature (Davies) and human physicists would not have evolved. Likewise, many of the global properties of the Universe, for instance the ratio of the number of photons to protons (Rees), must be found to lie within a very narrow range if cosmic conditions are to allow carbon-based life to arise" (page 5).

The barest statement of this fact is called the Weak Anthropic Principle (WAP), and essentially states that since we are here, the universe must have the properties, or coincidences, such that we could evolve. Although unquestioned and useful for making predictions about various aspects of the universe, the WAP offers no insight as to WHY the universe is this way. Some, based on their interpretation of quantum mechanics see a predominant role for the observer, and have gone so far as to suggest that observers are needed to bring the universe into existence. This version of the AP is called the Participatory Anthropic Principle (PAP).

There are obviously some issues here that would have to be explained because the universe got along just fine before we came to exist, and also does so in areas where we can't make any observations. Others, seeking a more substantial answer to why, have gone on to postulate the Strong Anthropic Principle (SAP), which states that in order for the universe to exist at all, it is somehow necessary for it to have these special properties. In other words, the universe must have been "constructed" this way, and could not have come into existence any other way. The Final Anthropic Principle (FAP) goes a step beyond the SAP and says that not only MUST life come into existence, but once it does, it will last forever.

Using the notion that energy can transform between radiation and matter, we can consider that consciousness may itself be another form of energy that has emerged through evolution. Conversely, the energy of the universe could have been completely in the form of consciousness priori to transforming into radiation and matter in the early universe. Joe and Dan Provenzano call this idea the "Holistic Anthropic Principle" (HAP).

Of course, the broken vase (reminiscent of the qabalistic "breaking of the vessels") is only an analogy and proves nothing about the universe in general. However, it is a thought worth pursuing. Perhaps consciousness is another "higher," more ordered form or state of energy, and suppose that the Big Bang was a "shattering" or "fragmenting" of energy in this higher state. Then the inherent properties of matter and energy which allow life and consciousness to appear are fundamental as remnants of a previous existence in an earlier state. Viewed in this light, we get a completely new insight into the why question by explaining how the universe could have come into being with the tendency to produce life and consciousness.

Furthermore, when you consider that, in general, it is very difficult to recover much of an original completeness or beauty when something shatters, the HAP even sheds some light on why we would expect consciousness to be so rare, vulnerable and subject to so many problems (or evils). None of the other versions of the AP sheds light on all of these aspects. Incidentally, the idea that we are somehow the result of a "playfulness," an "experiment," or even a "fall" from God and/or the spiritual world, and that we are groping to find our way back is an ancient and common idea to both Eastern and Western religions.

There are many theories in cosmology competing with even the most plausible Anthropic Principle. One of the newest competing theories is that of gravastars, which arguably replace the notion of blackholes, deep wells of cosmic nothingness. Black holes were first conceived in the early 1900s, long before the discovery of quantum physics, a revolutionary scientific field that describes the nature of many fundamental particles and forces.

The first black hole proponents were ignorant of quantum fluctuations in the universe that affect everything from light particles to gravity, Mottola and Mazur observed. "We are usually not aware of the quantum medium we are immersed in," Mottola writes in *New Scientist*, "like a fish in a calm pond who is not aware of all the incessant jiggling of water molecules." Without quantum mechanics, the early theorists made crucial mistakes in envisioning black holes and their relationship with space and time, the two say. As a consequence, astronomers have been forced to face bizarre paradoxes spawned by black hole theory.

For example, light photons would gain an infinite amount of energy when they reach an event horizon, according to classical theorists. But they ignore the gravitational effects of this unthinkable amount of energy. Mottola and Mazur think they have a better explanation for what happens to a collapsing star. Before a black hole could form, quantum effects would change space-time around an imploding giant, kicking off a radical phase transition akin to when liquid water becomes ice. The shift to a new state would lead to the formation of an exotic new object, the gravastar, a condensed bubble enveloped by a thin spherical shell of gravitational energy.

In a paper submitted to *Physical Review Letters*, Mottola and Mazur argue that gravastars are consistent with classical laws of physics but do not have embarrassing inconsistencies as do black holes. Moreover, from Earth, they would appear much the same as classical black holes. Therefore, those chaotic dense hot spots throughout the universe that astronomers consider indirect proof of black holes could just as well support the existence of gravastars, they say. Mottola and Mazur hope the gravastar will shed light on even the deepest mysteries of the universe. The weighty object could explain intense gamma ray bursts from the distant universe.

More boldly, they suggest the entire cosmos could itself be trapped inside a giant gravastar. Astronomers call the work of Mottola and Mazur everything from "outstandingly brilliant" to "unlikely." Perhaps it will take decades or longer for

anyone to know really. Emil Mottola of the Los Alamos National Laboratory in New Mexico and Pawel Mazur of the University of South Carolina in Columbia think gravastars are cold, dense shells supported by a springy, weird space inside. They'd look like black holes, lit only by the material raining down onto them from outside. In fact, they seem to fit all the observational evidence for the existence of black holes.

The result of a black hole is a "singularity" with infinite density, where the known laws of physics break down. The singularity's gravity would be so powerful it would be cloaked in an "event horizon", a boundary beyond which matter or light couldn't escape. The dramatic idea of a black hole, which would rip to shreds anyone caught inside it, fired the imaginations of scientists, artists and writers alike. But no one has ever rooted the drama in fact, and Einstein completely repudiated it.

We know there are compact objects millions of times as heavy as the Sun that hog the centers of galaxies. These black hole candidates give themselves away because hot stars, gas and dust spiraling toward them emit bright X-rays. But that doesn't mean there's a cataclysmic black hole in the vicinity; it could simply be a very massive object. The debate petered out decades ago but there's still no ironclad proof that black holes exist.

There are enough problems in black-hole theory itself to make their existence seem implausible to say the least. These problems stem from the fact that our Universe is actually very different from the one that Schwarzschild considered. If we're to produce a proper description of the Universe we live in, Einstein's classical theories need to be meshed together with what we know about the quantum laws governing the behavior of fundamental particles and fields.

Mazur and Mottola have been thinking about quantum gravity for nearly a decade. They began by examining the nature of "quantum fluctuations" in space, time and even in energy fields. Empty space, for example, is never really empty. On the tiniest scales, little particles are popping in and out of existence all the time, creating a seething, fluctuating fluid. "Like a fish in a calm pond, who is not aware of all the incessant jiggling of the water molecules, we are usually not aware of the quantum medium we are immersed in," Mottola said.

And they have found that quantum fluctuations in the electromagnetic fields that describe tiny things like photons can influence gravitational phenomena on the large scale—such as black holes. So, they reasoned, when early black hole theorists ignored quantum effects they were creating an unreal space-time.

When a star forms a black hole, all the unique information about the star -- its chemical composition, for instance -- appears to be squashed out of existence. Yet current theory suggests black holes have enormous entropy -- a billion, billion times that of the star that formed them. No one can fathom where all this extra entropy comes from or where it resides. "Where are all these zillions of states hiding in a black hole?" says Mottola. "It is quite literally incomprehensible." Black holes are a bag of contradictions that don't make a good case for their own existence at all.

Mazur and Mottola have shown that quantum effects can make space-time change into a new and curious state that would lead to the formation of a strange new object. That change is a phase transition, like liquid water turning into a solid block of ice. They believe that in the extreme conditions of a collapsing star, space-time undergoes a quantum version of a phase transition. The phenomenon is nothing new. The Nobel Prize for Physics in 2001 was awarded for the observation of just such an event in the lab: the transformation of a cloud of atoms into one huge "super-atom," a Bose-Einstein Condensate (BEC). This clump of atoms, which all share the same quantum state, forms at temperatures within a whisker of absolute zero.

When an event horizon is about to form around a collapsing star, Mazur and Mottola believe that the huge gravitational field distorts the quantum fluctuations in space-time. These fluctuations would become so huge they would trigger a radical change in space-time, very similar to the formation of a BEC. This would create a condensate bubble. It would be surrounded by a thin spherical shell composed of gravitational energy, a kind of stationary shock wave in space-time sitting exactly where the event horizon of a black hole would traditionally be. The formation of this condensate would radically alter the space-time inside the shell. According to Mazur and Mottola's calculations, it would exert an outward pressure. Because of this, infalling matter inside the shell would do a U-turn and head back out to the shell, while matter outside the shell would still rain down on it. What's exciting, they say, is that gravastars don't suffer any of the mathematical ailments of black holes.

There's no riotous singularity where the laws of physics break down. There's no event horizon to imprison light and matter. And the entropy of a gravastar would be much lower than that of any star that might collapse to form it, dodging the problem of excessive entropy that plagues black holes. Take a gravastar with a mass 50 times that of the Sun wouldn't emit any radiation, making it as black as any black hole would be. Marek Abramowicz, an expert on black holes at Gothenburg University in Sweden thinks they might explain gamma-ray bursts -- ultra-intense flashes of gamma radiation from a distant source that appear somewhere in the sky about once a day. The birth of a gravastar would be extraordinarily violent and might shed enough energy to account for gamma-ray bursts.

Three years ago, data from distant stellar explosions suggested that the expansion of the Universe is getting faster all the time (*New Scientist*, 11 April 1998, p 26). Many physicists ascribe this acceleration to a mysterious "dark energy" that gives space an outward pressure. Mottola says that if you scale the size of a gravastar up to around the size of the visible Universe, the pressure of the vacuum inside roughly matches the pressure that seems to be accelerating the expansion of the Universe.

So our Universe might be one big cosmic gravastar: a giant shell trapping the Milky Way and all the other galaxies we see. "We might be able to entertain the really radical notion that we -- and everything we see in the Universe -- could be inside such an object," Mottola speculates. A gravastar would differ from a black hole by shining more brightly, since matter falling onto one would be turned into radiation. Black holes would gobble all the matter, but a gravastar would let its energy escape.

All the same, Mottola and Mazur admit there are still unsolved issues with the formation of gravastars. "We must have a better idea of how this phase transition actually occurs in the gravitational collapse process," says Mottola. But if gravastars can weather the controversy, then maybe there'll no longer be any need for black holes -- maybe they really are pure fantasy. It wouldn't be the first time that Einstein's dazzling intuition has been proved correct. (Source: *New Scientist*, Cosmiverse Staff Writer). After all, the Fool *knows* nothing, and yet is the very image of Superconsciousness.

EXAMPLES

It is difficult to think of examples of Uranus that are not better accounted for under Cronos or Saturn, being closer to human behavior. However, as Uranus was founding father, he might have inspired the American Revolution, and our founding fathers. Negatively, repressive leadership such as Ayatola Khoumeni and Saddam Houssein.

KEYWORDS: Anthropos, Aquarian Conspiracy, New Age, revolutionist, cosmogony, superconscious, irrationality, non-linear determinism, occultism, sudden, unexpected, vision, originality, reform, set-backs, anti-authoritarian, disruption, personal expression, electromagnetism.

DIALOGUE WITH URANUS

Seek the counsel of Uranus about the effects on you of the Devouring Father complex. Perhaps it happened in your family that father swallowed up or superceded the needs of other personalities in the family. Or, maybe society has suppressed you through outworn paternalistic pressures.

The higher aspect of Uranian consciousness is known as cosmic consciousness or superconsciousness. When you imagine Uranus in profile at the center of a flaring galaxy, his hair and beard become cascades of stars, strewn through space in gigantic spiral arms. Become that image of vast Uranian being, experiencing universal consciousness for yourself. Express this awareness through a more fulfilling life.

Dialogue concerning your faith in Divinity. What is the primal basis of your feelings of security in life. Do you feel secure, even when it seems irrational in light of current events? Can you look at the panoply of past and future events as a wondrous gift of God?

URANUS IN YOUR LIFE

1. Spontaneity is linked with intuitive perception of divinity within. What is your perception of this force?
2. Do you take an interest in occultism, or the hidden matter of life?

3. Describe the extent of your spirit of adventure. Remember, divinity is the spirit of adventure, always working towards greater awareness and self-experience. Describe your experience of superconscious perception.

4. Have you had an visionary experience? Are you creative, progressive, intuitive, or original in your thinking? Do you follow vision with action?

5. Do you act according to your own inner promptings?

6. How do you facilitate letting your latent genius come to the fore?

7. Describe your popularity and influence with others.

8. How do you react when tested with unexpected set-backs and disappointments? How do you respond to accepting rules and regulations?

9. Did the Uranian force or consciousness ever *blow your mind* out of uncreative routines of action and thought, forcing you to establish a new way of being?

10. How do you accept disruption in your life? Do you tend toward emotional instability and tearing yourself down? How could you gain perspective?

11. Describe your inventiveness and originality as personal expression.

12. Are you open to new opportunities, new situations which break the monotony of daily routine, new fields to conquer, new heights to scale?

13. In what area of life are you playing *The Fool*, operating entirely on faith and trust? Where are you going? What are you feeling foolish about? What would be fun to do if you could do anything you wanted.?

*Hermes the Messenger, electrical charge!
Conveys hidden meanings, otherwise barred.*

CHAPTER I: THE MAGUS

HERMES

As Trump I, the *Magus* is the Initiator of the transformational process. The internal flow of archetypal processes is like a musical symphony. It is nonlinear, complex and dynamic. It is a flow of pure spontaneous creativity, unfolding possibilities. Individual archetypes are seen as the various instruments within that melody. While most are easily identified, Hermes remains the most vague to grasp and to truly understand.

He is the most diffuse because he is the translator, the magician, the shape-shifter, the trickster even liar, the chameleon. He is ithyphallic; his wayside shrines called '*herms*' glorified the penis in ancient times. Wearing an erect phallus fetish was believed to bring good luck. Exploring the creative consciousness flow is much like being in a foreign country. We simply do not speak the language. Alchemy and magick were the psychological languages of the past. Hermes acts as our communicator, a guide or mentor to deliver messages between gods and men, divine and mortal -- like a prototypical winged angel -- a psychopomp or soul-guide.

Since our attention is usually on the message, not the message-bringer, we seldom realize it is the magician who pulled the rabbit out of the hat. We lose the image of what Hermes is when he delivers the message. When we are immersed in the stream of consciousness, we forget that not only are we receiving a communication from a specific god, but Hermes's translation of that message is also present. And it is our individual reaction to that complex which forms the musical symphony.

His method of communications is through a system of correspondences. These acausal relationships are experienced as synchronicity. Synchronistic events are those subjective experiences that make up life's meaningful coincidences. Hermes is the magician who has the ability to cross dimensional boundaries, as a mediator between the human and the divine, the personal psyche and the unconscious.

His realm includes the physical, emotional, intellectual, and spiritual planes of consciousness. When considering Hermes, remember that "the medium is the message." He is the archetype of information theory--how information controls and patterns energy. He is the mentor of the information age.

As Tom Lyttle puts it, "*My higher-intelligence semantics... well it goes a little like this: Man is made in God's image, and while not equal to God can do everything Jesus did and more, so Jesus told all of us many times. So we are both higher-intelligence in real-time, plus HI echoing itself backwards in time, retrocausally. That way it seeds itself all ways across time as all potential. So we have feedback and feedforward in our physical neural-nets - our minds are only partly physical, however. The other parts of human consciousness, "mind-at-large" if you will... exist as orthogonal zip-files, in hyperspace...in dreamland.*

That is, Godhood is enfolded in each as coded-language/neural-net geometries. Some parts are physical, other parts hyperdimensional. We deconstruct, defrag, unzip, decode, decipher etc. and find the obvious - ourselves, then our higher-selves, then God, who has been sitting in our hearts waiting for us, all along, smiling."

Much the same information transduction process occurs in our lives when we translate ideas into action or live what we aspire to. We can manipulate our reality and harness our

energies, through concentration on purpose. Through this means we have the ability to change our desires into a new reality through skill, preparation, effort, persistence, commitment and integrity. We need to be aware where we are focusing our energy; what our objectives are; how we are communicating with others, and what we want others to see and believe. We need to let Spirit guide that process of unfolding potential.

The Egyptian Hermes Trismegistus was full of this metaphysical spiritual power. He is the godfather of all the Hermetic Arts, the mystic arts and occult powers, as well as science. He has power over language, writing, and signs like his predecessor, the Egyptian god, Thoth. The Hermetica included works on magic, alchemy, astrology, healing, gnosis, theurgy, ritual and philosophy. These texts were based on notions of sympathetic magic, that like substances sharing an essence could influence one another through resonance effects. Likewise the hypnotic and magnetic qualities of charismatic individuals can create rapport with others to influence them.

*It has been said (Mulholland, *The Art of Illusion*, 1944) that, "Magic is the pretended performance of those things which cannot be done. The success of a magician's simulation of doing the impossible depends upon misleading the minds of his audiences. This, in the main, is done by adding, to a performance, details of which the spectators are unaware, and leaving out others which they believe you have not left out. In short a performance of magic is largely a demonstration of the universal reliability of certain facts of psychology."*

Just as the trump number of the Magician is I, in Hermetic philosophy, God is One and the creator of all things which continue to depend on Him. Everything is part of God, and God is in everything, his creative activity continuing unceasingly. All things are one and the pleroma of being is indestructible. Divine powers knit together the energies of the sun, planets and stars, and they operate on all bodies, animate or inanimate. This is the notion of cosmic sympathy. This doctrine of sympathy applies to man in both body and spirit, in the magico-religious worldview of The Magus.

PHYSICAL FORM

It is well known that all mass is charged; thus everything is in one sense electricity. Hermes is the polarity charge on the zygote at the instant of fertilization. As pure information, Hermes is the DNA code, messenger RNA, translating from the virtual to the physical realms. He is the embryonic nervous system, and the electrical charge traveling through that nervous system.

Electrical signals mediate chemical changes in the body. Since the charge moving through the body is directly related to physical chemistry, Hermes is also the "chemical messenger." An excellent example of Hermes in this aspect is as a hormone. Hormones affect every aspect of human physiology, from growth to metabolism, organ functioning, sexuality, and fertility.

Personalities dominated by the perspective of Hermes seem to be interested in the hidden side of things, the enfolded or implicate aspect. Implicate comes from the Latin word *implicio*, to enfold or imply. It is that aspect of reality which lies behind the "veil" of

manifestation. These individuals see themselves as the carriers of the secret codes or lore, of things that are not on the surface.

Hermes, as the Trickster, has a dark side, like all archetypes. The behavior patterns of the Hermes-dominated person may lead into his opportunistic characteristic pursuits. Hermes rules merchants, thieves, and salespersons. Hermes is also the god of travelers who inspires an incurable wanderlust. He is the prime motivator behind compulsive questing, the search for something--the personal Holy Grail.

Another Hermetic role is to seek out and convey the hidden messages and meanings in synchronous events. These meaningful coincidences, used as a form of personal development (pathworking), serve as a form of metaphorical perception. It means seeking the hidden archetypal patterns in the apparent chaos of daily life. In this way, the Tree of Life with its paths, serves as an objective guide to the unconscious--a consciousness map of the deep psyche. Hermes is also the gods who brings revelations, whether through depth psychology or the interpretations of divinations such as *I Ching* or astrology.

Looking for the god in a disease, Hermes' style is seen in schizophrenia, as seen in the movie "*A Beautiful Mind*," about physicist John Nash. This style thrives on plural meanings, cryptic double-talk, in escaping definitions, and psychically detaching body parts. The dissociation aspect of "falling apart" makes possible a new style of reflection in the psyche--a change in attraction from one archetype to another.

Hermes' particular form of mysticism opens the doors to the transformation of mysticism into theurgy. It can degrade into thaumaturgy -- the attempt to influence or control the physical plane -- mundane magic. Then the master of the secret "names" himself takes on the exercise of power in the way described in the various magical and theurgical procedures of which this literature is full. There is a fine line between magic and mysticism, especially in the use of divine names in mystical prayers and magic operations -- the danger of slipping from "good, inward" mystical practices to "degraded, outward" magic is a constant threat which, to Scholem, must be avoided.

While the main goal of mysticism is an experience of another consciousness, the use of magical powers only reinforces the mystic/magician's relationship with mundane reality -- recall, that magic in this sense is called "Practical," as it has a practical use in everyday living -- e.g.: gaining wealth, love, health, and good crops. Who made these names important? Where do the words come from, and how are they calculated?

Magicians who claim to be "Kabbalists" often use the practices of gematria, notarikon, and temurah to calculate new words of power and angelic names. It would appear that the magicians believe that anyone who uses these techniques can be called a "Kabbalist". However, according to Scholem, these practices were rarely used in classical Kabbalah -- "What really deserves to be called Kabbalism has very little to do with these "Kabbalistic" practices" (Scholem, 1941; p. 100).

Nonetheless, such practices can be found in Kabbalistic documents. It is accepted magical doctrine that to know the name of a certain power, be it an angel, spirit (typically evil), or intelligence (typically good), is to control that power: "the 'real' name of a god or an idea

contains the essence of the god or the idea, and therefore enshrines its power. Using the name turns this power on automatically, the same way that pressing the light switch turns on the light" (Cavendish, 1967; p. 123). In a similar fashion, Crowley (1976) remarks that the names of God are really names for the forces of nature, which can then be used.

Specific occupations associated with Hermes are:

accountant
book seller
clerk
codebreaker
comedian
consultant
electrician
gypsy
hypnotist
journalist
linguist
magician
media
mentor
messenger
occultist
postmaster
programmer
psychologist
researcher
salesperson
secretary
spy
stamp collector
teacher
tekkie
telephone operator
thief
tourist
trader
translator
writer

EMOTIONAL IMAGE

Hermes is the god of boundaries; dreams take place in the boundaries between deep sleep and waking life. We turn to the god Hermes for our dream messages; he brings us these messages. In sleep the chaotic nonlinear, multiple consciousness dominates or awareness. Linear consciousness is asleep and benefits by the rejuvenating contact with the creative consciousness stream. It helps our adaptability and promotes our evolutionary development.

No matter the effort, the dream is always chaotic, clouded with ambiguity and the significance carried by symbols because of their multiple meanings. The dream always seems to carry multiple meanings which can never be unraveled by our normal consciousness. Dreams are not logical. Yet they can teach the waking ego something of a different perspective on ourselves, a perspective which contains an ironical humor.

The Hermetic viewpoint does not take a moral position in regard to the content of any given dream. Since Hermes embodies paradoxes such as good/evil simultaneously, no moral guidelines are available from dreams for the ego or for navigation in day-to-day life. The dream represents the "underworld," or unconsciousness of the dreamer. The ego's arbitrary moral views are an alien viewpoint in dreams. Morality is rooted in the belief system, and dreams originate in a much deeper level.

As a bisexual being, the Hermaphrodite represents the borderline in nature. The Hermaphrodite is an imaginal being. Hermes and his borderline nature is the place where sexuality and fantasy meet. He prompts therapeutic relationships where transference is the movement in life. He governs the change from one state of consciousness to another-- through synaptic impulse, through chemical mediation with neurotransmitters, and through magic.

As the god who presides over boundaries, Hermes is able to transcend them. He is therefore also the ruler of ceremonial Magick. In Magick, one transcends the limits of ordinary consciousness and communes with various forms of divine consciousness. The identification with a given energy is accomplished by a three-fold ritual.

- 1). Separation from the profane or ordinary state of consciousness. Dissolution of the ordinary state of consciousness.
- 2). The transition stage, or twilight zone which lies between. Creative or chaotic consciousness.
- 3). The new order or perception of reality which occurs in the sacred time of the soul. Identification with an enhanced sense of self, greater well-being.

Hermes is the lord of boundaries, or doorways, the threshold or liminal area. The inbetween, or twilight zone, in enables a state of receptivity to become established. It allows an emptying process, a letting go. Ritual acts reawaken deep layers of the psyche. This brings the mythological or archetypal ideas back to memory.

Though the basic, or original forms of Magick and schizophrenic fantasy (wish fulfillment) spring from the same roots, they are not synonymous. Magick is, in general, the transition from passivity to activity. The Will is essential. Realistic action does not follow schizophrenic magic or magical thinking. The fantasy is a substitute for action. In lower forms of magic, practiced for personal gain or ego gratification or power, the ego is either weak or absent, or over-inflated. In ceremonial Magick there is a conscious effort directed at self-transformation, by harmonizing conscious and unconscious cycles or rhythms.

Writing was originally a form of magic, an epiphany with the god and secret of the priests. It is perhaps mankind's most far-reaching creation, taking almost an infinite variety of

forms. Many societies have created their own forms of conventional visible marks linked to spoken language. No other invention but the wheel has had such a lasting impact.

Much of its power comes from its flexibility. But the purpose of writing remains unchanged: to convey meaning from mundane to profound. It is a potent form of artistic and political expression. We use it to combat loneliness and establish our sense of self. Aristotle called it a way to express the "affections of the soul." Writing about feelings can alleviate depression, boost the immune system, and lower blood pressure. To write, you must work methodically, forming your thoughts to lead the reader toward your conclusions. However, writing can also distort or mislead.

Writing has immortalized the events and persons of history, religion, passion, genius, art, and science. It has tremendous evocative power to express everything from the practicalities of everyday life to the most exalted human emotions. In ancient times, alphabets were alphanumeric, standing for both letters and numbers. Sacred letters could "add up" to a meta-meaning shared with other words of the same number. Alphabets changed the way people thought, leading to formal logic, theoretical science and the concept of linear time.

Hermes is the god who rules technological acumen, and his latest incarnation is in our computer-driven society. He is the silicon chip, the electrical impulse, the fantasy of the cybernaut and cyborg. He is the computer whiz, the programmer, the tekkie. But he is still the motivating archetype behind all the sciences--the quest to unravel and control the hidden secrets of nature and the physical universe. He also governs the mysteries of the mind--the science of parapsychology, which inhabits the borderline between "hard" sciences and the occult.

These modern fields all have their own arcane rituals. This is an exciting field of study that may turn ritual studies, indeed all social sciences, in new directions. The ritual theorists that are already incorporating brain science into their work generally rely on a very small circle of researchers and writers: people like Eugene d'Aquili, Charles Laughlin, John McManus, and Barbara Lex who have called their field of study biogenetic structuralism.

"Biogenetic structuralism" is an unfortunately complicated name for a promising line of inquiry that seeks to apply knowledge of the evolution and structure of the human body to various human or cultural behaviors. It has particularly focused upon ritual and religious experience to demonstrate its methods, which is not unexpected given the strong influence of structuralism on ritual studies in general and the centrality of ritual and religion in most human cultures. Even though hampered by an unwieldy name and method, ritual theorists are beginning to pay attention to the interesting contributions the field seeks to make. Along with performance theory, Ron Grimes has called biogenetic structuralism one of the "most promising theoretical currents regarding ritual." Biogenetic structuralism seeks a holistic understanding of the universe as it presents itself to the mind through *experience* and is comprehended at the theoretical level through the activities of *science*.

Charles Laughlin echoes the interdisciplinary nature of the field, noting that it has sought to take into account "all reasonable sources of data about human consciousness and culture," but specifically, anthropology, psychology, and the neurosciences. He adds that it

also has sought to be "non-dualistic in modeling mind and body" and non-reductionistic. That is, it argued that culturally universal, invariant structures of language, time and space, dreams, feelings, and some psychopathologies arise from brain structures that are the product of human evolution.

To the classic Levi-Strauss/Chomski idea of the existence of "deep structure" within the unconscious that affects human cognition and behavior, they therefore add that these structures are related to specific parts or neural pathways in the brain itself.¹² The human brain is genetically predisposed to organize its experience in particular ways and to develop along predictable paths in a process they called "neurognosis." In a central chapter of *The Spectrum of Ritual*, "The Neurobiology of Myth and Ritual," d'Aquili and Laughlin outlined a basic position that would be elaborated upon in other places, especially the 1999 book by d'Aquili and Newberg, *The Mystical Mind*.

Briefly, the d'Aquili/Laughlin article asserted that ritual accomplishes two important biological feats. First, it coordinates the neural systems and functions of ritual participants to allow for group action. Ritual behavior for most species seems to be a way of overcoming social distance between individuals so that they can coordinate their activity in a way that would help the species survive. Mating rituals are the most obvious example of this, but ritual activity before coordinated group attacks or hunts are also common. Wolf packs go through ceremonial tail-wagging sessions and group howls, and ritual aggression among primates establishes social order and rank for possible battle.

The rhythmic and repetitious nature of ritual stimulation, through ear, eye, or bodily motion, increases a sense of unity of purpose between individuals. Further, it leads to coordinated arousal or discharge of the brain's limbic system, leading to a sense of profound unity within the participants. The second biological achievement of ritual is that it causes cognitive development or socialization within the individual organism. Ritual is "a mechanism for entraining and transforming the structure of the neuromotor subsystems in the developing organism." In short, it teaches the younger members of the species what is important and how to behave.

Tom Driver described humans well when he called us "ritualizing animals." Like other animals, humans have evolved to enact ritualizations, both, "to give stability to our behaviors and to serve as vehicles of communication." We share this tendency with bees that dance, peacocks that display, and whales that breach and slap their flukes. Indeed, there is evidence that the domestic dog developed its ritualizations to exploit the human need for a working companion. So ritualizing is evolutionarily adaptive for many animals, and none more than the human animal. But human rituals are unique in that they seem to be invariably connected with myth. How do such myths arise in the human brain? What is their adaptive significance and why do we relate them so closely with our ritual behavior?

Myths, according to d'Aquili, present themselves as systems of antinomies, or opposites: heaven/hell, good/evil, life/death, because of a basic function of the brain that he calls the "binary operator." This function abstracts qualities of things and arranges them as pairs of opposites, or dyads, whose meaning is intimately related to its partner. He conjectures that it is located on the inferior parietal lobe of the dominant side, and is simply one way

that the mind seeks to understand the world. Myths play upon these antinomies and propose solutions to them.

So, we create myths to satisfy our need to understand our environment and to give us some sense of control over it, or at least an understood place within it. A given myth has stability (is an enduring structure of relationships of meaning) because it "is adaptive psychophysiologically for an individual or social group."

But understanding alone is not adaptive enough. Like other animals we seek to adapt ourselves physically to the environments in which we live. Therefore we need a way to make the myth real to us, and that is the fundamental reason why we connect ritual to our myths. One way of describing rituals, then, is that they are motor actions that seek to enact the reality of the mythic structure of meaning our brains instinctually produce. This explanation seems similar to Grimes' ritual mode of "magic," or ritual as a "means to an end" and is a common anthropological explanation for the rise of ritual and religion in human history

D'Aquili and Laughlin report research that shows that when either the arousal or quiescent system is maximally stimulated it results in a "spillover effect" or a stimulation of the other system. That is, experts in meditation may experience a "rush" or a release of energy during a hyperquiescent state. From the other side, those who engage in rhythmic rituals that engage the arousal system, such as energetic dancing and singing, may experience states of bliss, tranquility, and oneness with others. Hyperarousal and hyperquiescent states seem to stimulate the limbic system, which regulates our emotions. Hence, these states are experienced as being emotionally intense, and often pleasurable.

It is also during these "spillover" experiences that the paradoxes presented to the brain through myth become resolved by the simultaneous functioning of both hemispheres of the brain. In ritual stimulation of the arousal system, for example, the presentation of what is an unresolvable logical problem in the left brain (the wafer is both bread and the Body of Christ), is experienced as unified in the holistic operation of the right brain.

Ritual participants therefore may experience a resolution of the problems presented by the myth and a deep unity with other participants: "The simultaneous strong discharge of both parts of the autonomic nervous system creates a state that consists not only of a pleasurable sensation, but, also, under proper conditions, a sense of union with conspecifics and a blurring of cognitive boundaries." Similarly, those who engage in meditation may report that they experience resolution of paradoxes during some meditative states, hence the famous use of such paradoxes by Zen practitioners.

Both meditation and ritual can lead to the spillover effect and the simultaneous discharge of the arousal and quiescent systems. But they come at the experience from different directions. Meditation begins with the quiescent system and by its hyperactivation can achieve spillover into the arousal system (from trophotropic to ergotropic). Ritual approaches from the opposite system (from ergotropic to trophotropic).

In summary, according to biogenetic structural analysis, humans do ritual for the same reasons other animals do them: to diminish distance between other members of the species,

to coordinate group action, socialize their young, and communicate status and social structure. What is unique about human ritualizing is its connection to the human propensity to create myths. Myths themselves contain logical or story resolutions to the paradoxes of our lives, but do not solve the problem existentially because they remain only as logical or left-brain solutions.

D'Aquili and other biogenetic structuralists have countered that ritual, in fact, does work effectively for us because it brings mythical paradoxes and unsolved problems to resolution through excitation of neurological processes by motor activity. The myths become experienced fact. Because such a resolution promotes a sense of unity with others and is a pleasurable experience, it is highly adaptive for humans who are trying to make their way in the world.

The point for ritual theorists and liturgists is that we are in an age when science is putting forth plausible, if not exhaustive, accounts of the rise of religion and ritual. Frankly, in many cases, they are doing much better public theology of ritual than we are, if by that you mean making a persuasive case for the continued meaning and power of religious ritual in the future of the human species. It seems inevitable that sociobiology, neurophysiology, and evolutionary theory will continue to open up new questions and tools for analysis of our rites. Human religious ritual behavior is one of the many areas where, as Stephen Gould describes, science and religion, "belly right up to each other, and interdigitate in the most intimate and complex manner."

Nor is human religious experience or ritual behavior reducible to an explanation of neuron pathways. We may confidently say, as Crick does about the soul, that there is no ritual behavior or religious experience that somehow floats above the physicality of our brains ("metaphysical news from nowhere," as Don Saliers has been heard to say). But the interplay in ritual of brain physiology, cultural evolution, local religious traditions, group experiences, individual interpretations and emotions, makes the description of any given ritual event a highly complex matter, necessarily involving many fields and specialties. Because ritual is so complex a matter and reaches so deeply into all the levels of our humanity—biological, cultural, social, and religious—any method that tends toward black/white language should be suspect. In the end, gray matters.

Specific keywords associated with Hermes are:

codes
humor
trickster
perceptive
prana
self-expression
bi-sexuality
liar
luck
association
communication
organization

**quicksilver
cognition
systems
neurolinguistic programming
nerve tissue
changeable
interpretation
relatedness
nervous energy
adapting
restless**

INTELLECTUAL IDEA

Hermetic philosophy is concerned with secret doctrines, such as alchemy, Magick, and depth psychology. Hermeneutics is the science of interpreting the scriptures, so it isn't very surprising to see Hermes identified with the creative Logos, the messenger with The Word.

Logically, he is the law of reason, being the Word. Hermes is also the condition of its utterance. Because he is duality, he can represent both truth and falsehood, wisdom and folly. Hermes is the trickster in that if he can not attain his ends by fair means, he does it by foul.

As stated earlier, falling apart makes possible a new style of reflection in the psyche, as the old outworn rigidities dissolve and flow is re-established. Hermes as Mercury moves among the multiple parts. He is also a cheat who can deceive with half-truths. Sometimes truths are even harder to see through, especially paradoxes.

Hermes is an interpreter; understanding is never absolute. It always requires interpretation. He bridges the unconscious condition that produces myth, symbols, and metaphors to the conscious mind through this interpretation. The images are to be left free of moral judgements.

If Hermes is the only appointed messenger to Hades, then he provides his guidance also within the psychology of the Underworld. Hermes helps us relate to the difficult, frightening, pathological, and complex part of our psyche. He can in this way also help us interpret depression. This forms the basis of psychological analysis.

Hermeneutics is a branch of philosophy. It is the science and art of interpretation, especially of spiritual texts. In ancient Egypt the invention of writing was ascribed to the corresponding deity Thoth, known in Greece as Hermes, and Rome as Mercury.

Hans-Georg Gadamer is a German philosopher who studied with Heidegger but developed the theory that language, not time and culture, determines consciousness. Gadamer only came to prominence as a philosopher with the publication of Truth And Method in 1960; and his role is best seen as part of the postwar rehabilitation of German philosophy.

Academic philosophy in 20th-century Germany falls into two distinct phases. The first half of the century was fascinated by the idea of reason as something historical. It was to be

understood not as some neutral instrument, equally available to all thinking creatures, and subject to universal rules accessible to all, but as being rooted in the particular circumstances of time or culture. Heidegger's celebrated notion of Dasein (existence, but - literally - "being here") was a revolt against the "analytical" traditions of the late 19th century and the thought that the truths described by philosophy were indifferently available to all people, whether "here" (that is, part of this culture) or not.

Gadamer withdraws from the extreme standpoint of prewar existentialism - that Being is fixed by historical and cultural circumstance, replacing this ontological radicalism with a theory of language. For him, Being is not constituted as such by race and nationality, but, in a celebrated dictum: "Being that can be understood is language." If I have no word for something, it does not "exist" for me, so existence, or failure to exist, happens within language. Without language, there is no understanding, and language is a product of history and culture.

According to Gadamer, language is a historical phenomenon for two reasons. One is practical. Language is about communication. It is about transferring, aggregating and processing information. The ability of language to perform these functions depends on the skill with which its users understand each other in any particular case. Language determines consciousness; and this determination depends on how well people have communicated. "Hermeneutics", for Gadamer, means "understanding" in this concrete sense. One aspect of this, for his own work, was a renewed emphasis on rhetoric as the discipline of making language function in practice. Another aspect is his famous model of reasoning as dialogue. Language's second historical characteristic is that it articulates cultural identities.

Gadamer shares the existentialist suspicion of projects which purport to determine truths and values by means of abstract calculation. As far as values are concerned, we inevitably start off in the historical "here" in some way we cannot further analyse. In that respect, as Gadamer argues, evaluative (moral or artistic) judgments are quite properly "prejudices" (Vor-urteile, "pre-judgments"). This is not a bad thing, for, as long as we recognise what is happening, we can start to engage in the hermeneutic dialogue which language offers to us, and so overcome the limitations of our own starting position and move towards a richer understanding of ourselves and others.

Typically, this takes place in more or less formalised hermeneutic "dialogues" which strive to reconcile inconsistent evaluative positions. Major examples would be discussion about the value of works of art, and the legal discourse of the courtroom.

Gadamer's theories bore most philosophical fruit in the 60s and 70s, not least in exchanges with other "linguistic" theories such as that of Jürgen Habermas. Subsequently, Gadamer's academic influence has become largely confined to the cultural disciplines; in Germany itself, the predominant analytical tone has now more or less extinguished philosophical historicism. (Julian Roberts, *Guardian*, Monday March 18, 2002).

Jung, who was perhaps influenced by this school, also extensively explored the realm of hermeneutics in analytical psychology, particularly in regard to alchemy. Polyani (1962) carried his ideas forward when he said: "*Heuristic passion is...the mainspring of*

originality...the force which impels us to abandon an accepted framework of interpretation and commit ourselves by the crossing of a logical gap, to the use of a new framework."
Heuristics is behind our current notion of "paradigm shift.

Polanyi goes on to say that, "*Having made a discovery, I shall never see the world again as before. My eyes have become different; I have made myself into a person seeing and thinking differently. I have crossed a gap, a heuristic gap, which lies between problem and discovery.*"

According to Umberto Eco, 'semiotics is concerned with everything that can be taken as a sign.' Semiotics is the study of signs which have a role in social life -- anything that 'stands for' something else.. Semiotics also has a correspondence with linguistics as well as Hermes and Hermetic philosophy. This transdisciplinary subject is difficult to define. Linguistics is only one branch of this general science.

In a sense every thought is a sign -- how meanings are made and reality maintained. Semiotics is concerned with *how* signs mean, not what words mean. Syntactics (or syntax) is the formal or structural relations between signs. Semiotics is often used to analyze texts. It explores various genres or mediums of communication from print to mass media to interpersonal communication. These are differences of channel and technology. Our multisensory experience is constrained by the medium involved; they give us different frameworks for representing our experiences. Media impose a dialogue with the materials and means of execution -- the use of the medium is expressive.

It refers not only to visual signs, including drawings, paintings and photographs, images, objects but also sound, musical sounds and gestures or body language, and media studies in general. It encompasses all these which form the content of ritual -- systems of signification. Semiotics searches for deep structures, the grammar of narrative, the relative positions of parts within a self-contained system, the use of signs in specific social situations, and the role of beliefs or ideologies. It is rarely quantitative or content analysis. It looks at structured wholes, the system of rules governing the 'discourse' involved in media texts and how semiotic *context* shapes meaning.

Semiotics represents a range of studies in art, literature, anthropology, mass media, linguistics, philosophy, psychology, sociology, and aesthetics. It is concerned with significance, linguistic and non-linguistic, intentional and unintentional communication. It explores modes of production of signs and meanings, how systems and codes are used, transformed or transgressed in social practice. Semiotics teaches us that reality is plastic, a subjective construction. It teaches us reality is a systems of signs. To decline such a study is to leave to others the control of the world of meanings which we inhabit (Chandler, <http://www.aber.ac.uk/media/Documents/S4B/sem01.html>).

Further Jungian readings on Hermes are:

GODS IN EVERY MAN, Jean Shinoda Bolin
HERMES AND HIS CHILDREN, Rafael Lopez-Pedraza
FACING THE GODS, James Hillman, ed.
HERMES, GUIDE OF SOULS, C. Kerényi

SPIRITUAL MYTH

How is it possible to know something, even about ourselves, that is radically new? Metaphors are one of the cognitive mechanisms that lead to the discovery and advancement of new theories. Often, in science, they appear spontaneously in dreams which are then applied in real time. Metaphor and analogy help us create mapping between two domains in a one-to-one correlation.

Metaphor still plays a role in the articulation of new scientific theory. In cognitive psychology, metaphors are drawn from the terminology of computer science, in transpersonal psychology from mysticism, in Consciousness Restructuring Process from Chaos Theory, QM, Holographic and other theories. Thus, science recycles its metaphors in self-referential strange loops.

Alchemists made use of symbolic metaphors, but ascribed causal powers to metaphorical similarities, (creating the so-called "doctrine of signatures.'). In this way they tried to satisfy their wish to manipulate nature rather than know it. But, *metaphors may be nature*, our nature; or certainly phenomenological expressions of our existential nature. They provide a reference point without defining reality.

The problem becomes not one of how *to know* something radically new, but how *to learn* something radically new. Thus metaphors are instructive. They are a central Way of leaping the epistemological chasm between old and new knowledge, old and new ways of essential being. Metaphors help us make this leap. They help us enter a problematic situation in order to solve it, to explore it, and explore the world restructured by the metaphor.

We can tap the source of creativity, healing and holistic restructuring through imagination and metaphor. The possibilities for concepts and for thought are shaped in very special ways by both the body and the brain that evolved to control it, especially the sensory-motor system. Conceptual metaphors appear to be neural maps that link sensory-motor domains in the brain to regions where more abstract reasoning is done. This allows sensory-motor structures to play a role in abstract reason (Lakoff, 1999).

The mind-body split or dualism vanishes when bodily control mechanisms are being used in abstract reasoning. Conceptual metaphorical mappings are not primarily matters of language, they are part of our conceptual systems, cross-domain mappings, allowing us to use sensory-motor concepts and reasoning in the service of abstract reason and holistic perception. This metaphorical mapping ability is automatically acquired unconsciously in our everyday functioning in the world.

In fact, when metaphors are synchronistic, emergent, spontaneous, self-organizing expressions of our dynamic stream of consciousness, they are an imaginal encoding of information that bridges the domains of conscious and unconscious worlds, material and transpersonal realms. Such metaphors can be deeply transformative--more than mere language, a technology for changing our behaviors, feelings, thoughts, and beliefs. Intentional contact and immersion in these metaphors can transform our spirit and soul.

How can we know or describe anything about the changes we have not yet experienced, change that by universal consensus takes us beyond the realm of everyday reality, for

which our words and concepts have been fashioned? Metaphors contain a subtle communication by containing meaning in a delicate net of imagery. In psychotherapy and mysticism, both, it is characteristic of the Self to speak to the ego-personality in the language of myth and metaphor. It allows us to grasp some image of that which remains as-yet-unknown.

The mystical and religious literature of East and West and the secret oral traditions of esoteric spiritual schools have used myths, parables, similes, symbols and metaphors to allude to that strange process that somehow changes or transforms our deepest selves. This is the essence of the Hermetic process.

We realize that we must rely on the reports of those who have gone ahead, who have explored further, who have seen and understood more, and who come back and say, "its *like* this...", "its *as if*..." Metaphor best expresses the as if realm of direct experience which cannot be describe directly. Classical metaphors are those which are used and understood crossculturally.

Classical metaphors of transformation are embodied in the primordial wisdom traditions. Though they have used many stories and parables, at least ten themes seem to be recurrent enough to be considered "classical" metaphors of transformation within the meditation tradition. They include the following dynamic transformations of lifestyle, soul and spirit:

1. dream sleep to awakening;
2. illusion to realization;
3. darkness (or blindness) to enlightenment;
4. imprisonment to liberation;
5. fragmentation to wholeness (unifying);
6. separation to oneness (unifying);
7. journey to destination (arriving);
8. being in exile to coming home (returning);
9. from seed to flowering or fruiting plant or tree (unfolding);
10. from death to rebirth (renewal, resurrection).

Metaphors are also strongly related to process-oriented psychotherapy and immersion in the stream of consciousness [itself a metaphor]. The notion and phenomenon of metaphor raises as many questions as it answers. Metaphors do not directly describe perceptual reality, but its language helps us imagine an "as if" reality.

For example, in Metaphor Therapy (Grove) we ask what an experience is like. The replies about the nature of feelings and traumas come automatically couched in somato-sensory metaphor: "like a rock on my chest, like a stab in the back, it leaves me feeling breathless, disembodied." Following the 'trail' we might ask, "Disembodied like *what*?" "Like a cloud, like smoke, like a vaporous nothingness"... The metaphorical possibilities or replies are virtually endless. They embody that which is still unknown and possibly unknowable, yet explorable through imagery and dialogue.

Metaphor is an artifact of language--saying this to mean that. They function as tools. That leads us to suspect it is a technology. As such, it is an aid to understanding. Metaphor

represents the convergence of figurative language, imagination and consciousness. There is a fundamental distinction between literal and metaphorical language.

John Searle, in his well-known essay *Metaphor* asserts that there is no semantic difference between metaphoric expression and literal, because "sentence and words have only the meaning that they have...Metaphorical meaning is always speaker's utterance meaning." Even poetic metaphors can muddle or clarify comprehension by distorting truth conditions. You say one thing to mean something else. So talking of metaphor as a kind of meaning may be false.

Yet, the role of conscious and unconscious processes in metaphor production and interpretation is ubiquitous. The role of "seeing as" permeates the development of consciousness. It reflects interactions between imagination, perception and cognition; how bodily and neural processes create and constrain imagination. Language, concept and world are the three realms of metaphor which is a mode of cognition.

But metaphors are events, not objects. And generative-metaphors can be viewed as problem-setting scenes and problem-solving situations. [Tacit generative metaphors may underlie our perceptual patterns much as personal and collective mythologies do].

Metaphors describe the internal structure of domains and how they are represented; the nature and organizational structure of information. They follow the information processing approach and propose a spatial representation in which local subspaces can be mapped into points of higher-order hyperspaces, and vice versa. The distance among concepts in these mental spaces is the main parameter for establishing the comprehensibility and aesthetic pleasure of metaphors.

Conceptual metaphors are more than semantic representations; they imply deep action, even though the locus of metaphor is thought. They directly reflect our metaphorical understanding of experience. This dual coding is based on more than a theoretical point of view based in imagery and verbal association.

Metaphor is not merely a superficial phenomenon of language, but shapes our judgments, and structures our language. Displaying many facets, metaphor pervades our everyday non-theoretical language. A metaphor is a holistic schema, a unifying framework that links a conceptual representation to its sensory and experiential ground. It embodies the gestalt and ecological properties of thought.

The network of underlying metaphors form a cognitive map, a web of concepts organized in terms which serve to ground the abstract. This cognitive topology, by which we impose structure on space, gives rise to spatial inferences and images. The subjective ego-centric properties of the individual are projected onto the world via this cognitive mapping. Even the same metaphor of 'time' can produce different interpretations, depending on the relative position of the observer within his cognitive topology.

Mental pictures and verbal processes meet in metaphor which promotes retrieval of images and verbal information that intersects with information aroused by the topic. Language is a conduit for this force by transferring or conveying thoughts and feelings to others.

Therefore what is literal *can* also be metaphorical; only the literal use of language can be true or false. These facts underlie or form the dynamical basis of all talk therapies.

George Lakoff and others have developed contemporary theories of metaphor. Undeniably, there are a great many irreducible metaphorical concepts in our everyday life which function in a systematic way and are grounded in our physical and cultural experience. But what is metaphor a metaphor for? How do metaphors *work*? How can we interpret two levels of understanding, novel and classical metaphors for comprehension and understanding? Can we learn without metaphors?

Epistemological metaphors help us relate "how we know what we know." They help us frame and describe our experience and its meaning at both the personal and collective levels. However, when do our epistemological metaphors become *more* than models? When we "know," how do we "know that we know," and "what is it *like*?" This bears on the confusion surrounding the *process* and *products* of linguistic understanding.

How do psychological processes figure in metaphor comprehension and memory? When we think in metaphors, do they create similarity, or state some pre-existing similarity? Do they produce new knowledge by projecting the "known" into an unknown domain? How do they emphasize, suppress, and organize features of cognition and awareness? How do we incorporate novelty through similar differences, and different similarities? What are the educational uses of metaphor? How can we tap directly into multidimensional metaphoric process?

What is beyond metaphor: what is the role in cognition and consciousness of synecdoche (inclusion) and metonymy (contiguity)? Metonymy is "the substitution of some attribute or suggestive word for what is actually meant." Metonymy describes extension involving Whole-Part relations in contrast to synecdoche, which involves Part-Whole relations. Or, it is a figurative extension of meaning involving concomitance. It is arguably possible to distinguish between metaphor and metonymy and between non-figurative implication and metonymy. The distinctions are cognitively based and have linguistic relevance, which improve our understanding of the dynamic role of language in consciousness.

Lakoff and Johnson (1980) claim that our conceptual system is largely metaphorical. But metonymy and synecdoche may be just as holistically basic. Expressions in simile are even more common than metaphor; both follow literalisms. They provide a context for our experience. Metonymy is implied meaning without restriction to the figurative uses of words. It is a figurative extension of meaning involving concomitance. Expressing what we *sense, feel, think* and *believe* about things and our existential condition, they form the ground of our synergetic cognition about self, others and universe.

Although Hades is the Lord of the Underworld, Hermes has some free access there. In contemporary terms this means he has access to the deepest recesses of our subconscious, and can therefore function as a psychoopomp or soul-guide. Both gods share a certain style, both covering their heads with a helmet of invisibility. This helmet hides their thoughts, and it also perceives the hidden thoughts of others. When it is their intention to become invisible, we cannot perceive "where their heads are at."

Even so, there remains a sense of a hidden watch over our innermost thoughts. Since their motives and goals remain hidden from our conscious perceptions, they have both been considered characteristically deceptive, unpredictable, and even frightening. "We must now accept these basic facts", as William Burroughs says, "Mankind exists through bestial acts".

Hermes is also the archetypal Trickster, either as a magician or as a clown. Since the way of descent into the underworld (unconscious) is the way of human frailty, what is weakness to the hero is the support-system of the clown. You may extract Hermetic guidance from your sensitive areas or psychological "wounds," if you can listen with an attentive ear.

To act out the part of the clown in the mundane world, however, is to be possessed by Hermes (to literalize it). The comic spirit is a soul-guide which remains an immortal pattern of existence. We do not become the guide, we are led by him. A healthy relationship to the Hermes attitude would be when we are able to accept and laugh at our shortcomings.

The superconscious side of Hermes is expressed spiritually in theurgy. Theurgy is Divine Activity, that of the Magus with his repertoire of magical operations and regalia. Whereas Thaumaturgy is magick used to make overt changes in the material world, Theurgy is magick used to make changes for personal evolution and spiritual growth. It is Divine magic, as opposed to mere thaumaturgy or sorcery. The appurtenances and technologies of theurgy include the altar, the magickal weapons representing the fundamental elements of creation, the operations, the incantations of secret names, etc. Its goal is apotheosis or, less ambitiously, the "knowledge and conversation of the Holy Guardian Angel" and the working of sublimation both of self and world.

Jewish scholar Gershom Scholem, in *Major Trends in Jewish Mysticism* (1941/1961) pp. 56-57 links language and theurgy when he says, "*In this context it is well to remember that the chief peculiarity of this form of mysticism, its emphasis on God's might and magnificence, opens the door to the transformation of mysticism into theurgy; there the master of the secret 'names' himself takes on the exercise of power in the way described in the various magical and theurgical procedures of which this literature is full. The language of the theurgist conforms to that of the Merkabah mystic. Both are dominated by the attributes of power and sublimity, not love or tenderness. It is entirely characteristic of the out-look of these believers that the theurgist, in adjuring the 'Prince of Divine Presence,' summons the archons as 'Princes of Majesty, Fear and Trembling.' Majesty, Fear and Trembling are indeed the key-words to this Open Sesame of religion.*"

"*The throne-world is to the Jewish mystic what the pleroma, the 'fullness', the bright sphere of divinity with its potencies, aeons, archons and dominions is to the Hellenistic and early Christian mystics of the period who appear in the history of religion under the names of Gnostics and Hermetics. The Jewish mystic, though guided by motives similar to theirs, nevertheless expresses his vision in terms of his own religious background. God's pre-existing throne, which embodies and exemplifies all forms of creation, is at once the goal and the theme of his mystical vision,*" (p. 44).

"*...In the Merkabah mysticism with which we are dealing here, the idea of the Shekhinah ['light of God'] and of God's immanence plays practically no part at all. The one passage in*

the Greater Hekhaloth' which has been adduced as proof of the existence of such conceptions is based on an obviously corrupt text. The fact is that the true and spontaneous feeling of the Merkabah mystic knows nothing of divine immanence; the infinite gulf between the soul and God the King on His throne is not even bridged at the climax of mystical ecstasy.

"Not only is there for the mystic no divine immanence, there is also almost no love of God. What there is of love in the relationship between the Jewish mystic and his God belongs to a much later period and has nothing to do with our present subject. Ecstasy there was and this fundamental experience must have been a source of religious inspiration, but we find no trace of a mystical union between the soul and God. Throughout there remained an almost exaggerated consciousness of God's other, nor does the identity and individuality of the mystic become blurred even at the height of ecstatic passion. The Creator and His creature remain apart, and nowhere is an attempt made to bridge the gulf between them or to blur the distinction. The mystic who in his ecstasy has passed through all the gates, braved all the dangers, now stands before the throne; he sees and hears - but that is all. All the emphasis is laid on the kingly aspect of God, not his creative one..." (pp. 55-56).

From magician Israel Regardie, we hear (The Meaning of Magic), "I suggest, then, that what the Magicians imply by the Astral Light is identical in the last resort with the Collective Unconscious of modern psychology. By means of the traditional Theurgic technique it is possible to contact consciously this plane, to experience its life and influence, converse with its elemental and angelic inhabitants so-called, and return here to normal consciousness with complete awareness and memory of that experience. This, naturally requires training. But so does every department of science.

Intensive preparation is demanded to fit one for critical observation, to provide one with the particular scientific alphabet required for its study, and to acquaint one with the researches of one's predecessors in that realm. No less should be expected of Magic--though all too often miracles are expected without due preparation. Anyone with even the slightest visual imagination may be so trained as to handle in but a short while the elementary magical technique, by which one is enabled to explore the subtler aspects of life and the universe. To transcend this "many-coloured world." To gain admittance to loftier realms of soul and spirit is quite another matter. One calling for other faculties and other powers, particularly a fiery devotion and an intense aspiration to the highest.

But with the latter, I am not just now concerned, even though it is the pulsing heart and more important aspect of Theurgy. It is with the scientific aspect of Magic, its more readily verifiable aspect, that I shall deal now. Elsewhere I have given as traditional attributions or associations to the sphere in question the following symbols. Its planet is said to be the Moon, its element Air, its number Nine, its colour purple--and also silver in another scale. The Pearl and Moonstone are its jewels, aloe its perfume, and its so-called divine name is Shaddai El Chai. The Archangel attributed to it is Gabriel, its choir of Angels are the four Kerubs ruling the elements, and its geomantic symbols are Populus and Via. The Tarot symbols appertaining to this sphere are those cards in each of the four suits numbered IX, and closely associated with it also is the twenty-first trump card entitled "The World." Here we find depicted a female form surrounded by a green garland. Actually this trump card is attributed to the thirty-second path of Saturn which connects the material plain to Yesod. How, now, arises the

question, how were these symbols and names obtained? What is their origin? And why are they so called attributions or correspondences of that Sephirah called the Foundation?

First of all, meditation will disclose the fact that all have a natural harmony and affinity one with the other--though not perhaps readily seen at the first glance. For example, the Moon is, to us, the fastest moving planet. It travels through all the twelve signs of the zodiac in about twenty-eight days. The idea of rapid change is there implicit, revealing the concept that the astral, while almost a timeless eternal deposit of world events, is nevertheless the origin of mutations and alterations which later influence the physical world--in the same way that impulse and thought must precede any action. Its element is air, a subtle all pervading medium--comparable to the astral light itself--a medium without which life is quite impossible. Nine is the end of all numbers, containing the preceding numbers within its own sum. It always remains itself when added to itself or multiplied, or subtracted, suggesting the fundamental all-inclusive self-sustaining nature of the realm.

What is still more important, however, from the scientific viewpoint is that they are things, names, and symbols actually perceived in that sphere by the skryer in the spirit-vision. As a matter of solid proof, one could quote numerous visions and astral journeys obtained by different people in different places at different times, in which all the traditional symbols appear in dynamic and in curiously dramatic and vital form.

Magic, as already remarked, is a practical system, and every part has been devised for experiment. Each part is capable of verification using appropriate methods. Each student may check it for himself, and thus discover the realities of his own divine nature as well as of the universe both within and without him, independently of what any other man may have written in books. We ask for experiment; demand it even, for the sake of mankind. We invite the earnest and sincere student to experiment for himself.

Sophisticated people, with a smattering of modern psychology, are likely to assume that Magic discloses nothing but the hidden depths of the Unconscious. They will say that these journeys are comparable to dream experiences which are referred to the working and dramatizing power of the subconscious mind. What difference does it make if the Qabalists named this sphere or type of consciousness the Foundation or Astral World and the moderns the Unconscious? The terms are cognate, and the symbols interchangeable; both mean the same thing, when all things are considered.

If Magic possesses weapons that are more penetrating and incisive than scientific ones, shall we reject them because Magic is the discredited house where they are stored? If magical methods reveal our secret selves more directly, and unlock the vast store of wisdom and power within our souls, showing us how to control them in ways that neither psycho-analysis nor any modern science has succeeded to do, should we not be foolish to reject its benefits?

Magic is a scientific method. It is a valid technique. Its approach to the universe and the secret of life's meaning is a legitimate one. If it assists us to become more familiar with what we really are, it is a Science--and a most important one. And to the scientist, whether he be psychologist or physicist, it will open up an entirely new universe of tremendous extent.

CULTURAL COUNTERPARTS

Mercury (Roman)
Thoth, or Tahuti (Egyptian)
Hanuman (Hindu)

CONTEMPORARY EXAMPLE

Carl Jung brought the messages of the Gods, and opened the way into the hidden depths of the unconscious, by writing voluminous collected works on his hermeneutic processes.

Dr. Leon R. Kass, who has taught philosophy and ethics at the University of Chicago since 1976, has long believed that science could threaten the human condition, both by undermining human self-esteem and by generating tools that might be misused, particularly by genetically reshaping the human mind or body.

Science has become so dangerous, in his view, because it is a powerful force, yet one that has been deliberately stripped of moral values by scientists who are trained to pursue the truth objectively. His gloomy criticisms of biomedical research have led him, though by a very different intellectual route, to the same restrictive views on many reproductive issues as are held by conservatives and opponents of abortion. He has opposed genetic screening that results in abortion and once called the *in vitro* fertilization methods of fertility clinics "a degradation of parenthood."

But he has long since changed his mind about *in vitro* fertilization, a technique that since 1978 has enabled about a million otherwise infertile couples to conceive. He is also at ease with the president's decision to allow some research on human embryonic stem cells, a policy announced August, 2001 at the same time as his appointment.

Dr. Kass's guarded enthusiasm for manipulations of human reproduction have made him the favorite moral philosopher of many conservatives. It has also put him at odds with some of his fellow bioethicists who view him as too willing to see the dark side of biomedical research and too pessimistic about society's ability to control it. He, in turn, has accused them of being too willing to give a free pass to whatever new treatment comes along.

In trying to inject some soul into science, Dr. Kass has found himself setting special value on the natural human cycle of birth, procreation and death. Just as he opposes most kinds of interference in reproduction, he is also against deliberate efforts to increase longevity. The proper goal of medicine, in his view, is to improve health, not to conquer death, which he sees as a necessary and desirable end. "The finitude of human life is a blessing for every human individual, whether he knows it or not," Dr. Kass has written.

With medicine's increasing success, he said, "anything is permitted if it saves life, cures diseases, prevents death." Dr. Kass argues that death at the natural time gives meaning and urgency to life and that immortality might not be quite the blessing it may seem: the new immortals, he says, "would not be like us at all."

DIALOGUE WITH HERMES

In a dimly lit room, sit with journal ready. Breathe quietly and deeply while contemplating the various attributes and correspondences of Hermes. These include such symbols as the

tarot trump, THE MAGUS, the color orange, the number 8, and his characteristic regalia (winged sandals, helmet of invisibility, the caduceus, the four magical weapons--wand, sword, cup and pentacle).

Hermes is a mischievous god, so we should be cautious when contacting him. If we presume to wield power over this figure of the Magus, the unconscious will react with a subtle attack on our ego. It deploys the "mana personality" aspect of the magician and he possesses our ego. This is a regression of consciousness. If the ego drops its pretentious claims to victory over the unconscious, then possession of your personality by the inner magician will automatically cease. Don't let this inner magician cast a spell over your ego.

The trick of interacting with him for a profoundly individual step forward is to *confess* our weakness in the face of the powers of the unconscious. When we don't oppose the unconscious, it is not provoked into attacking the personality and we find a new "mid-point" of experience which unites the opposites of the conscious and subconscious perspectives in a borderland awareness.

The hermetic approach to reality is not to take fantasy literally. We must rather learn to read the messages and symbols contained within events as signposts on our journey into our deepest self. Then we find inner harmony. The true value of the symbol is not found in analyzing it, but in adding further analogies to the one already supplied by the symbol.

Astrologer Robert Hand sheds light on the nature of the planetary Mercury:

On the highest level, Mercury is associated with the *Logos* or Word, the aspect of divinity in which the will of God is translated into the particular forms and structures of the created universe. Occultists have always considered the physical universe itself to be nothing more than a set of signs or a map corresponding to the divine nature. All knowledge and wisdom come through the *Logos*, whose symbol is Mercury. Thus, as long as the process of knowing is recognized to be less important than that which is to be known, Mercury is one of the highest symbols of all.

It is this aspect of Hermes we seek to contact, that which represents living Truth, not the lies or illusions of maya, or the shadow reality. When you can imagine Hermes's form in front of you, greet him and begin discussing your reasons for desiring a conscious contact with this inner figure. There is generally little trouble in getting the figure of Hermes to communicate. After all, words are his forte. Be sure to faithfully record both sides of the script. Then reread the dialogue when you are through and record your feelings and reactions to the encounter.

HERMES IN YOUR LIFE

1. Describe your most vivid recollection of a synchronous event in your life where inner and outer meanings seemed to mirror one another. What were the inner and outer circumstances? What were your feelings and attitudes toward this event? Did it influence your behavior later?

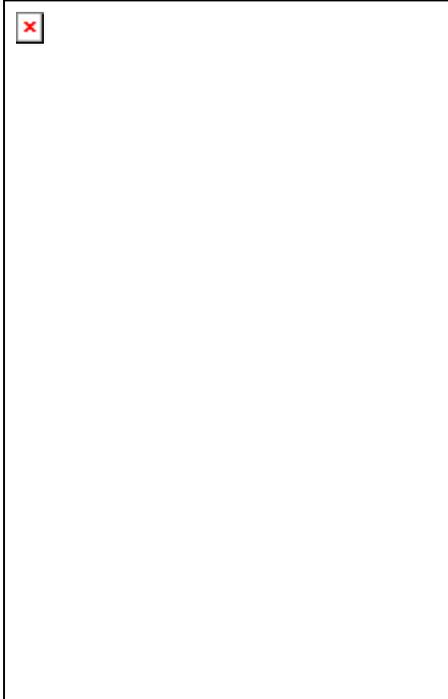
2. What is your attitude toward your dreams? Do you intentionally try to remember their messages in the morning? Have you ever kept a dream journal?

- 3. Have you ever had strong yearning to plumb the hidden mysteries of life? What discipline, or field of research, did you pursue toward this end, providing you followed through on the urge? If you've had the yearning, but haven't answered the call, why is this the case?**
- 4. What Hermetic occupations and preoccupations have you been involved in? These might include both academic science and occult science, journalism, or any jobs from the list. Be sure to consider what aspect of Hermes each represents.**
- 5. Have you ever experienced or witnessed any borderline phenomena like telepathy, clairvoyance, precognition, clairaudience, automatic writing, firewalking, etc.? How did your rational mind account for this experience? Did you begin seeking "reasons" or rationalizations for your experience?**
- 6. What sorts of hidden relationships might be revealed to you by keeping a journal of your inner and outer life? Do you think you can be psychologically honest with yourself, within the confines of the journal?**
- 7. Can you remember a period of your life where Hermes "initiated" you into a new awareness of the unconscious? If there is more than one instance, list them. Choose one to write about more fully. Did some person fulfill Hermes' role as initiator for you, or was it strictly an inner process?**
- 8. Have you ever studied one of the languages of symbolism such as tarot, astrology, alchemy, numerology, qabalah, or psychology? Did you apply this information toward gaining self-knowledge or just to fulfill your desires or predict the future?**
- 9. How do you think you might improve your communication skills both in outer and inner worlds? Are you learning the basics of the correspondence system, or symbolic language through which archetypes communicate in the deep mind?**
- 10. Do you ever seem to have a restless appetite for input and new experiences, or can you digest and integrate each event as it happens? Do you have a mind for detail or find a certain eloquence in ideas?**
- 11. You may have to think long and deep, but can you name a time when the shadow (or ape) in you tripped up the creative Magus in you? Has the shadow entwined you in maya (egotistical and emotional reactions), or a great illusion by controlling your behavior and thinking? What was the nature of this illusion and how did you overcome its repression of your true will to creativity?**
- 12. When synchronistic phenomena happen to us the inner Magus is communicating with us. When sudden or unexpected events happen he urges us to try to extract the spiritual meaning in them, to overlook the illusions of space, time, and the ego we have projected onto Reality. Try to notice spiritual aspects in your mundane life.**

*I am Artemis, Queen of Night;
Silver my bow, swift my flight!*

CHAPTER II: THE HIGH PRIESTESS

ARTEMIS (PARADOXICAL VIRGIN-MOTHER)



In the Tarot, Artemis is corresponded with both the Path 'Art' in her huntress nature, and 'High Priestess' in her solitary role as Virgin-Mother. In both cases she is associated with the Moon or Lunar Consciousness. She is Queen of the Night, Thea. In Rome she was Diana, in Egypt Isis, for the Jews Shekinah, to Moslems Sakina, in India Shakti, Prakriti and Maya, in Scandinavia Disa.

Artemis as Virgin-Mother expresses the archetype in its most exalted form. Paradoxically, she is Great Mother and Immaculate Virgin, the White Goddess. She is a variation of Celestial Queen, the deepest mysteries of nature. She personifies pure self-reliant Feminine power, with an esoteric knowledge of visible and invisible forces, mediumistic abilities. She embodies our submission to faith in destiny. She encourages us to seek our own mystical experiences in receptivity.

She represents our oneness with the universe, our essential "be-ing," with attention to natural rhythms and cycles. Paradoxically, she is Great Mother and simultaneously Immaculate Virgin, containing the entire cyclic process of nature and its relationship to time. She transcends time, living constantly in a co-temporaneous eternal Now.

her paths up the Middle Pillar exemplify the Way of experiential discovery of these mystic truths. Her way is through symbolic and meditational means -- through the senses and transcendence even beyond the mind, essentially through soul travel. Her Way is the

Middle Way, in tantric philosophy the opening of the Sushumna channel and the raising of Kundalini toward the Crown.

Union with her is consciousness of primal existential self, and our deepest ecological self. Beneath the layer of alienation from nature which our culture has created lies a deep resource we can tap which is fundamental wisdom about the unity of life. The Virgin helps us balance emotions and desires, directing our thoughts toward higher consciousness.

In ancient times she was known as Isis, who exemplified her impenetrable mystery by reiterating that, "*I am Isis; no man has lifted my veil.*" She is bathed in the Light and concealed by it; she is a multifaceted brilliant Solitaire. Thus she alludes to her virgin nature, that sense of wholeness within oneself, which is the source of wisdom. She is the secret powers of nature, Sophia, Shakti, Shekinah. This wisdom is deep ecology which reveals the way of living in balance through intuition. She is the natural Light of the Soul-illumination.

This archetype has reverberated down through history as the sublime matriarch known as the Great Mother. She is the possibility of bringing creative ideas to birth, to manifestation. She contemplates the possibility of various manifestations. The matriarchies of ancient times reflected societies intimately in touch with seasonal cycles and natural rhythms. We all yearn for "the mother." For some, this yearning takes a regressive self-destructive turn, which seeks a return to the unconscious oblivion of primal unity through drugs or insanity...in most cases certainly not a conscious choice.

The Great Mother is the All-Merciful one, who understands everything and forgives everything. In our fantasies at least, she always acts for the best, living only for others. The narcissistic personality wants her to exist only for him. And, of course, her great love is never truly understood. If we transmute our personalistic dependency on the archetype to a higher octave, we can access the spiritual dimension of this mystery.

Artemis is the goddess which represents the moon in its crescent phase. The crescent shape of the waxing moon symbolizes increasing power, the 'horns' represent growth and fertility. Her chief attribute is that she is a virgin, complete within herself. The mystic remains chaste or virgin in the sense of never being swayed by the events of life to give up spiritual aspiration--all other loves are secondary. Her growth is seen as the potential of fulfillment and fertility through fantasy or "fertile imagination."

There are two distinct forms of the goddess Artemis. She corresponds with both THE HIGH PRIESTESS (Trump II) and ART (Trump XIV). As The High Priestess, Artemis as Virgin-Mother, is the mediator of the highest mystical experiences. She is the way to true initiation. In mystical meditation we become receptive to divine grace. Her path reaches through and beyond the great Void, THE ABYSS, to the highest unitive states of consciousness. Mystical experience connects self-actualization with god-realization. She is the link between the archetypal and formative worlds, the matrix of eternal patterns with unique manifestations.

Both THE HIGH PRIESTESS and ART lie on the vertical axis of THE TREE OF LIFE. This vertical axis, known as The Middle Pillar, represents the quickest, most equilibrated

Path to mystical attainment. Artemis inhabits the extreme middle position, where the "medium" and the "amazon" represent poles of a single archetype. She is equivalent to the alchemical Anima Mundi, or World Soul. Artemis bridges our perceptions of the world by stimulating the imaginative faculty.

Only a particular facet of woman plays this role of mediator (or medium) to man concerning the mysteries of his own psyche. That woman has a role to play which is inherent in her nature. It is not the role of sharing his intellectual interests or providing his meals. It is also not becoming the mother of his children nor being his sexual partner.

The Artemisian role is to be a mediator to man of his creative inspirations, a channel where the riches of the unconscious can flow to him more easily than if she were not present. For women, she inspires also, from a depth beyond that of the "masculine" ego-consciousness.

It takes a high degree of focused consciousness in a woman for her to be able to observe what she is in fact doing instinctively. It is vitally important for a woman who is handling these images from the collective unconscious to have a strong ego to withstand the regressive pull of the unconscious. If she does not, she may be lost in the maze of the transcendent imagination, causing confusion to herself and those around her (sorceress' apprentice).

The mediumistic woman is an initiator. If she becomes devoted to a religious creed or spiritual science, she will put herself in its service. Alternatively, she may find herself expressing the spirit of an epoch. In every event, the spiritual woman is mediating archetypal images to consciousness.

PHYSICAL FORM

Biologically, Artemis might be seen as corresponding with an important endocrine gland--the Pituitary. As a master gland, controlling the others, the function of this gland is to regulate sex, reproductive cycles, and lactation. It also secretes serotonin, an important "trigger" to the diverse states of consciousness. Serotonin interacts with noradrenelin in the "pain-pleasure" cycle mediated by neurotransmitters in the brain.

Artemis is that element which allows images or visions from these altered states to be brought back into a daily context. She may be imagined in the symbolic relationship between the pituitary and pineal glands. Her "magickal son" is the light-sensitive pineal body or "Third Eye. This gland is implicated in the production of endogenous MDA, dubbed the Spirit Molecule (Strassman); it is responsible for the intrinsic perception of Light. This third eye is also implicated in the raising of Kundalini, the serpent power, responsible for awakening inner sight or in-sight.

There are three great stories in science. One of them is where the universe came from. One of them is where life came from. And the third is where we came from. We crave a deeper meaning to life, a more imaginative understanding of the mystery of existence. And out of that One Mystery, we have created many (*E Unus Pluribus*). Who are we; why are we here; where are we going? How did we get here; what is the mind for; why is it so big? How does the mind work; how do we know what we know? Why should the purely subjective aspect of experience exist at all? Why do we wonder?

Science readily admits there are many unsolved problems. Aspects of human transformation and subjective consciousness and where it comes from are deeply mysterious. In exploring these questions, science is not seeking to kill soul, but rather to provide an arena for imagination to systematically explore the realm of Spirit. Traditionally, theology itself is the science of God and his works while systematic theology is the systematizing of the findings of that science.

Three new sciences are now vividly rooting our mental processes in our biology, our seamlessly welded psychophysical self. Cognitive neuroscience attempts to relate thought, perception and emotion to the functioning of the brain's electrical, magnetic or metabolic signals. A second science, behavioral genetics shows there is a fascinating degree of specificity in our genome. Any adaptation is for the good of the genes which made that adaptation. The third science connecting mind with biology is evolutionary psychology which concerns why we have developed certain naturally-engineered organs connected to our brains.

Western science has traditionally considered matter as primary, but if you look at what the mystics report, you can also say that it's ultimately consciousness and awareness that are primary. Science has penetrated the quantum level of observation where events "function" as the source of a continual "creation" that sustains the universe at every instant. This has forever blurred any falacious distinction between mind and body (psyche and soma) or energy and matter.

Our consciousness emerges from the un-conceptualizable ground of existence as a tangled hierarchy of self-similar nested levels that contain a "strange loop" which leads to the unexpected result of inevitably bringing us back to our starting point. It is a model in which transcendence seems necessary. It brings up another question, "Dare I explore my inner world?" To explore or not to explore is a question we face every day. Who among us has not wondered what we would find if we began an earnest probe of the depths of our own being?

"In the province of the mind, what one believes to be true either is true or becomes true within the limits to be found experientially and experimentally. These limits are beliefs to be transcended." --John C. Lilly

Yet, few of us have peered deeply into the fundamental operations of the information-processing system we call "the mind." Our normal waking consciousness is but one special type of consciousness; sleep and dreams are another. There are other modes of conscious and subconscious experience that can enrich our lives. Visions, white light and the nirvanic raptures of religious ecstasy have been invested with ultimate value and devoutly sought. In exploring this field we are touching one of evolution's fundamental mechanisms of survival, for it is by knowledge that we orient ourselves in the world. Accurate knowledge of our two worlds--the so-called real world and the inner world--correctly informs us of the conditions we must cope with.

The scientific search for knowledge is the search for Truth and Beauty, appealing to both spirit and soul. To know facts is to survive; not to know, or to assess one's environment wrongly, is to lose the fight for survival. With the examination of the sources, nature, and

accuracy of our knowledge, we begin to develop *epistemic awareness*, a more informed understanding of what we know and don't know. We are faced with two serious epistemological problems: (1) How can we determine which facts are true? and, (2) How can we determine which facts are important? Our minds are the comparator and interface between the internal and external realities we navigate through.

Research suggests that some people may be genetically or temperamentally predisposed to mystical ability. Those most open to mystical experience tend also to be open to new experiences generally. They are usually creative and innovative, with a breadth of interests and a tolerance for ambiguity and may be fantasy-prone and tend to dissociate. Over-rational, controlled individuals will probably resist the experience. In mystical experience, the content of the mind fades, sensory awareness drops out, and you are left only with pure consciousness which does not need an object. It is not a mere byproduct of sensory action.

Brain scans of a large sampling of people lost in prayer or deep meditation reveal certain common neurological underpinnings which correlate with religious states from transcendence, to visions, to enlightenment and feelings of awe. *Attention* in the frontal lobe is indicated by activation in this area of the brain during meditation. When the parietal lobes quiet down, a person feels an expansive oneness with the universe or *cosmic unity*. For a mystical experience to occur, brain regions that orient us in space and mark the distinction between self and world must go quiet.

In order to feel that time, fear and self-consciousness have dissolved, certain brain circuits must be interrupted. Which ones? Activity in the amygdala, which monitors the environment for threats and registers fear, must be damped. Parietal-lobe circuits, which orient you in space and mark the sharp distinction between self and world, must go quiet. The orientation area requires sensory input to do its calculations. Intense meditation blocks the brain from forming a distinction between self and world. Frontal- and temporal-lobe circuits, which mark time and generate self-awareness, must disengage. When this happens what we think of as our 'higher' functions of self hood appear briefly to drop out, dissolve, or be deleted from consciousness.

Our response to *religious words* is mediated at the juncture of three lobes (parietal, frontal and temporal) and governs reaction to language. The "voice of God" probably emanates from electrical activity in the temporal lobes, important to speech perception. Inner speech is interpreted as originating outside the self. Broca's area, responsible for speech production switches on. Stress can influence one's ability to determine origin of a voice. The right anterior cingulate turns on whether a stimulus originates in the environment or is an auditory hallucination.

Hyperarousal by sensory stimuli, such as drumming, dancing or incantations, can amplify emotions and send the system into hyperdrive. The equilibrium of the hippocampus is overwritten, inhibiting the flow of signals between neurons. Certain regions are then deprived of neuronal inputs. When the orientation center is isolated with ritual and liturgy or meditation, the boundaries of the self begin to dissolve.

Sacred images are generated by the lower temporal which also responds to ritual imagery and is facilitated by prayer and meditation. *Religious emotions* originate from the middle

temporal lobe and are linked to emotional aspects of religious experience, such as joy and awe. Yet neural correlates don't mean that these experiences exist "only" in the brain or are merely illusory; they are associated with distinct neural activity. There is no way to distinguish if the brain *causes* these experiences, or is actually *perceiving* spiritual reality.

Religious mystics the world over make a common assertion: no one can understand a profound religious experience until he has himself experienced it. No amount of description with mere symbols can touch or reveal its true meaning. Schopenhauer once remarked that "*The exceptional man is like an archer who can strike a target other cannot, the genius is the one who can strike a target others cannot even see.*" The individual who lacks awareness of the depths and facets of the psyche is something less than whole, and considerably less that he could be. He is living a single-dimensional existence in a multidimensional psychic universe.

Theology has been defined as the science of God and his relations to the universe, (Thiessen, 1979). In the realm of systematic thought, the facts concerning God and his relations to the universe lead to theology; in the sphere of individual and collective life, they lead to religion. In other words, in theology we organize our thoughts concerning God and the universe, while in religion we express in attitudes and action the effects these thoughts have produced in us.

Both theology and philosophy seek a comprehensive world and life view, echoing the ancient dictum to "*Know Thyself.*" Theology does not merely begin with the belief in the existence of God, but also holds that he has graciously revealed himself. The theologian is irresistibly driven by God and the revelation he has made of himself. The possibility of theology grows out of two things: the revelation of God and the endowments of man, which are of two kinds: mental and spiritual.

Revelation is the act of God which discloses himself or communicates truth to the mind, and makes manifest that which could not be known in any other way. It may occur in a single instantaneous act, or extend over a long period of time. This communication and experiential Truth may be perceived by the human mind in varying degrees of fullness. These subjective experiences are the basis of primordial mysticism. God reveals himself and we are capable of apprehending spiritual revelation, which is immanent in the Creation, nature and our nature. That which is known about God is evident within us, for God makes it evident to us. Paul wrote, "*Since the creation of the world His invisible attributes, His eternal power and divine nature have been clearly seen,*" (Rom. 1:20).

History shows that the religious element of our nature is just as universal as the rational or social one. Religion or a belief system is categorized as one of the universals in culture. There are in man's belief everywhere, various forms of religious phenomena and awareness of the supernatural. Believers feels the existence of God is also necessary, in the sense that we cannot deny his existence without doing violence to the very laws of our nature. If we do deny it, the denial is forced and can only be temporary, just as the pendulum of a clock can be pushed off center by an internal or external force but will return to its original position once the pressure is removed. The "normal" belief in God or a spiritual force tends to return when we are not consciously under the influence of a false philosophy.

Assuming that God has revealed himself, we ask next, how does man come into possession of this revelation? To this we reply that neither the outer nor the inner world would disclose anything of God without the unique endowments of man, the natural capacity for spiritual experience. Science and Theology examine these endowments and their resulting phenomena from radically different models:



<p>1. Models are grounded in theories which influence observations. Discordant data is often called an anomaly rather than a falsification. Paradigm shifts have as much to do with psychology as logic and data because of the paradigm's frame of reference.</p> <p>2. Theory dominates in the form of laws rather than models.</p> <p>3. Empirical testing is used to verify models and hypotheses.</p> <p>4. No root-metaphor or original model is referred back to as primary guiding image; the process is emergent, self-organizing.</p> <p>5. The purpose of models is to discover new phenomena and explain how the modeled systems function, ontological, phenomenologically, existentially.</p> <p>6. There are few models in science and they are not related hierarchically nor are they all complementary such as the wave and particle models of light are.</p> <p>7. Models can be translated into mathematical formulae which make general statements about relationships.</p> <p>8. Relationships are primarily expressed in terms of quantity.</p> <p>9. Models primarily impact reason.</p>	<p>1. Models grounded in sacred stories/myths which are transmitted by a faith community informing human imagination with images and patterns for behavior. Sacred stories enacted in rituals, drama, rites. The model is the enduring structural component the myth or parable dramatizes.</p> <p>2. Models dominate theory. Doctrines (creation; redemption) are not translated into general laws.</p> <p>3. Data neither falsifies nor verifies the truth value of models. Exemplars express ultimate values.</p> <p>4. Personal deity is the root-metaphor relating to human beings and the natural world as source and transformer of both.</p> <p>5. Purpose of models is comprehension of all reality to provide an ordering and evaluating action from an ultimate perspective at the edge of being and knowing.</p> <p>6. Many models are related in complementary and hierarchical ways.</p> <p>7. Models cannot be improved by translation into a different symbol system.</p> <p>8. Relationships are primarily expressed in terms of quality.</p> <p>9. Models primarily impact feelings.</p>
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** Chart Adapted from *Life Maps* (1985, Word Books, Waco, Texas) by Sam Keen, et al

The mediumistic Artemis is archetypally the wise old woman of menopausal age--the crone. With lowered estrogen levels and an increase in proportion of testosterone, she experiences a more masculine development of consciousness. She is released from the reproductive cycle to be more spiritually productive. As such, she become more androgynous in her sex hormone chemistry.

Specific occupations associated with Artemis are:

- archery teacher
- astrologer
- forest ranger
- medium
- mystic
- midwife

**naturalist
nun
priest
prima ballerina
wild life management**

EMOTIONAL IMAGE

Experientially, Artemis symbolizes Lunar-consciousness--that diffuse kind of awareness that works with reflection and is nonlinear rather than using direct logic or analysis. It is a consciousness that notices similarities and unifies, rather than separating and fragmenting. This state of mind manifests as a deep ecological connection with the universe, a merging of the environmental self and the transpersonal self.

Modern women have reflected the split in consciousness fantasized in our contemporary, work-a-day world. With society emphasizing the superiority of logical (or masculine) forms of consciousness, women experience a tension. The tension is between the opposites of feminine thoughts and its values, and the more dominant paternal style. Artemis reminds us of the values of the "natural mind," or being-in-soul and thereby suffused with spirit.

Artemis is the connection which mediates between the personal and collective aspects of life, between actualities and the beyond. She bridges the individual conscious horizon and the primordial realm of the imaginal with its images, ideas, figures, emotions, and beliefs.

The feelings which are developed through this "soul-making" are more impersonal. There is a detailed sensitivity to the specific worth of psychic contents and attitudes. She keeps women in touch with the innermost core of their being, and does the same for mystical man. Artemis can act as a soul-guide for men through the anima, his feminine component.

In Tarot, THE HIGH PRIESTESS represents a very high inspirational development; the anima for men. She relates him to the superconsciousness, like a muse. If a woman can live up to the promptings of her masculine side, she can become a very spiritualized and developed person by balancing the opposites within.

She is the "patron saint" of the meditative, philosophical, or deeply religious personality. Artemis mediates wisdom by urging participation in the realm of mythical perception. These metaphors of perception are always images. She stirs up the imagination to quest, chase, and muse. She inspires the interpenetration of soul and intellect. Mystical experience is remembering ourselves, most perfectly. In self-realization, there is blissful merging of the personal consciousness with the Universal.

As a medium, Artemis is psychic (sibyl) because her intuitive faculties are strong. Her subjective experience of time is discontinuous. She has the ability to experience possibilities as being more real than the present moment. She glimpses the future and manipulates the present toward that vision.

The importance of the present depends on its effect in the realization of a specific future. An experience is important if it suggests or fulfills visionary sight. Time is not as important to her as the bright picture of possible futures, from which to draw inspiration.

As a moon goddess, Artemis symbolizes the instinctual nature which works through emotional reactions. But THE HIGH PRIESTESS represents a spiritualization, purification, and refinement of the powers of the instinctual nature. The instinctual movement is toward the spirit in ourselves--the mystic quest. The great feminine principle in all of us is receptivity.

Our irrational, changeable nature is expressed as emotional moods. Moods may be destructive but if understood, can lead to a better and more productive life. Understanding and dealing with the rhythms of nature, knowing how to live with them, and deal with them is essentially feminine. Both sexes can become aware of polarities within themselves and understand their behavior and functions so they can be used for higher spiritual aims.

V. Ramachandran asserts he has found a "God Spot" or a "God module" in the brain: a location in the brain that is responsible for human religious experience. Atheists began to assert that the research had proven all religious experience was simply the product of the brain. For the other side, some religious leaders (including the Bishop of Oxford, apparently) read the findings as suggesting that God had put a special receptor in the human brain. Frankly, there are times when his writing invites such speculation.

Overall, however, his description of the Temporal Lobe Epilepsy (TLE) patients' reports is cautious. These reports deal more about religious experience than with God *per se*: "They have an aura, they feel the presence of God, or they make statements that sound religious—not necessarily, 'I see God,' but some say, 'Suddenly the whole universe makes sense to me, I feel enlightened, I see deep meaning in everything.' The syndrome, which may also manifest itself as general hyper-emotionalism, hypergraphia (writing page after page of detailed and spirituality-obsessed diaries), and a compulsion to use religious language, is known well-enough by neurologists to earn its patients the description, "temporal lobe personality."

Ramachandran hypothesizes that the emotional intensity that some TLE patients experience may be a result of a strengthening or "kindling" of certain neural pathways between the temporal lobe and the amygdala. The amygdala is a part of the limbic system that regulates or filters emotional connections that we make with persons and things that are of significance to us.

Those who have had repeated temporal lobe seizures apparently have even more intense experiences when they encounter something meaningful to them. They tend to interpret everyday occurrences as having extraordinary meaning, and they often have heightened responses, particularly, to things religious. Ramachandran elaborates, "Something has happened in their temporal lobes that heightened their response to religious terms and icons...There may be a selective enhancement of emotions conducive to religious experience."

The question remained whether the enhancement of religious experience was a part of a general heightening of emotional responses, or something more selective. To test the question, he asked two religiously inclined TLE patients to observe a variety of images and words while he measured their galvanic skin responses. To his surprise, he discovered that these patients actually showed a reduced response to certain images (those having to do

with sex), but a heightened response to religious words and images. One interpretation of this finding is that "there are neural structures in the temporal lobes that are specialized for religion and spirituality, that are selectively enhanced by the epileptic process."

While he resists any suggestion that his findings are religiously reductionistic or should be interpreted as either for or against the existence of God, he does speculate about the relationship between these brain pathways and our religious experiences: "Could it be that human beings have actually evolved specialized neural circuitry for the sole purpose of mediating religious experience?" Or, as he said in a later interview, "There may be certain neural pathways—neural structures in the temporal lobe and the limbic system—whose activity makes you more *prone* to religious belief. Now why this would happen, I don't know. One possibility—and this is *very* speculative—is that human beings are hard-wired for religious beliefs."

Ramachandran's research is interesting and tends to uphold the assertion of a connection between the limbic system (particularly the amygdala) and religious experiences. There is no explicit application or insight here into religious ritual. At one point he muses how the galvanic skin reaction test might be used by religionists: "One wonders whether this technique could be useful as a sort of 'piety index' to distinguish religious dabblers or frauds ('closet atheists') from true believers. The absolute zero on the scale could be set by measuring Francis Crick's galvanic skin response."

Specific keywords associated with Artemis are:

<p> anima beaming bliss calm compassion contemplation conscientious crystal diva dreaming meditation moon mushroom pale </p>	<p> passive patience peaceful quiet remembering sensitivity serene sibyl silver spinster sympathetic voyage wise old woman woman's intuition waiting </p>
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INTELLECTUAL IDEA

THE HIGH PRIESTESS is an inner experience. She is intuition and inspiration and kindred experiences. These come from a hidden, inner world and the aspirant must be receptive to their whisperings and visionary states. If a person loses this ability for receptibility, being enmeshed in the veils of the conscious, egoistic mind and the material world, then She cannot be realized. We must learn to be quiet and meditate so that the light

shines through her influences. At the last moment we must give up our aspiration, becoming receptive and quiescent, so the Light makes its way through us.

The feminine aspect of nature brings forth a child through the mystery of birth. This child may not be human, but the result of a creative conception. It may be the result of a moment of genius--a poem, painting, idea, or discovery. The child is incubated in the silent womb of the goddess, protected until the moment of emergence. First comes a union of opposites, then a period of quietude and gestation, nurturing and withdrawal. Then the birth of genius, the result, the child.

When an individual has undergone the required initiations, or gained a proper relationship to the feminine principle, Self mediates the flood of imagery from the unconscious. Artemis gives it value and meaning from her perspective as The High Priestess of inspiration.

This is the highest incarnation of the feminine principle in its function of spirit, or divine knowledge. In Christianity, this role is filled by the Blessed Virgin Mary, and in Gnostic sects she was known as the Sophia. She is an inner daemon whose acquaintance brings awareness of the ultimate reality of our own natures.

She bestows an experience of immortality by lifting us from the daily time frame into a sacred realm of metaphorical perception. This adds a sacred dimension to life's events.

The moon goddess, in her crescent phase, is Virgin in the psychological sense of the word. In ancient times, the virgin was distinguished by the fact that she was not dependent on what others thought. She was no slave to conventional behavior. Rather, she was motivated by contact with her core Self, the well-spring of her being.

Being true to herself, the Artemisian woman feels no need to capture, possess, or conciliate a husband. Even in marriage, the role she plays expresses her own fierce individuality. She bears her divinity in her own right, not as merely counterpart to man.

Virginity is an inner attitude which may seem unconventional, but it is traditional since it is concerned with gaining a right relationship to the goddess. Its values come from our deep interior processes, not external dictates. Motives are misplaced if the only result is development of a headstrong egocentricity.

Thought in its widest sense is a constructive process utilizing internal representations, and so is inner spiritual life. These representations may be visual images, speech images, or musical images, even scents, which classically are reported in spiritual experiences. Thus consciousness is a self-organizing, emergent property of living organisms.

The ability to construct internal representations of sensory stimuli, which underlies perception and cognition, is also an emergent property. Viewed objectively, internal representations are perfectly concrete entities, even though we can't yet characterize them precisely. But internal representations also have a subjective aspect: in certain situations we are aware of them. Consciousness is central to being and directly accessible by intuition. But it is not beyond perception; it is the very stuff of perception.

In 1979, Charles Laughlin and d'Aquili wrote *The Spectrum of Ritual*, which was elaborated upon by d'Aquili and Newberg in *The Mystical Mind*, (1999). They assert that ritual accomplishes two important biological feats: 1) coordinating the neural systems and functions of ritual participants into group action, leading to a sense of unity among participants, and 2) entraining and transforming the structure of neuromotor subsystems in developing individuals.

The imperative toward ritual arises in the interaction in the brain of the left frontal lobe and the left orientation area, which forces us to look for causes in any chain of events; to create meaningful narrative stories about experience. What really maintains the force and persistence of religious ritual, however, is ineffable experience, the intense positive affect experienced by participants.

D'Aquili and Newberg propose that certain religious practices can so stimulate the body's calm system or its flight system that activity in the related brain circuit starts to "reverberate," while simultaneously shutting down ever more of the other system. Depending on whether the ritual is fast (as in the spinning dance of Sufi whirling dervishes) or slow, as in Zen meditation, different parts of the brain are activated, perceived by the mind as a higher state of consciousness.

Within the brain, the autonomic nervous system regulates and adjusts baseline body function and responds to external stimuli. It consists of two mutually inhibitory subsystems: the sympathetic or arousal system and the parasympathetic or quiescent system. The arousal system is the source of our fight or flight response, and is connected to the adrenal glands, the amygdala, and reaches into our left cerebral hemisphere. It is sometimes called the "ergotropic" system because it releases energy in the body to react to the environment.

The parasympathetic or quiescent system (sometimes called the "trophotropic" system), on the other hand, conserves energy, promotes relaxation and sleep, and maintains basic body function and growth. It includes the endocrine glands, parts of the hypothalamus and the thalamus, and reaches into the right cerebral hemisphere. Although this material is highly complicated, the most important relationships to keep in mind here is that the dominant (analytical) mind is connected to the arousal system and involves the amygdala, and the non-dominant (holistic) mind is connected with the quiescent system and involves the hypothalamus and hippocampus.

Psychologist Roland Fischer (1967) developed a map of inner space and states of consciousness based on the dynamics of the ergo- and trophotropic systems. He postulated that all knowledge is innate, being an interpretation by the cerebral cortex of sub-cortical information. He contends that each level of arousal contains certain types of information which one can "know" only at that level. This is similar to other theories of state-related learning and memory, (Tart, 1975; Rossi, 1986).

Fischer also postulated that at extreme levels of hyper- or hypoarousal there is a paradoxical shift from one physiological system to the other, automatically. He declared boldly that the extremes in either direction create mystic experiences of the Self, which are

interpreted either as an experience of the Plenum (hyper-arousal) or the Void (hypo-arousal).

Fischer summarized his theories by creating a consciousness map, a 'Cartography of Meditative and Exalted States.' Increased states of arousal were graphed to the left of center (which indicates "normal awareness"), while increasing tranquility was mapped to the right. Movement of an individual's consciousness to the Left brings increasing motor excitation, while that to the right brings almost total lack of sensory input. In Fischer's own words:

"What I propose is that normality, creativity, schizophrenia, and mystical states, though seemingly disparate, actually lie on a continuum. Furthermore, they represent increasing levels of arousal and a gradual withdrawal from the synchronized physical-sensory-cerebral spacetime of the normal state. Specifically, there is a retreat first to sensory-cerebral spacetime and, ultimately, to cerebral spacetime only. The gradual withdrawal from physical spacetime is an expression of the dissolution of ego boundaries, that is, the fusion of object and subject, and it implies that an existence solely in spacetime is an oceanic experience, the most intense mirroring of the ego in its own meaning."

In summary, we can see that for any individual perception of the universe (as Self or mind) can occur as an internal or external experience. It is our rich internal experiences that have puzzled researchers in consciousness as the so-called "hard problem" of consciousness. At the extreme parameter in either direction, we experience an encounter with the Absolute. Along the continuum, we may experience varying forms of an I-Thou dialogue uniting extremely hyper- or hypo-arousal states.

Hyperarousal, or mania, may result from psychoactive drugs, or a bipolar or schizophrenic episode. It results, sometimes in "ego-death" when the "I" becomes so freaked-out it submits or gives in to the sensory overload which overwhelms it. Hypoarousal leads to a characteristic state of silence or emptying when the ego voluntarily submits to unification of subject and object, of "I" and Self. In either case, cortical and subcortical activity become indistinguishably merged; there is no separate "I" left to perceive an objective reality. Thus, dualism is obliterated.

Paradoxical physiological mechanisms operate in the body under most conditions to chemically prevent the attainment of higher states of arousal on either end of the spectrum. They function somewhat like the switchover from arousal to repose which occurs at the point of orgasm. But it is possible, with repeated exposure to the paradoxical situation to function effectively at higher levels of arousal.

In fact, there is always a complementary component of the opposite arousal system functioning even in the mystical state. If there were no ergotropic arousal in mediation, for example, we would fall asleep. Thus in some sense, our task becomes falling asleep as much as we can while remaining awake. REM sleep, or the dream state, is another example of physiological paradox where there is extreme cerebral excitation coupled with little muscular activity.

We can characterize the physiological condition of an experience of the Self as remaining trophotropically relaxed while ergotropically alert. The mystic achieves his goal when he learns to short-circuit the homeostatic mechanism of negative feedback. The negative feedback system perpetuates the experience of duality between the "I" and Self.

D'Aquili and Newberg outline "four basic categories of arousal/quiescent states that may occur during extraordinary phases of consciousness": The Hyperquiescent state; the Hyperarousal state; the Hyperquiescent state with Eruption of the Arousal System; and The Hyperarousal State with Eruption of the Quiescent System. In addition they propose a fifth state where both systems are maximally aroused, the absolute unitary state (AUB). *The Mystical Mind*, 25-16; see also d'Aquili and Newberg, "Liminality, Trance and Unitary States in Ritual and Meditation," *Studia Liturgica* 23 (1993):2-24.

D'Aquili and Laughlin report research that shows that when either the arousal or quiescent system is maximally stimulated it results in a "spillover effect" or a stimulation of the other system. That is, experts in meditation may experience a "rush" or a release of energy during a hyperquiescent state. From the other side, those who engage in rhythmic rituals that engage the arousal system, such as energetic dancing and singing, may experience states of bliss, tranquility, and oneness with others. Hyperarousal and hyperquiescent states seem to stimulate the limbic system, which regulates our emotions. Hence, these states are experienced as being emotionally intense, and often pleasurable.

In summary, in states of very high activity around one circuit, there can be a "spillover" such that the dormant system activates and goes "on line" simultaneously with the other. Although rare, this dual state can lead to a sense of "tremendous release of energy" that may feel like "oceanic bliss" or absorption into the object of contemplation.

And in extreme cases there is a "maximal discharge" of both systems, inducing brain activities perceived by the mind as the Absolute Unity of Being or AUB, which brings the abolition of any discrete boundaries between beings, by the absence of a sense of time-flow, and by the elimination of the self-other dichotomy. A mystic in the AUB state will experience either a divine being, such as God, or the cosmic void of Nirvana, depending on whether there has been a predominantly ergotropic or trophotropic involvement. Yet we cannot reduce religious awe, numinous vision or mystical experience to merely a neurochemical flux.

It is also during these "spillover" experiences that the paradoxes presented to the brain through myth become resolved by the simultaneous functioning of both hemispheres of the brain. In ritual stimulation of the arousal system, for example, the presentation of what is an unresolvable logical problem in the left brain (the wafer is both bread and the Body of Christ), is experienced as unified in the holistic operation of the right brain.

Ritual participants therefore may experience a resolution of the problems presented by the myth and a deep unity with other participants: "The simultaneous strong discharge of both parts of the autonomic nervous system creates a state that consists not only of a pleasurable sensation, but, also, under proper conditions, a sense of union with conspecifics and a blurring of cognitive boundaries." Similarly, those who engage in meditation may report

that they experience resolution of paradoxes during some meditative states, hence the famous use of such paradoxes by Zen practitioners.

Both meditation and ritual can lead to the spillover effect and the simultaneous discharge of the arousal and quiescent systems. But they come at the experience from different directions. Meditation begins with the quiescent system and by its hyperactivation can achieve spillover into the arousal system (from trophotropic to ergotropic). Ritual approaches from the opposite system (from ergotropic to trophotropic). But there are other differences as well:

The difference between meditation and ritual is that those who are adept at meditation are often able to maintain an ecstatic state for prolonged periods of time. The ecstatic state and sense of union produced by ritual are usually very brief (often lasting only a few seconds) and may often be described as no more than a shiver running down the back at a certain point. This experience, however, may be repeated at numerous focal points during the ritual. Furthermore, the ecstatic states produced by ritual, although they are usually extremely brief, seem to be available to many or most participants. The ecstatic states attained through meditation, although they may last for hours or even days, require long practice and intense discipline.³¹

So ritual is more accessible and effective than meditation for large groups of people as a system for stimulating both hemispheres of the brain and thereby bringing mythic conundrums to resolution. In *The Mystical Mind*, d'Aquili and Newberg elaborate on the difference between these approaches, describing a complex continuum of unitary or mystical states that may arise from different types of ritual or meditation, but the basic principles remain intact.

Ritual is here described as a "bottom-up" technology for activating the autonomic systems; its rhythmic qualities stimulate either the arousal or quiescent systems that then affect the higher brain functions. Slow rhythms in ritual, like chant and read liturgy, primarily stimulate the quiescent system, while rapid "driving" rituals involving loud noise and body movement stimulate the arousal system.

Either approach may lead to a "filling up" of the autonomic system and then a spillover effect and an altered state of consciousness. Slow ritual may lead to a hyperquiescent state and a feeling of peace or unity, and occasionally result in a spillover into the arousal state or a sense of profound energy. Similarly, fast ritual may provoke a hyperarousal state of attention and intention, sometimes spilling over into the quiescent state and a sense of bliss.

They hypothesize that ritual could theoretically lead to the maximal discharge of both systems, causing hallucinations, mystical visions, or a state of Absolute Unitary Being (AUB). Finally, they note that marked ritual behavior tends to draw the attention of the amygdala, as does strong smell, which may be the biological source of the experience of religious awe. Ritual actions and the presence of incense may help neurologically for ritual to promote altered states of consciousness in its participants.

In *The God Part of the Brain*, yet another author Matthew Alper alleges that the brain is hard-wired for mystical experience to modify the threat of our hostile existential reality.

"Based on social, psychological, and anthropological confirmation as well as the latest genetic and neurophysiological research, The "God" Part of the Brain explores the apparent correlation between spirituality/religiosity and the human brain. Just as honeybees are compelled to construct hexagonal shaped hives, perhaps humans are compelled to perceive a spiritual reality...as a reflex, an instinct. And why would we have evolved such an instinct?"

"With the dawn of human intelligence, for the first time in the history of terrestrial life, an organism could point its powers of perception back upon its own being; it could recognize its own self as an object. For the first time, when an animal knelt down to drink from the watering hole, it recognized its own reflection. Only humans possess the advanced capacity for self-awareness. Though, in many ways, this capacity has helped to make our species the most versatile and powerful creature on earth, it also represents the source of our greatest affliction. This is because once we become aware of the fact that we exist, we become equally aware of the possibility that one day we might not...even more so, that it's certain that one day we will not. With the advent of our species, with the emergence of self-conscious awareness, a life form became cognizant of the fact that it is going to die. All we had to do was to look around us to see that death was inevitable and inescapable. More terrifying yet, death could befall us at anytime. Any moment can be our last."

Further readings on Artemis include:

GODDESSES IN EVERY WOMAN, Jean Shinoda Bolin

THE GODDESS WITHIN, J. and R. Woolger

ANIMA, James Hillman

WOMAN'S MYSTERIES, M. Esther Harding

KNOWING WOMAN, Irene de Castillejo

THE MOON AND THE VIRGIN, Nor Hall

FACING THE GODS, James Hillman, ed.

THE MEANING OF APHRODITE, Paul Friedrich

THE VIRGIN ARCHETYPE, John Layard

THE GODDESS, Christine Downing

ALONE OF ALL HER SEX: MYTH & CULT OF THE VIRGIN MARY, Marina Warner

"The Net of Artemis: Text, Complex," S. Simmer, DRAGONFLIES 1980

SPIRITUAL MYTH

Like Hermes as Logos is the Voice of the Light (THE MAGUS), Artemis is the Soul of Light (THE HIGH PRIESTESS). Her favorite incarnation in Jungian literature is THE BLACK MADONNA, so beautifully delineated by Marion Woodman in various sources.

This archetype is the source of worldwide legends of Virgin-Mothers. In recent years there has been a neo-pagan revival of the cult of the goddess, yet She has always been with us. Her worship survives in the cult of the Blessed Virgin Mary, and a multitude of other sacred names.

This feminine receptivity is the path of the mystic. Artemis joins the mythical to the causal, a Path from Self-Realization to God-Realization. On the Path of THE HIGH PRIESTESS, we learn to untie the knot between the mind and the soul, through meditation.

Artemis, as **THE HIGH PRIESTESS**, is the bridge across the **ABYSS** of the transcendent imagination. Without her as guide, the soul's immeasurable depths yawn wide, threatening to swallow us in the Void. We only perceive personifications of gods and goddesses through the anima-bridge of imagination.

She mediates between the known and the unknown; she mystifies and insists upon uncertainties. As archetype of psychic consciousness, Artemis bridges awareness of our unconsciousness. She reflects a reality of ambiguity, indecision, and uncertainty. She reminds us of the "dark" side of life.

The Artemisian woman maintains and serves psychological faith. She is convinced that psyche and its fantasies are as real as matter and nature, as real as spirit. She has the ability to convey this experience to others. Artemis, as anima, transforms events which are impersonal and only natural reactions or only spiritual ideas into psychic experiences.

Consciousness arising from soul derives from images of myth manifesting in dreams, fantasies, and life patterns. In "soul-making," to be conscious means that we are aware of these fantasies which underlie and motivate daily life. The "fantasy world" is not separate from "reality."

In myth, the Virgin is associated primarily with her son. This son is conceived through her relationship to Spirit. She is frequently the Mother of God. He is born through virgin-birth (parthenogenesis). He is the magickal child, the son who is the sun. Spirit will be reborn whenever we are in touch with soul.

The son represents the woman's development of masculine, or solar consciousness. Together they represent the fulfillment that wholeness implies. Their relationship suggests we illuminate imagination with intellect, and refreshen intellect with fantasy.

The "Third Eye" gland is implicated in the production of endogenous MDA, dubbed the Spirit Molecule (Strassman); it is responsible for the intrinsic perception of Light. This third eye is also implicated in the raising of Kundalini, the serpent power, responsible for awakening inner sight or in-sight. The key to a successful meditation is the withdrawal of the sensory currents to the eye focus or the third eye. Once there, it requires a constant gaze into the middle of whatever is lying in front of us without any distractions of thought.

The monumental work of Dr. Rick Strassman focuses on the role endogenous chemistry plays in creating spiritual life. He calls "*DMT: the Spirit Molecule*," (2001) an endogenous hallucinogen which he boldly asserts is an active agent in a variety of altered states including mystical experience. To learn all about the biological action of the pineal gland and its chemistry, visit Strassman's excellent site (and purchase his fine book), where you can find complete chapter summaries for the entire book. <http://www.rickstrassman.com>

Endogenous DMT is described as the source of visionary Light in transpersonal experiences. Its primary source, the pineal, has traditionally been referred to as the Third Eye. DMT production is particularly stimulated, according to Strassman, in the extraordinary conditions of birth, sexual ecstasy, childbirth (also corresponded with Artemis as mid-wife), extreme physical stress, near-death, and death, as well as meditation. Pineal DMT also plays a significant role in dream consciousness.

"All spiritual disciplines describe quite psychedelic accounts of the transformative experiences, whose attainment motivate their practice. Blinding white light, encounters with demonic and angelic entities, ecstatic emotions, timelessness, heavenly sounds, feelings of having died and being reborn, contacting a powerful and loving presence underlying all of reality--these experiences cut across all denominations. They also are characteristic of a fully psychedelic DMT experience. How might meditation evoke the pineal DMT experience?"

"Meditative techniques using sound, sight, or the mind may generate particular wave patterns whose fields induce resonance in the brain. Millennia of human trial and error have determined that certain "sacred" words, visual images, and mental exercises exert uniquely desired effects. Such effects may occur because of the specific fields they generate within the brain. These fields cause multiple systems to vibrate and pulse at certain frequencies. We can feel our minds and bodies resonate with these spiritual exercises. Of course, the pineal gland also is buzzing at these same frequencies. . .The pineal begins to "vibrate" at frequencies that weaken its multiple barriers to DMT formation: the pineal cellular shield, enzyme levels, and quantities of anti-DMT. The end result is a psychedelic surge of the pineal spirit molecule, resulting in the subjective states of mystical consciousness." (Strassman, 2001).

Strassman (1990) has suggested that the *pineal gland* is a possible source of endogenous hallucinogens and this gland is also associated with sleep cycle rhythms, and traditionally with mystical states of consciousness. Besides the production of melatonin, the pineal may synthesize endogenous hallucinogens in response to certain psychophysical states, and raise serotonin levels in the brain..

These hallucinogens may belong to the tryptamine or beta-carboline family of compounds. One compound (6-methoxy-1,2,3,4-tetra-hydro-beta-carboline) has been proposed as the producer of rapid eye movement sleep. It is concentrated in the retinae of mammals which may be related to its visual effects.

There are several ways in which either psychoactive tryptamines and/or beta-carbolines may be produced within the central nervous system (and possibly within the pineal) from precursors and enzymes that are known to exist in human beings. In addition, nerve fibers leave the pineal and make synaptic connections with other brain sites through traditional nerve-to-nerve connections, not just through endocrine secretions.

Serotonin or tryptamine levels are higher in the pineal than any other organ in the brain. 5-methoxy-tryptamine is a precursor with hallucinogenic properties which has a high affinity for the serotonin type-3 receptor. Gucchait (1976) has demonstrated that the human pineal contains an enzyme capable of synthesizing both DMT and bufotenine-like chemistry. These compounds are prime candidates for endogenous "schizotoxins," and their production may be related to stress and/or trauma, and has been implicated in the etiology of schizophrenia.

Strassman notes that both the embryological rudiments of the pineal gland and the differentiated gonads of both male and female appear at 49 days. Melatonin is a time-keeper for gonadal maturation and/or competence so the pineal is implicated again. He suggests this may be the ontological source of the tension between sexual and spiritual energies. The pineal gland, as source of both psychedelic compounds and the gonads,

source of physical immortality, may work in concert (or oppositon) in the individual's development through time.

Stress-related hormones are implicated in pineal activation to activate normally latent synthetic pathways, creating tryptamine and/or beta-carboline hallucinogens. When we face stress or potential death, or in meditative reveries, we "tune back" into the most well-developed motif of such experiences--the birth experience. Perinatal themes and memories re-emerge.

Those with Cesaerean deliveries report greater difficulty in attaining transcendent states of breakthrough and release during drug-induced states. Maybe less fetal (or maternal) hallucinogens were released at the time of birth. They may not, according to Strassman, have a strong enough "*template of experience*" to fall back on, to be familiar enough with to let go without fear of total annihilation, because lesser amounts of pineal hallucinogens were produced during their births.

The pineal may be modulated in its activity by meditative practices, to elicit a finely-tuned standing wave through resonance effects and other techniques. It creates the induction of a dynamic, yet unmoving, quality of experience. Such harmonization resynchronizes both hemispheres of the brain.

Dysynchrony is implicated in a variety of disorders. Such a standing wave in consciousness can induce resonance in the pineal using electric, magnetic or sound energy, and may result in a chain of synergetic activity resulting in the production and release of hallucinogenic compounds.

Thus, the pineal may be the physical representation of an attractor, or "lightning rod" of consciousness. Pineal function may profoundly affect consciousness at the time of birth, death, near-death experiences, and during unusual psychophysical states such as shamanic or psychotherapeutic experiential journeys or meditation.

Kabbalalists speak of this light in relationship to the ecstatic entry into Pardes. Literally, it means "orchard," but is the name for practice of Kabbala in the four worlds. The "orchard" is the Garden of Pomegranates, the spheres of the Tree of Life.

It is not a philosophical concept, but a metaphysical experiential truth. Having nothing to do with intellect, it is the experience of supreme light. This experiential Light is called the "Light of the Shekinah," and this links it with the qabalistic ascent up the Middle Pillar and with the High Priestess path. The intense radiance of the Divine Presence is greater than the full light of the sun, and can be overwhelming or blinding to those too weak or ill-prepared for it.

In this state the soul remains covered or adorned, and one cleaves to the Light. It is direct gazing at the radiance of God (*Tzvi ha Shekinah*), a light so strong that no one can bear it. It's characteristic is a great desire to cleave, as described in medieval texts. There is no idea of love, only of awe. The intensity of the experience is linked with a great desire to cleave to the radiance of the Shekinah and a strong experience of union with the Divine.

According to Kabbalist Idel, this is the result of a desire to enter and become part of the divine realm. There is an attempt to enjoy the Divine without interruption. The language of desire implies erotic overtones to the experience, especially since "Shekinah" in Hebrew is feminine, to cleave to a feminine aspect of the Divine; the "sweet radiance" has erotic overtones.

It is also the mystical death of the pious ones whose souls are separated from all concerns with the mundane world, and who cleave to the supernal world. It is not an accident, but an achievement and grace. There is a three-fold structure implied on the Tree of life by three paths up the Middle Pillar -- the direct mystic "highway": first the *via purgativa*, then a *via illuminativa*, and finally a *via unitiva*.

It is more than an interpretive paradigm of the soul dying and not returning because it reaches a great attainment out of intense love. The cleaving is total, the soul and the Light become one entity of original essence. It is a *unio mystica*, bridging in a total manner the gap between man and God. And we can extract from the sources a method and a practice, but not without the help of a Master, to reach the extreme and yet return.

The Divine Light attracts the light of the soul, "which is weak in relation to the Divine Light." The metaphor is one of magnetic pull, a non-traditional metaphor which attempts to come to terms with personal experience of a soul immersed in this light. According to Idel, the Kabbalists tried to reach the pre-fall state of the Primordial Man, to enter again the radiance of the Shekinah, and even to enter a certain erotic relationship with the Divine Presence.

You see the radiance of the Divine Presence on those worshipping out of love, each according to rank with the expectation of a corporeally observable radiance -- a glow. For the Kabbalists, Paradise and Pardes were corporeal, sensuous, erotic, sexual and an object for practical striving. The Kabbalistic tradition is not one of speculations about mysticism; it is a full-fledged mysticism. An extreme type of experience is sought out and considered positive. The mystical death is the real goal of ecstatic Kabbalah, and for these ecstasies, extreme experience is final experience.

However, there are inherent dangers mentioned in Jewish hermeneutics. The Divine is not affected by the entrance of the philosopher or mystic into the Pardes for it affects only the human soul. But in the Theosophical paradigm it does have affects on the non-human realms, the system of divine powers, influencing the relationships between them. In the Theurgic paradigm there is an influence on, or struggle with, the demonic realm, which seeks to hold the soul back from union.

The Divine and demonic share a common anthropomorphic structure. Hence, the Spheres are prototypes for both the Divine and demonic realms. Both paradigms seek to affect the structure and relationship of external entities, either by insuring harmony in the Divine world or by combating some aspect of the demonic. In both cases, Pardes represents a danger zone, leading potentially to insanity or death, this realm being too strong for most mortals. Premature entry to this realm has been likened to tearing a silk scarf from a rosebush, rather than gently removing it slowly (with regular meditation).

Ecstatic Kabbalists seek to induce or re-induce the harmony in the Divine spheres, disturbed by primordial human transgression, separating one aspect of the divine from the rest. The Theurgic technique seeks to influence God and restore the organic unity between the Divine Powers. Only if we have the ability to distinguish good and evil can we truly know the good, and truly worship God. This must be done so that we are not attracted by or immersed or inundated by the demonic realm, thus remaining time-bound in the creation.

CULTURAL COUNTERPARTS

Diana (Roman)

Isis (Egyptian)

Prakriti, Maha-Devi, Maya, Shakti, Lakshmi (Hindu)

Blessed Virgin Mary (Catholic)

Sophia (Gnostic)

Shekinah (Jewish)

Shin-moo (Chinese)

Nutria (Etruscan)

Virgo-Paritura (Druid)

Chimalman, or Sochiquetzal (Mexican)

Disa (Scandinavian)

CONTEMPORARY EXAMPLE

Mother Theresa, Nobel Peace Prize winner for her protection of small children.

KEYWORDS

intuition, contemplation, meditation, waiting, incubation, dreaming, remembering, sibil, silver, blue, silver-blue, anima, patience, wise old woman, repose, crystal, moon, spinster, Madonna, purification, refinement, transformation, temperance, receptivity, androgyny, birth (growth and decay), mood, rhythm, oscillation, feminist, medium, dedication, philosophical, directed will, androgyny, receptivity

DIALOGUE WITH ARTEMIS

We seek contact with our internal sense of wholeness and independence, and psychological well-being. We seek this through balancing the masculine and feminine potentials within ourselves. Contact Artemis as the mid-wife of your psychological rebirth to greater awareness.

Also seek Artemis as the psychic Wise Woman, whom we can ask for nourishing counsel, as well as creative inspiration. Approach her with awe and reverence. Sit quietly, breathing deeply until you are very relaxed and in the twilight imagery state. Clear the mind of the day's activities and contemplate some exalted aspect of the archetypal Feminine, such as the Blessed Virgin Mary, or celestial queen Sophia. Feel her warmth embrace you as you move in and around her imagery. She moves in you and you move within her cosmic imaginal body.

You may be too awestruck to speak, but you can begin a dialogue in true humility. She may speak, or merely make her comforting presence known. She leaves an aura of purification or cleanliness. Record any images, impressions, events, or dialogues you may experience with her essence. Then return to stillness. Record your feelings about this profound encounter with the Virgin-Mother. Seek her comforting arms time and again, especially when you feel "wounded" or in need of spiritual nourishment.

Waxing Moon Meditation: Ground and center. Visualize a silver crescent moon, curving to the right. She is the power of beginning, of growth and generation. She is wild and untamed, like ideas and plans before they are tempered by reality. She is the blank page, the unplowed field. Feel your own hidden possibilities and latent potentials--your power to begin and grow. See her as a silver-haired girl running freely through the forest under the slim moon. She is Virgin, eternally unpenetrated, belonging to no one but herself. Call her "Virgin" and feel her power within you.

Full Moon Meditation: Ground and center, and visualize a round full moon. She is the Mother, the power of fruition. She nourishes what the New Moon has begun. See her open arms, her full breasts, her womb burgeoning with life. Feel your own fertility, the power to nurture, to give, and make manifest what is possible. She is the sexual woman; her pleasure in union is the moving force that sustains all life. Feel the power in your own pleasure, in orgasm. Her color is the red of blood, which is life. Call her "Mother" and feel your own ability to love.

Waning Moon Meditation: Ground and center. Visualize a waning moon's crescent, curving to the left, surrounded by a black sky. She is the Old Woman, the Crone who has passed menopause, the power of ending, of death. All things must end to fulfill their beginnings. The grain that was planted must be cut down. The blank page must be destroyed for the work to be written. Life feeds on death--death leads on to life, and in that knowledge lies wisdom. The Crone is the Wise Woman, infinitely old. Feel your own age, the wisdom of evolution stored in every cell of your body. Know your own power to end, to lose as well as gain, to destroy what is stagnant and decayed. See the Crone cloaked in black under the waning moon and feel her power in your own death.

ARTEMIS IN YOUR LIFE

- 1. Describe your relationships with your grandmothers.**
- 2. How do you express your mystical, or androgynous nature?**
- 3. Have you ever had the experience of being a "mid-wife" either for a physical birth (human or animal), or as a spiritual midwife for someone's psychological rebirth? If you have had a personal rebirth experience can you identify how this archetypal power influenced that event?**
- 4. When you were young did you form a strong attachment to a wise older woman, one associated with psychic or spiritual power, perhaps? How did she figure in any personal transformations you underwent at this time, for example, did she provide nourishment, encouragement, support, counseling, etc.?**

5. Transpersonal aspects of the Virgin include meditation and spiritual midwifery. Do these, or other aspects of Artemis have an important place in your life?
6. Did (does) your mother embody any Artemisian qualities, such as intuitive or psychic tendencies, exceptional independence for a woman of her generation, or goal-oriented, single-pointed behavior?
7. How do you see Artemis affecting your 1) behavior, 2) feelings, 3) thoughts, and 4) belief system?
8. Have you ever had an inner vision of a female wisdom figure? Explain the life circumstances surrounding this event.
9. Describe your closest experience of the mystery of birth, either your children's birth or one at which you were present. Describe your feelings, especially any glimpse into another state of consciousness than "normal" reality.
10. What is your attitude toward Mother Nature and deep ecology--the environment, plant and animal life, conservation, nuclear waste, etc.?
11. Artemis is also responsible for bringing creative ideas to birth. Have you ever had an idea or project that seemed to be "born" in some praeternatural manner, and take on a "life of its own"?
12. Have you ever noticed the cycles of the moon having an effect on your overall well-being or moods? Do you ever notice, in particular the Full Moon or New Moon (Dark of the Moon)? You may want to watch your feelings over a lunar month and see how they fluctuate.
13. What are your beliefs concerning the soul and its immortality, resurrection, karma, and reincarnation?
14. How do you feel you could express the feminine archetype of "Receptivity" more effectively in your daily life and in your spiritual path?

*Aphrodite, the Beauteous, born of sea-foam at dawn;
By her ardent persuasion, the hearts are all won.*

CHAPTER III: THE EMPRESS

APHRODITE

Aphrodite is the well-known goddess of love, beauty and seductive power. She is the pure erotic impulse, pure libido, pure imagination, fertility, fruitfulness. The Hollywood love-goddess is a modern icon of her eternal power. She inherently possesses the qualities of grace, charm, and desire. She is a goddess of passion as well as pleasure, sensuality, affection and sensitivity. She can manifest as artistic and aesthetic inspiration, the desire to give birth to something remarkable.

There are pleasures and dangers in her enchanting attentions. Aphrodite inspires a compelling, subjective state. Euripides called love the "breathes (or blasts) of Aphrodite." She seeks intimacy, touching the most private aspects of our lives.

Aphrodite is linked with many lovers in different myths. In one version of her life, Aphrodite was married to Ares. So we see that when we are well acquainted with the Ares principle of physicality, we have an encounter with the sensuous energy she represents. In another myth, Aphrodite is said to be the wife of the lame smith Hephaistos. In this story of adultery, Ares is her paramour of choice.

Aphrodite derives her warmth from a golden, sunlit type of sexuality. She has the greatest degree of solar qualities in her personality; whereas the other goddesses have greater lunar consciousness.

This solar affinity does not, however, mean that she possesses a superior style of consciousness where self-awareness is concerned. In fact, she can tend to drift into situations with an aplomb only possible through reckless disregard for the future. Aphrodite can be the source of envy arising from a pulsating desire for life and love.

The origin of Aphrodite is a peculiar image for the Goddess of Love, since she stems from the violent castration of Uranus by Cronos. Her birth from the severed genitals of Uranus symbolizes genetically the relationship of this goddess to her father, and by extension with all men. She is the embodiment of both his cynicism and his phallic sexual imperative. She is the drive personified in an alluring image.

Sexual desire and amorous pleasure function as aphrodisiacs which lead to fulfillment through union of male and female. Aphrodite is an embodiment of the union of opposites wherein the lovers are annihilated. Venus is a binding force, which may appear as a voluntary involvement or with the strength and dynamism of possession.

The paradox of Aphrodite is that she is a loving and passionate wife, but always leaves open the possibility of exploring numerous relationships with gods and mortals. She is always friendly and intimate, except to those who would usurp her position. In her, both love and power drives are embodied in a single goddess.

PHYSICAL FORM

Aphrodite is physically embodied in sex organs, orgasm, and aphrodisiacs (See *THE MAGICKAL AND RITUAL USE OF APHRODISIACS*, Miller). Finding the god in a disease, she expresses through the aptly named venereal diseases, those sexually transmitted afflictions.

Her major motivation is the non-rational procreative urge. It functions through the glands on an instinctual level, producing pulsating physical desire. She herself can become possessed by the passion she arouses in others. She can even take over the behavior patterns of other Olympian gods, most of whom aren't immune to her charms.

But in her desire and longing she can be persuasive, deceitful, or conniving. She is always the potential lover of anyone she befriends. Aphrodite is considered a very assertive, active goddess, constantly mobile and advancing. But when she can't make immediate, personal contact with the object of her desire, the emotions of longing or yearning for the absent beloved are part of her emotional affect. When we are love-sick, she has inspired it.

She inspires not only passion, but also hate, rivalry, vanity, and jealousy. These perils of Aphrodite, the results of unfulfilled desires, show the ambiguity of her gifts. When Aphrodite manifests as emotional assertion, there is a compulsion to act out her dynamic will in daily life.

She is a multi-faceted goddess intimately linked with life (procreation), love (passion), and death (longing for the departed lover). She is associated with nakedness, special costumes, the artful use of cosmetics and other aids which come under the heading of "the arts of love." These include courtship and lovemaking.

By personifying a transcendent image of the seduction of mortals by a goddess, Aphrodite mediates feelings of immortality to the human from the divine. This is the oceanic experience of timelessness in orgasm.

She joins nature and culture by using love as an artform. Her well-practiced skills are continually complemented by her attitudes, sentiments, and moral values. She promotes an aesthetic lifestyle which declares boldly that we should take our fill of love, where and with whomever we desire. Of course, if we do, we had better be ready to suffer the consequences.

Good sex and good foods have always paired well together, whether a sumptuous banquet, or merely a delicious tray of fresh fruits and nuts. The art of kissing probably stems from mouth-to-mouth feeding. Even in current studies, sexual responsiveness in women is positively and significantly correlated with their general positive attitude toward food and eating. Like sex, you should take time together when eat, slowly, relaxing and not rushing things. It takes a full 20 minutes after a meal is through for the body to realize it is full.

To ritualize a meal is to lend grace and style to the action of eating. It is a way of organizing the experience for the greatest satisfaction of all the senses; presentation of the food is important to the eyes as well as palate. Soft music will help slow us down and fill our auditory sense. Of course, too much food can make us feel bloated and we need to digest before rushing into sexual activity. Some people prefer fasting for a time before ritual sex.

Emotional symptoms that affect our attitudes and energy in bed may be part of a metabolic problem and may be curable through simple dietary measures. The anxiety reaction, most common of the "bedroom problems," occurs when the medulla part of the adrenal glands responds to emotional stress by pumping out adrenaline, which in turn raises blood sugar

to get the body ready for action -- but sometimes it overdoes it, increasing blood pressure and heart rate. The body releases adrenaline to help you cope.

An outpouring of adrenaline is the body's corrective mechanism for falling blood sugar. Many people get panic attacks for no apparent reasons, and this may be caused by low blood sugar. You may get cranky before you get panic attacks. Such a reaction is hypoglycemic. General health influences sexual health. The condition of our nerves, blood, arteries, heart, muscle tone, and digestion can greatly determine our abilities in bed. Sexuality is not just in the gonads. It permeates every cell in our bodies.

On a very practical level, Aphrodite is embodied in aphrodisiacs and their effects. The quest for some pill or potion that guarantees better sex or more intense orgasms is as old as mankind's experience of sex. Whether these prescriptions work or not is often a mute point. Since much of our sexuality is psychological in nature, even the promise of enhanced performance may work wonders.

An aphrodisiac might have a variety of effects on either male or female participants. Some of these include producing erection in the male, stimulation of the genitals or nervous system, relaxing inhibitions, augmenting physical energy, strengthening the sex glands, or preventing premature ejaculation.

Aphrodisiacs can either increase sexual appetite or ability in the user. They affect the organs and the sex glands. Some may act as placebos, since the primary erotic organ is the brain. Whatever increases pleasure is an aphrodisiac, including nerve stimulants. They have been used by priests, priestesses, and sorcerers since antiquity to instill love and stir up lust, along with traditional love potions. Some real aphrodisiacs and tonics include yohimbe, kava kava root, saw palmetto, ginseng, fo-ti-tieng, black American willow bark, cactus flowers, damiana, and guarana seeds.

Aphrodite is a goddess not only of fertility, but also of a fertile imagination. There is no sexual organ more important than the human mind. There is no physical and mental experience more ecstatic and blissful than a complete sexual union between two loving partners.

There are no anaphrodisiacs, dampeners, or desexualizers worse than ignorance, fear, or anxiety regarding the quality and effectiveness of one's sexual performance. The greatest sexual tonic for us is physical and psychological health so that we can spontaneously respond with depth. Sex is not mere lust, even if lust is sex. It transcends the two major animal functions and enters the realm of the cultural and spiritual, promoting feelings of love, consideration, and solicitude.

The Ritual of Charisma: If you want to be able to walk up and talk to strangers try something like this method:

To start with recognize that you can prepare for this ritual but **YOU CAN ONLY COMPLETE THIS RITUAL IN PUBLIC**. You can prepare for the ritual by imagining and rehearsing it in your mind (and you'll probably get some results) but preparing is not the same as doing.

First, stand with your eyes closed and make your statement of intent. "It is my will to meet, talk and engage with (X Number of) people/men/women for the successful completion of this operation." Then, begin the Breath of Fire, breathing very quickly from the belly with the stomach moving in as you exhale and out as you inhale.

While doing this imagine a sacred sphere of glowing yellow that surrounds you and extends out from you. Bring forth all feelings of warmth, charm, like-ability and friendliness to everything within or near this circle. Imagine a crowd of people, perhaps off to the side or in front of you, that automatically feel warmth, kindness and magnetism toward you and you feel that toward them. This is your sacred circle that you will work within and it will be carried with you through this ritual. Imagine anyone within its influence will turn likable and you will like them. Remember, to be interesting, be interested.

Optional: If you like, you can invoke a very amiable god figure like Aphrodite, Apollo, Zeus or even Pan. Do this by imagining the god form and all it's/his/her positive qualities are moving through you. If you don't want to invoke a deity then you can invoke a person real or imagined who has the qualities you want, such as invoking or identifying with the Spirit of James Bond when it comes to talking to women.

Head out into public. Treat each action of meeting, greeting, welcoming and talking as a sacred act that must be done with massive friendliness. Let the energy of the yellow sphere influence them and you. Keep focused on the intent of the ritual, namely, meeting and talking with people. When you've completed the ritual banish it with laughter. It'll be hilarious if you really think about it.

Occupations and preoccupations of Aphrodite include:

beauty queen	gynecologist
bunny	hairstylist
centerfold	interior decorator
cheerleader	mistress
courtesan	model
dominatrix	movie star
designer	playboy
entertainer	plastic surgeon
escort	prostitute
flight attendant	public relations
geisha	swinger

EMOTIONAL IMAGE

Surely it must have been on one of these shores so filled with grace and frolicsomeness that the miraculous transformation of beast into man took place. It must have been on such a Greek strand that Astarte of the multitudinous sowlike breasts cast anchor from Asia Minor and the Greeks, receiving the barbaric and coarsely carved wooden statue, cleansed it of its bestiality, left it with only the human breasts, and gave it a human body full of nobility. From Asia Minor, the Greeks took the primitive instinct, orgiastic intoxication, the bestial shout--Astarte. They transubstantiated the instinct into love,

the bite into kisses, the orgy into religious worship, the shout into the lover's endearment. Astarte they transformed into Aphrodite.

--Nikos Kazantzakis, REPORT TO GRECO

Aphrodite is an enchanting sexual fantasy. Her allurements are nearly universal. She is the appeal behind erotica. The present-day Aphroditic woman is easily recognized. A stereotypical form is the Hollywood sex goddess who stimulates the desires and imaginations of millions. This is the very image entertainers such as Madonna, J-Lo, and Angelina Jolie have come to exemplify. She is the fantasy-lover of any whose imagination she stimulates.

This is the type of allure and beauty which produced classic romances--the Queen of Sheba, Delilah, Cleopatra, and Helen of Troy embodied many of Aphrodite's qualities. Helen made the egotistical error of feeling superior to the divine archetypal Queen who made her pay for her vanity.

Aphrodite's libido or energy should be recognized as a dynamism and domain that is not to be challenged competitively. She brings life's mystery with her, and mortals can never possess her fully. Comparison of Psyche's beauty in the tale of Amour and Psyche initiated her cycle of trials and tribulation, by which Aphrodite sought to destroy her for her pride.

The Aphroditic woman of today is characterized in Jungian literature as a hetaira (Latin for she-wolf), or companion to man. She appeals to him generally through reflecting his personal anima, or unique idea of his "perfect woman." This attraction includes seduction, flattery, and inspiration.

She awakens a man's perception of latent talents, most of which he will never have the capacity to develop, since his energy is bound up in pleasing her. She embodies the dual capacity to delight and lead astray. She can awaken not only desire, but also resignation and despair. She appeals to him consciously and subconsciously. She can be a physical, intellectual, or spiritual companion simultaneously.

With little or no regard for the future, her perception of time is discontinuous. So is ours, under her influence, as lovers we feel "suspended in time." Therefore, each moment must be experienced anew, irrespective of past commitments or consequences. Duration is not valued as highly as the intensity of immediate experience. Importance is attached to experiencing intensity of sensation and gratification. The sense of search and urgency for freedom compel Aphrodite to new affairs.

The hetaira seeks unity, but brings disruption when it arises in us. She is no respecter of roles. We see her in the student who falls for the teacher and vice versa. She intrudes in the consulting room of all professionals. She forces her attentions on the married person, and makes employer fall for employee. She seeks friendship, if not overt sexual contact with members of the opposite sex. This alone can be disruptive to a formerly self-sufficient couple.

When a person is dominated by this impulse for sexual desire and union, we usually call them playboys or playgirls (when older, dirty old man or woman). These male or female

Don Juans are typically high flyers. They are impulsive, energetic, enthusiastic, and suggestible. They seem to lead an exciting, free life, spontaneously realizing their whims.

Changing from partner to partner, these people play a terrible price by eternal role-playing to the companion of the moment. They can't form real relationships of any duration because they are in love with their own shape-shifting projections. Life has no continuity, rather the person is always soaring off hither and yon to fulfill yet another fantasy of ideal romance.

Because we are "spacey" under this influence, we transmit a quality of timelessness which fascinates by challenging our borders and limitations. Many innovative artists are of this archetypal dominant. They live close to the archetypal domain of the subconscious and may have mystical tendencies. They are adventurous explorers, and seek the "rush" of dangerous situations.

Those with this drive toward "fatal attractions" eventually come to recognize the compulsive quality of their elan vital. Then they become guilt-ridden and have shame and anxiety for their promiscuous behavior. This results in depression, or desperation because of the inner weakness of an impulsive borderline personality disorder. What they need is to stop trying to live in the realm of total possibilities, accept some boundaries and commit themselves to something or someone.

Another pattern of loving is represented by Aphrodite's kindred, the enchantress Circe. She is a hetaira, or she-wolf, or colloquially "a bitch." Her style uses the powerfully divine love sorcery. Unfortunately this means she compels or manipulates others into loving her for her own selfish ends.

In a direct, balanced love encounter, both power and love are balanced. Circe disturbs the balance with love magic, which is her way of arousing love through power, rather than the spontaneous awakening of love which has power over both of the pair. Circe is thus a predator. She is imaged as continually circling on the perimeter of the human world. From her borderline world she can transform mortals, just as Persephone transforms them, through a death-like regression to an ugly, animalistic creature, full of violence and dark passion. She is the ultimate "fatal attraction."

The ancient Babylonians had a ritual of sacred prostitution where each woman was required to serve as a temple harlot once in her life. Through this service she received the highest honor and no social reproach. Through this impersonal sexual act, she submitted to her instinct, and renewed her virginity in the sense of being one-in-herself.

She recognized her psychological virginity and received the revelation of love as distinct from desire. Each woman required personal experience of this phenomenon in order to be redeemed. Some people might be pursuing contact with these life-giving symbols today, through both profane and sacred channels.

The ritual of Aphrodite has moved from single's bars to the health club, to wherever safe or unsafe sex can be found. When one was in the ancient temple, those who came to be renewed by Aphrodite's sacred prostitutes were frequently the dregs of the sexual pool;

those who were impotent or could find no one else for themselves. Acceptance of sex with someone based solely on availability has an archetypal background.

Those with strong Artemis qualities can balance out with an intensification of the Aphrodite principle and vice versa. She does not always require unrestricted sexuality. Internally, it indicates a profound relationship to that which has beauty, an aesthetic appreciation of the highest order. Externally, it means extending ourselves toward the object of our desire with love and abandon--following our "Bliss." Aphrodite not only engenders, but enlarges life.

Rapport is an empathetic or sympathetic relation or connection with another. It is experiencing the world through the same portal as the person you're communicating with. Rapport doesn't require understanding. Sharing rapport is like jumping inside another's nervous system and suddenly understanding the way they make sense of reality. Rapport is the ability to bond instantly with others. In rapport like attracts like. Rapport reverses the axiom that opposites attract.

When the initial challenge of opposite attraction wears off, we're left with someone who thinks, acts and behaves unlike what we consider the norm. Consequently, that means someone who will mostly be out of sync or rapport with us. Look no further for the cause of broken relationships.

If you are involved with someone and a good part of the time you don't understand each other, you are out of rapport. And if you are out of rapport, the chances of your relationship surviving are slim to none. In fact, the duration of your relationship may be a testament to your persistence and grim intention. If you happen to fall in love with a person with whom you have no rapport, you are in a no-win situation, destined for failure.

If you want to love someone who see things differently, or you want to sell yourself or your ideas to those whose maps of the territory are not in alignment with yours, you will have to do something you never consciously did before. That is, create rapport with them by being like them. People have rapport with others because of the reflection of themselves they perceive.

When we "fit" well with someone we are more at ease than with someone who is incongruent with us. We must relearn our communications strategies so that we relate to others in a manner that fits their map of the world. That is what rapport is all about, (Brooks, 1989). Rapport is the foundation of successful, unencumbered communication. It is essential to being an understanding and empathetic partner and an exciting and satisfying lover.

Empathy in tantra occurs through the immediate 'pairing' or 'coupling' of the bodies of self and other in action. Through our mirror neurons we are paired in the biological depth of empathy, at the level of passive association of living bodies of self and other in embodied action. At the level of intentionality and conscious mood-matching and emulation and participation mystique we participate consciously in the tantric process.

The empathic grasping of another as animated by his or her own fields of sensation has been called 'sensual empathy' or 'sensing in.' It is a natural ability in all great lovers. The

wider one's ability to sense-in pleasure the greater become the number of possibilities for fulfillment.

Emotions are our value feelings. We experience emotion only in regard to that which *matters*. Emotions mark importance, meaning. It is emotion or value feeling that makes one experientially aware of one's personal self, the depths of the 'I' from which emotions arise. Emotions, as value feelings, make possible the evaluation of oneself and the world. Emotions anchor us to the here and now. The ability to perceive how a situation affects the well being of all and react appropriately, meaningfully is the basic emotional faculty of empathy and the basis of morality. Values transcend personal concerns.

Keywords for Aphrodite and her effects include:

<p> affair affection alluring amorous attraction ardor betrayal beauty queen caress charm courtship copper deceit door dove Don Juan elegance erotic embrace enchanting fantasy glamour graceful hedonistic herpes homewrecker </p>	<p> imagination indulgent harmony growth kind longing love goddess luminous mirror nourishing passion permissive polyamorous promiscuity provocative ravish rose rapture sensual sexy spring swan seduction spring fever talent queenly </p>
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INTELLECTUAL IDEA

On the positive side Aphrodite is romantic or courtly love; on the negative side addictive love or co-dependence. These are not only patterns of behavior, but also concepts based in our belief systems and their mythic backgrounds.

Some might find the concept of romantic love the most emotional of issues, not an intellectual idea. Nevertheless, romantic love is a notion which builds certain expectations

and follows certain patterns. Romantic love began with the medieval Troubadours and their tradition of courtly love. It has so permeated our culture that it is seen as one of the most desirable forms of possession by an archetypal power--that of being "in love." This is the same type of love which we say "is blind."

This is the type of love that places the beloved "on a pedestal" through the projection of our own anima or animus. When we project this element of ourselves onto another, we experience an exaggerated adulation of the beloved with a blind eye toward their negative or shadow side. They become our all, and our attitude toward them has a syrupy glamour.

Call them what you will (Heloise and Abelard, Romeo and Juliet, Tristan and Iseult) the "star-crossed lovers" is one recurrent theme of the goddess. They are always with us in literature, movies, and real life.

She is golden or fair, and he is her ideal image of masculinity. They share the fantasy of romantic love, reinforcing the delusion of specialness. Paradoxically in this specialness we live out one of the most common patterns from the repertoire of mankind.

Courtly love idealizes the beloved in a semi-divine manner. We make our significant other a demigod. The lovers virtually worship one another. They yearn for one another when parted, and fate seems to separate them invariably.

These notions of courtly love as the ideal of fulfillment in human life still pervade our culture and produces tragic consequences in daily life. When we project our anima or animus onto mere mortals, our inflated expectations are shattered. This results in despondency, grave disappointment, disillusionment from romantic fantasies, and sometimes divorce court.

The tragedy of romantic love is that it is a hindrance to mature love. The projections of idealized romanticism are based on one's inner life, and prevent us from truly knowing our partners. Also, romantic love tends to try to perpetuate itself "when the thrill is gone," by moving from partner to partner.

The Greeks realized that no single partner could contain the power of anima or animus indefinitely. That is why they saw the divine archetypal power of love as a goddess of great force and beauty.

The great stories of literature which concern this type of romantic love usually involve a complication which keeps the lovers apart, much to their dismay. By this mechanism they are prevented from really knowing one another in depth. The fantasy images grows in strength through reverie and yearning for the beloved. There is no concrete experience to contradict the idealized image. So the projection remains always "out there" and is never seen as fascination with an aspect of oneself.

The concept of "soul mates" is an everyday belief concerning fated or romantic love. Every soul is complete and whole in its own potentiality. There may be no true soul mates, except in the sense that those to whom we may readily attach our projections seem to "fit the bill." No partner can live up to the lofty conception of the projected anima or animus. This higher aspect of the soul should be given due consideration and attention for itself.

Romantic love has an escapist quality and is strongly addictive, much like a drug. It may temporarily feel good while dulling our awareness and severely limiting our potential. Love is an exciting, intensely pleasurable stimulation which we seek intently. It can become an artificial, self-contained experience when activities, other friendships, and growth potential are sacrificed for its momentary bliss.

Unless we are prepared to deal with our personal weaknesses directly, love may become a negative emotional involvement which can never satisfy our psychological insecurity. It results in rejection, deprivation, and dissolution, even possible suicide. If constant exposure to a person is necessary to make life bearable, there can be no real romance, because of the constant threat of withdrawal.

Addictive lovers use others as objects of their gratification. They seek to possess people only to fulfill their neurotic need. Love is the opposite of this misuse of attachment. It is based on the desire to grow and expand and for the beloved to do the same.

Addictive lovers are not secure in the belief in their own value. They derive self-esteem from the lover's inflated view of them. Addictive lovers aren't necessarily improved by their relationship and tend to drag one another down. They can be toxic for one another, yet be compulsively attached.

They reject other meaningful relationships in sacrifice to the beloved. They retreat from the world into a fantasyland. They are possessive and jealous of each other's outside interests. They rarely remain friends once they split up and the enchantment is lifted.

Addictive lovers may have successive or simultaneous affairs, which are never satisfying enough. As with drug use, an addictive lover may develop a tolerance to the beloved, and seek excitement elsewhere. The constant craving is never satisfied, because it is a dissatisfaction with our own inner self. Love is used as a temporary escape from feelings of inadequacy.

Some relationships reinforce neurotic patterns in one another through forming a consensus of two, "just us against the world." This mutual brainwashing, or folly of two, is a mutual illusion which can confirm any fantasy, while inner fortitude remains unchallenged.

Breaking free of these neurotic patterns is as hard as kicking undesirable habits, and requires conscious attention and continual work. It requires a sense of self esteem, joy and competence, getting involved meaningfully with other people in an unselfish manner.

Aphrodite is also the passion in committed love, and also represents mature love. It is a form of psychological grounding, which reshapes our motivations, and teaches new methods of coping with disappointment in life. When we can find true satisfaction in wider life context, we needn't substitute one kind of compulsive relationship for another. We can meet others realistic expectations and make reasonable demands as responsible, reliable adults.

Addictive love compels us to deny our past in favor of an unknown ecstatic fantasy fulfillment. Mature love is grounded in the here and now, and lacks the neurotic compulsive quality. True love compromises, endures, comforts, satisfies, relaxes, is

consistent, and unselfish. True love is a value system which places the highest priority on mutual feelings of respect, responsibility, and follow-through. A lover must first know their deep self and be honest about inner feelings.

Aphrodite has a place in Hera's realm of marriage as the highest moment for husband and wife--the pleasure of love. Hera partakes of Aphrodite's enchanting tricks for the celebration or consummation of her wedding. When Aphrodite rises out of the sea we are transported to a transparent, bright and pure dimension. The opposites are dissolved into unity.

The paradox of the Goddess of Love is that she originates from the castrated member of Uranus, which also engenders the revengeful, vindictive Furies. Nevertheless, she represents the mystical splendor of love, the most celebrated yet least understood of emotions.

Like Hermes, the Hermaphrodite, Aphrodite can exhibit a bisexual aspect; then she is considered a god-goddess. She embodies the golden purity of male-female wholeness emerging from the union of opposite but complementary halves. Her primal magic is an enchanting deception which contains eternity in its depths if not in its duration. Her touch is warm and genuine, nurturing like the rays of the sun.

As modern people, we recognize the old Greek spirit most easily when we are captivated by love, for then we surely believe in personal deities. As we become entirely obsessed with a passionate desire for the physical presence of our beloved, we feel like a powerful force holds us in thrall.

Love is a unique emotion which transcends the needs of security and gratification, becoming an end in itself. We all need love. Love expands us in unpredictable directions and can puff us up to unpredictable proportions. Mature love is an exchange of energies, a giving and receiving which is not necessarily a 50-50 proposition.

We can experience the warm feelings of love even at a distance far removed from the object of our affection. Visualization of the beloved, thoughts of endearment, or the loved-one's name all evoke pleasant sensations, and arouse yearning. This is also the principle of Bhakti Yoga, the yoga of love. The lover yearns to search out the beloved. The goal is participation, proximity, belonging, and finally union in which the emotion of love is experienced intensely.

Mature love has three major aspects: 1) it outwardly directed from lover to beloved; 2) it is inwardly directed in that the attraction emitted by the lover is reciprocated from the beloved; and, 3) it is reflexive in that "being in love" is an inner psychic experience which has value for the individual lover in his own personal growth cycle and well-being.

The offspring of love is joy, which is experienced as that sense of well-being flooding the body and soul. There is an increase in energy and spirit, making life's burdens easier to bear. It prompts feelings of adequacy and capability, without inflating the ego. Joy has the capacity to expand into the psychic spheres of others.

But, alas, all love relationships are not so immediately rewarding, even if they are compelling or compulsive. Aphrodite, herself, was involved with many Gods and mortals in varied and convoluted relationships. Hers is a complicated group of myths involving at various time, Area, Uranus, Poseidon, Hera, Artemis, Athena, Eros and Psyche, and Priapus. She could be ardent as with Ares, unfaithful as with Hephaistos, or jealous as with Psyche and Helen of Troy.

Love is not limited solely to human purposes, but is an archetypal dynamism of its own. It is not an end in itself, but a means to return our souls to the mythic dimension. It also brings that mythic dimension into daily life. We can experience our own imaginal essence through the power of live. It is one style of emotional fantasy or divine madness.

Through love we learn to weather the bad and the good times. We come to accept the beloved for their real nature, both positive and negative. We must also accept the possibility of being wrong, and accepting that, and admitting it. We must learn how to accept freely what is given by the other, and reciprocate in an appropriate manner. This requires discrimination, keeping expectations realistic, and disappointment at a minimum. True love is not so blind, just acceptant.

Further reading on Aphrodite may be found in the following:

**THE MEANING OF APHRODITE, Paul Friedrich
GODDESSES OF THE SUN AND MOON, Karl Kerényi
GODDESSES IN EVERY WOMAN, Jean Shinoda Bolen
THE WAY OF ALL WOMEN, M. Esther Harding
AMOUR AND PSYCHE, Erich Neumann
WE!, Robert Johnson
THE MOON AND THE VIRGIN, Nor Hall
THE GODDESS, Christine Downing
LOVE AND ADDICTION, Stanton Peele
THE CHEMISTRY OF LOVE, Michael Liebowitz
SEXUAL PRACTICES, Edgar Gregersen**

SPIRITUAL MYTH

Sacred sexuality: The overwhelming nature of sexual passion has caused it to be deified or divinized or alternatively feared as evil and demonic. It may seem odd that the same physiological act can raise us to the heights of spiritual exaltation or plunge us into guilt-ridden misery. The awe-inspiring force of desire and sex has played a role in religion, magic, mysticism, occultism, symbolism, and the whole spectrum of human psychobiological interaction with the transpersonal. Creation myths are often about divine couplings, and cyclic fertility rites dramatically reenact this original creative act.

In magical theory the opposites which exist at the universal level also exist in us as microcosms or miniature copies of the universe. Each of us as human beings contains all the opposites, symbolized as male and female, sun and moon, conscious and unconscious. In balancing and reconciling these opposites we achieve a higher unity. In marked contrast to

the general religious suppression of Eros, tantra does this by glorifying our erotic and sexual nature.

Sexuality is a sacred ritual of union through the sensual and ecstatic celebration of differences. It is the life force. Through the sexual act we seemingly transcend our isolation and physical boundaries, share in a greater reality. We discover, if only momentarily, that the Other seems to become part of oneself. Hence, the erotic language of mystics describing the apprehension of ultimate Unity, the promised reward God offers the righteous.

If this search for the Beloved is the major sexual goal, and if it can be gained only partially and fleetingly with a human partner, then it is quite natural to think of the lasting and blissful union of the soul with God in sexual terms, as many mystics have done. This concept of the soul's union with God as a sexual union is paralleled in the romantic ideal of love with a human partner as an act of worship. The overwhelming nature of desire leads us to experience it as a supernatural force. The soul abides in the heart of the flesh. In the ecstasy of sexual union we rise to the supernatural level, are possessed by a male or female deity, and mingle with the divine. Orgasm corresponds to the soul's ecstasy possessed by God.

Tantra is a path of maximally arousing or filling up the senses creating a true voluptuousness through poetry, imagination, eroticism, sexuality, trance, hallucination and exaltation. By honoring the sensual self, the metaphysical nature of surrender to the erotic impulse is experientially revealed.

How can we escape from the prison of self-obsession? Real love is quite different from desire, infatuation, lust, or concepts of romance. Real love means self-transcendence through mutuality and reciprocation, service to self, others, and world.

Ultimately, the refinement of sacred sexuality practices is an artistic expression, a form of creativity, even private performance art. It is a celebration of life and an end in itself. You might think the practice of Tantra requires a lot of preparation and props, but ultimately it only requires you to bring your naked authenticity to the process and be spontaneous. Enjoy the virtual experience of being Shiva/Shakti. Learn the virtues of erotic education, of sacred sexuality and how to create that atmosphere and inner focus.

There are both Eastern (Tantra, Taoism, Persian) and Western (Goddess worship, Alchemy, Courtly Love, Sex Magick) traditions around sacred sexuality. Eastern enlightenment comes in many varieties of spiritual experience and practice. They all express the pursuit of the One, or the One through the infinitely Many forms of existence, which are actually only different forms of sacred Emptiness. Tantra presents the ultimate Nondual reality as the sexual embrace of God and Goddess, of Shiva and Shakti, of Emptiness and Form.

Neither Ascent (Transcendence) nor Descent (Immanence) is final, ultimate or privileged: like yin and yang, dominance and submission, they generate and depend on each other. They find their own true being by dying into the other, only to awaken together, conjoined in Bliss. Lovers become the entire Cosmos, finding that eternity is wildly in love with the production of time. The non-dual Heart is radiating as all creation, and blessing all

creation, and singing this embrace through eternity. When we experience this in our own awareness, this union is the Nondual vision. God and Goddess, Emptiness and Form, Wisdom and Compassion, Agape and Eros, Ascent and Descent -- perfectly and blissfully united.

The God of the Ascenders is otherworldly, usually monastic, ascetic, seeking to flee the Many and find the One. It is purely transcendental, and pessimistic about finding happiness in this world, shunning time in favor of eternity. Ascension is generally a *via negativa*, dampening the senses and strictly channeling internal perceptions through emptying, devotion, or concentration.

In the other approach practitioners of Descending find the divine embrace through the Many. It is in love with the visible, sensible God, and sometimes Goddess. It is a God of pure embodiment, of pure immanence, fascinated with diversity, and finds its glory in the celebration of diversity. Great variety is the goal of this God. It celebrates the senses, and the body, and sexuality, and earth. It is creation-centered spirituality where All is divine. Emptiness and form are not-two. Emptiness is the immanent ground of all Form.

Tantra is perhaps the oldest form of Eastern alchemy. According to tantric philosophy the whole universe is built up of and pervaded by basic forces which are in intimate and intricate union. These forces, named Shiva and Shakti, are personified as male and female deities. Of this divine pair, Shiva is the subordinate one, for it is the Female Principle that ultimately underlies all manifestation. There is a tantric saying, "*Shiva without Shakti is a corpse.*"

The core experience of Tantra is revelation of its sexual secrets. Sexual union symbolizes the quintessence of the elements. Sacred sex reveals eternal truth and transcendence. It is a way of redemption -- union of the personal self with the transpersonal Self. The Diamond Body is the crystallization or stabilization of the archetype of the universal Self as a permanent part of the individual psyche.

Tantra is a philosophy, a science, an art, and a way of life in which sexual energy is consciously and creatively utilized. The hidden potency of the sexual act is the blueprint or seed of all creativity. When we understand the practical teachings of Tantra, a whole new perspective and experience of life opens. Tantra is a process that fosters the holistic harmonization of the male and female elements of our psychobiological self, ameliorating the war of the sexes. Through rapport and empathy we come to understand the Other. Empathy needs a face! Devotion needs a face.

Psychologically, there is a harmonization of the inner-mate archetypes of *Anima* and *Animus*, soul-figures which function as guides to deeper regions of the psyche. They lead to wholeness, integration, self-actualization. In Jungian psychology a man's inner feminine self is termed *anima* or soul; a woman's masculine component is called *animus* or spirit. Their merging creates a psychological and spiritual androgyny, another expression of wholeness.

Western forms of Tantra include a series of Sex Magick rituals designed to bring the individual to self-realization. The central aim of Western magic is to attain or stabilize the

emergence of Knowledge and Conversation of the Holy Guardian Angel, or the daemon, one's true spiritual identity. This implies drawing closer to the consciousness of one's authentic individuality, in contradistinction to the active conscious personality. We can achieve a form of sacred marriage with the inner mate, known in alchemy as the *coniunctio*. This union produces a Magickal Child that symbolizes our potential for realization of the Higher Self, self-actualization.

These western alchemical goals and procedures paralleled Eastern alchemy, with its concern for the elixir of immortality and the extraction of spirit from matter and its liberation through meditation. Chinese alchemy is a mixture of alchemy, kundalini and tantric yoga. Its secret is the great creation of a golden fetus which represents the seed of enlightenment.

The Chinese view is that every individual possesses a central core that is an aspect of the universal Tao. In the Tao, the principles of opposites yin and yang are united. Spirit and soul together make up the personality and vie for supremacy. The goal of Chinese alchemy is to free the spirit from its entanglements with instinctive drives and emotions by providing a place in the human body where the primal spirit may crystallize and gestate. The beginning of creativity is called prenatal, (undivided yin-yang).

Personal spirit is joined with transpersonal spirit and soul then reunited. The product of this union is called the Golden Flower or the Elixir of Life, literally Golden Ball or Golden Pill, which ensures the survival of the individual after the death of the body. "Circulation of the Light" refers to repetitive cyclical mixing of spirit (psychic) and soul (physical) energies, of the the positive and negative principles, to create the "yellow bud" or "mysterious pearl."

Through a *coniunctio*, inner copulation of positive and negative "crystallization" occurs as the appearance of inner light, white like moonlight. In the next step, the resulting light is reddish yellow. The union of the two lights produces the immortal seed. Golden light within the white light between the eyebrows means primal spirit is forming the immortal fetus and the Elixir of Immortality. The primal spirit emerges from the fetus and leaps into the "great emptiness" through the gate at the top of the head, forming an indestructible Diamond Body. In sex magick, the same is known as the Babe in the Abyss (of the Transcendent Imagination).

In magical theory a sexual working will not succeed if the aspirant is swept away in the thundering surf of desire and orgasm. When partners are in balance, neither strives for pleasure independently of the other. Mastering the force we have aroused, we can direct it at an objective, such as enhancing integrity, clarity, and wisdom. The element of pleasure is secondary; any idea of shame is banished. It is a means to the goal -- sacramental significance, not the goal itself.

In Virtual Tantra, there's no Reality, only perceptions of flowing process-- and refined perceptions can enhance the ecstatic state for unique expressions of self-fulfillment and spiritual experience. All attitudes and thoughts are psychobiological events, and a shift to the tantric perspective allows you to enter the virtual realm of sacred sexuality, to break down barriers between the ordinary and the extraordinary, to embrace the Divine.

The acts of the lovers mirror the primordial creation and subsequent fecundity. In desiring his opposite, the Supreme Being impregnates Nature. The attraction of the two principles for each other engenders all life. Neither asleep nor awake the spirit is set free by perfect exhaustion of the body. Through tantric sex a twilight state is produced. Then there is a dramatic paradoxical shift from sympathetic arousal to the afterglow of parasympathetic tranquility. This "calmed violence" is the essence of the Real.

Coniunctio is an alchemical term symbolizing the unification of opposites, like yin and yang unite in the Tao. When the opposites to be united are the masculine consciousness and the feminine unconsciousness, embodied symbolically as lovers, the union is termed the Royal Marriage. This royal marriage of the Alchemist and his *Soror Mystica*, the King and Queen, sun and moon energies is a transcendent symbol of the self and embodies psychic totality, or wholeness. Caresses are a way to wisdom.

This psychosexual energy is the principle element behind contemporary magic. It is known as kundalini, or the serpent power. Sex is the single strongest intensive, euphoric, even hallucinatory natural emotion alterant available, channeling the sexual energy into a mystical process of self-development. It is the foundation of Tantra.

The spectrum of tantric practices includes not only sexual trance, but physical culture, breath control, superconcentration, mental and spiritual discipline, and the mystic arts. Much like Western magic, tantra employs candles, incense, bells, magical wands and chalices, spells, magic circles or mandalas, bodily postures, occult gestures, symbolical designs, and words of power. These are employed to enhance and bring bodily functions under the control of the will and exert a subtle inner alchemy. There is a hermetic distillation of a quintessence from the bodily fluids which reinvigorates the physical body.

Tantra works within the natural cycle of ergotropic and trophotropic processes, governed by the sympathetic and parasympathetic systems. They mediate cycles of arousal and calm, and are therefore implicated in a variety of mystical experiences and also disorders which display states of hyperarousal and hypoarousal. They are mediated by the neurotransmitters noradrenalin and serotonin. The interhemispheric balancing mediates the harmonization of the left and right hemispheres of the brainmind. They mediate fight-flight responses, and pain-pleasure cycles. They can be chemically related to cycles of inflation, desire, acting out, guilt, remorse, high wellbeing, self-acceptance, and self-esteem. At their extremes, meditative and exalted states reflect as psychological and physiological paradox.

An even deeper, more therapeutic level of rapport available to lovers is a shamanic state we can call co-consciousness. Through it, you can blend your sacred energies, your soul energies, by mixing your energy fields in the sexual sacrament. We've seen how hypnotic realities -- spontaneous and induced -- influence us consciously and unconsciously at the physical, emotional and mental or mythic level.

Co-consciousness, the shared virtuality of the journey process, is a telepathic rapport wherein both participant's alpha and theta brainwaves become synchronized or entrained, in essence, into a single holographic biofield. Co-consciousness might be measured via the observation of spontaneously shared, matching or resonating brainwave frequencies. It is

very likely to be present in lovers after mutually satisfying sexual experience, in the "afterglow" or reverie period.

Western, Hindu, Buddhist and Taoist alchemy have made extensive use of the sexual act as a means of personal transformation, culminating in a celebratory Royal Marriage with the Cosmos. Like the Taoists, Western alchemists have always worked with a female partner, the *Soror Mystica*, mystical sister or wife, who is the living embodiment of the Feminine. The Great Work can not be done without her.

CULTURAL COUNTERPARTS

Venus (Roman)

Hathoor (Egyptian)

Astarte (Phoenician)

Ishtar (Babylonian)

Freya (Nordic)

Lalita (Hindu)

Xochipilli, Tlazolteotl (Mexican)

DIALOGUE WITH APHRODITE

We all experience the personal aspects of Aphrodite as love and lust, and all forms of sensual pleasure. Neither men, women, nor the gods were immune to the charms of this goddess. In women she appears as the irresistibly attractive "other woman," mistress, flirt, or gold-digger. She creates the Don Juan type of personality. More positively she manifests in the deep physical and spiritual love between spouses, and in the perfect host or hostess, socially.

In projection, she appears as that other whom we find irresistibly attractive and sexy, despite social sanctions against such feelings. Through invasion or possession, we become that magnetic personality. Those who act out her promiscuity expose themselves to the dangers of various venereal diseases, including aids, legacy of the sexual revolution.

By ceasing to identify exclusively with this archetype, we can dialogue with her in active imagination. She can inform us of the subconscious aspects of our relationship to our own sexuality. Aphrodite is one of the most active and pleasantly aggressive of the goddesses, so she is easier to connect with than a remote goddess, like Artemis.

When anima is projected in the physical world, she appears in three stages of development: 1) naive or elementary, 2) manipulative flirt, 3) conscious or inspirational. Aphrodite corresponds with the sophisticated manipulator, she uses her sexuality to get what she wants--that is her script and game. She is no innocent thing, unaware of the devastation her charm can wreak. She knows what she has and uses it to her advantage at every chance. She is dark, full-blooded and passionate.

When we are unconsciously identified with her we are controlled by her unconscious power motives. Someone may lure us into an enchantment by being very charming at first. Perhaps the aim is immediate sensual gratification, or worse, aiming to disrupt a marriage. This type then uses seeming indifference to make themselves more desirable. They use wiles

and tricks to attract another's attention, gifts, and strokes. They deliberately exploit the anima/animus projections of another onto themselves, using it for personal advantage. This is the motivation of the flirt.

In an egotistical identification with Aphrodite, a person becomes a lady-killer or man-killer, the stud, sex kitten, gigolo, whore, or other role-bound image. The strength of the identification depends on what others archetypes are at work in the soul.

For example, a strong Hera aspect would constantly be urging toward marriage rather than remaining as mistress or philanderer; Athena would caution consideration of the implications on career of promiscuous behavior or reputation; Artemis would move us to be more modest and pious if not chaste. On a more pragmatic level, Artemis might say that to steal another's man violates the sisterhood all women share.

Considering the various aspects and manifestations of Aphrodite, think back over all the ways she has entered your life over the years, creating pleasure or leaving a trail of pain. Remember your sexual awakening, first love, your rivals, attention-getting gambits. Consider what areas of your life are in disharmony with her principles, or where you may have identified with her too exclusively. Consider how your attitudes toward sexuality may have changed over different periods in your life.

Sitting quietly in a dimly lit room with your journal open, visualize any of the familiar images of Aphrodite or Venus from sculpture and paintings of the masters. Alternatively, she may take a modern form as an admired actress or actor whom you think is irresistible, but this mortal form could never carry all of the archetypal potencies, so it is best to work toward visualizing a traditional forms. You may also use a Tarot card such as THE EMPRESS, which corresponds with her.

Greet her and begin discussing those questions that are unresolved regarding your physical and aesthetic passions. Then let her speak about any subconscious patterns she may know about you. Be careful--she may try to seduce you or use her wiles in any number of ways. She will guard any attention you shower on her jealously, unless you inform her about certain aspects of your mortal life. Let her know your human limitations and your ethical standards within which she must learn to operate. She is passion personified.

APHRODITE IN YOUR LIFE

- 1. What were your emotional reactions to your first sexual experience?**
- 2. Have you ever fallen in love-at-first-sight? Did the other reciprocate? How long did this feeling last? Did it develop into mature, realistic love?**
- 3. Have you ever been addicted to any sensual pleasures?**
- 4. Have you ever felt insecure about your looks or attractiveness and been compulsively driven to prove that you were sexy or desirable ? What effect did this have on those around you?**
- 5. Were you ever the "other woman" or "other man"? How did you feel about it?**

6. If you have ever been "dumped" by a lover for another, what qualities of the goddess did that other embody that you weren't manifesting with your partner?
7. Is there a "lost love" for whom you still yearn or feel nostalgia?
8. Are you considered a vain person by friends or foes? How much time and money do you spend keeping yourself attractive? Are you frequently before the mirror, primping and fussing? Do you worry about the physical results of aging?
9. Is courtship or romance an extremely important aspect of love to you. What types of situations do you consider romantic?
10. Describe your romantic ideal: age, style of dress, behavior, education, income bracket, etc.
11. How many times a day do you become conscious of your sexual fantasies? Do you dream about sex frequently? Describe a recent sexual fantasy or dream.
12. How do you feel about pre-marital and extra-marital sex? Have you felt differently about this at other times, depending on your evolving morals or whether you were married or single at the time? Do you feel different about sexual standards for yourself and others?
13. Have you ever had a strong physical attraction for another who was socially forbidden to you--a teacher, doctor, employer, psychotherapist, etc.?
14. Have you ever had to learn how to sublimate sexual feelings into a more platonic type of relationship? or toward a higher ideal than personal desire?
15. Have you experienced the excitement of illicit or secret sexual relations? Were you addicted to this intense feeling of potential danger? What events brought the situation into the light of scrutiny by others?
16. Do you feel guilty over past sexual encounters or experience shame for past sexual adventures you might now consider immoral or ill-advised?
17. What is the balance between power motives and devotional love in your current relationships? Do you try to manipulate your lover(s)?
18. Do you use affairs or sexual fantasies to escape from the pressures of other aspects of life which seek your immediate attention for your development?
19. How are your mothering and nurturing qualities being used right now? What creative projects are growing and developing? What are you attracting to you? Who is inspiring and nurturing you? How are you indulging your senses?

*Sophisticated Athena sprung forth steel-eyed and tall;
Concerning cultural awareness, she wisely counsels all.*

CHAPTER IV: THE EMPEROR

ATHENA



Athena is a goddess who presents us with a vision of calm majesty with an investigative mind -- the domination of intelligence over passion. Her political astuteness shows in her capacity for wise rulership or administration. She embodies a wide range of activities which revolve mainly around the practicalities of city-life in its organizational aspects. She teaches us respect for authority and leadership, learning to act in a kingly manner.

She is thus the spirit of civic pride and cultural awareness. She is an ambitious executive, familiar with power. Embodying both spirit and intelligence, she also presides over the domain of higher education, universities or academia. On an even higher arc, she represents the inspiring power of divine wisdom, or Sophia.

From the historical perspective of ancient Greece, Athena was originally a patroness of the fortress-palaces of the Minoan and Mycenaean cultures. From these she derived her traits as protector of the household, and teacher of handicrafts including weaving and spinning.

She may have originally been a variation of the Mediterranean mother-goddess whose virginity was periodically renewed. Eventually she became a symbol for perpetual maidenhood, reserving herself for almost exclusively mental pursuits. She shares virgin-goddess status with Artemis and Hestia.

When the Greeks came to the Mediterranean, they probably brought their Valkyrie-like martial maiden goddess with them. She was promptly amalgamated with the local goddess into a composite figure. In unstable times the protector of the household needed to be practical on the lines of defense.

Her role as palace goddess did not stress her mothering qualities, but rather her practical skills including all household arts and crafts as well as wisdom or intuition. She could be a wily strategist or tactician when the need arose, directing the defense of her domain.

PHYSICAL FORM

The physical representation of Athena is community life, in general -- civilization, the polis, community action. She is also the competitive spirit. She fosters the reflection that aims at certain victory.

She is the spirit of achievement, competence, and action in the world. Strength, courage and worldly wisdom are not exclusively masculine attributes. She gets us out there to win and gives us the heart to do so, and the wit. She is a teacher, not in the sense of guru or wise woman, but of mentor or helpful guide in the arts and crafts which civilize human life. In her most tangible aspects, Athena is an extremely practical goddess. She has organizational capability and teaches skills as well as wisdom and philosophy. She is a "worker" in one of her aspects, but she is a trained worker in particular.

Her teaching develops experts, from the expert tradesman to the expert thinker or philosopher. She is the patroness of everyone who is good at their job. Her talent is lent to the jeweler, weaver, shoemaker, and seamstress. She inspires the mason, the miller, the carpenter, and the domestic worker. She also bolsters the instructor, politician, soldier, and tactician.

As divine patroness of all city-dwellers, she manages the affairs of a prosperous proletariat in an orderly fashion. Masculine skills, such as shipbuilding and engineering, and new technologies like information processing are her special interests.

The skills of persuasiveness through public speaking are her forte. She values skill in word and deed. In almost all cases her clear-eyed sagacity is intelligently directed toward practical, concrete goals. She says, "Let's get it done," whether it is urban renewal or economic development.

On the psychological level she is the prototype of the artistically creative woman -- soul made manifest in artistic realization. She represents the anima in both men and women -- feminine creative power. She is The Feminine as both spirit and soul. Her loving contains no trace of sexual jealousy, so it is not possessive.

You may find her in your dreams when you are exploring uncharted territory alone. She is the One in us who struggles against all odds, or risks adventure in foreign environments. She is the assertive goddess, who does not let femininity stand in the way of what she wants to accomplish or explore.

She supports heroic striving or upward mobility; she is defensive and even militant about it. She handles practical affairs in a clever way, to assure competence, achievement, and victory. She is the power to confront the problems of the "real world." She provides bright ideas, strategies, building plans, and wise counsel.

Occupations include,

<p>architect business woman carpenter city planner city counsel</p>	<p>philosopher printer producer professor psychologist</p>
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counselor diplomat engineer facilitator mayor mason mentor	sociologist student teacher technician urban planner weaver worker
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EMOTIONAL IMAGE

Athena was the Kore, or archetypal maiden of the Athenians. Her symbol was the new moon. She was typically pictured in this aspect as a girl of about 12 years of age. Since Athena was the patroness of the city, girls of this age could bring great honor to their families by serving in her temple, so they received abundant, loving devotion from their fathers as well as mothers. Aren't we all proud parents when our children do well at school or college?

The Athenian personality has a feminine content which is oriented toward the masculine, or father-principle. She embodies the projection of a positive transformation in the character of Zeus, her father: inspiration. She is extremely helpful to the masculine. She develops mentor relationships with strong men with mutual interests. This is partly because it is in her nature to mediate for the masculine and partly because of a need to defend herself against the enormous power exerted upon her by the pressures of her father-complex.

Athena is one of the few goddesses (including Hestia and Artemis) who is immune to the enchantments of Aphrodite. Therefore her love-life is virtually non-existent. She is a companion and advisor to man, but usually without erotic involvement. She can help man relate to the depths of his unconscious in a profound and inclusive way.

Her functions include building conceptual bridges which help men understand their feelings. They can relate to her because she understands the thought patterns of logic so well. An Athena-ruled woman generally has a good relationship with her biological father. However, she is so identified with him that it may interfere with her ability to give herself to her human lovers. She is sisterly, understanding, sympathetic and supportive, to be sure. But a good portion of psychic energy will be reserved for "pleasing Daddy." This is why Athena promotes the perpetuation of city-life, culture, and various crafts. This ensures the continued dominion of Zeus.

In terms of time perception, Athena sees time as linear: the past gives rise to the present which then gives birth to the future, in an orderly succession. Proper evolution of events is ensured by the continual reevaluation of development patterns. In general, she places paramount importance on the orderly flow of events, and the systematic application of clear principles of behavior. She has a high ethical standard which is maintained consistently. This fantasy of control, taken to the extreme, can be excessive.

Athena possesses the drive of a militant or political activist, but all this heroic striving and ego-building may be over-reactive to a fear of being reabsorbed by the father. By defending

the patriarchal order, she imitates her father's spirit. This is her shadow-self -- the co-opted woman in the service of patriarchy in deep denial. Denial leads to a pervasive feeling of ambivalence. Freed up, this energy tied up in the shadow-self is transformative. When this energy flows, it is creativity, inspiration, empowerment.

Too much of this identification is a threat to her womanhood. The father may not really control Athena, yet she fantasizes that he does and creates her reality. Do we live our authentic anima nature or our father's fantasy of the anima archetype? She can become independent of him. She needs to realize that strength, courage, and worldly wisdom aren't only masculine attributes. There is feminine wisdom, strength, and confidence, too, as well as intuition.

On the psychological level, Athena is the prototype of the artistically creative woman -- the soul made manifest in artistic realization. For men and women, she is the spirit of achievement, competence, and action in the world. Athena represents the Anima in both men and women -- feminine creative power -- feminine as both spirit and soul. There is nothing possessive in her love, including no sexual jealousy.

Athena is strong in the woman who feels like she determines her own path. Even her dreams depict her as an adventurer, explorer, and seeker. She struggles through unfamiliar terrain, asserting herself against obstacles and actively overcoming them. It sounds heroic, yet is an inherently feminine Way of being.

The only story of romance for Athena is with her companion, or co-worker, Hephaistos. It is no true marriage, because her nature is to remain free of entanglements. He wanted to marry her, figuring that they could be united by their common interests, their work, and their pride of craftsmanship. He asked Zeus for her hand, and Zeus agreed, since they were workmates.

But Hephaistos could not overcome Athena's natural repulsion toward his boorish clumsiness. In other words, they were sexually incompatible--not one another's type. Yet something strange occurred in the meantime. When Athena repulsed Hephaistos in an attempt to rape her, his seed fell to the earth.

The earth became fertile with this seed and an infant son was born called Erichthonis. He was reared by nurses for a while, then Athena took him for her own to raise. Athena is thus like an independent working woman of today whose deepest desire is to have a child. If she is unwed (or even if married), she may conceive via technology. But not wanting the trouble of a young child to dominate their lives, they are left to daycare or private nurses.

Her ability to feel may be impaired; she simply "does not have time for such things." This may cramp her full expression as either Virgin or Mother. So her overprotectiveness may seek to protect the core of her femininity. But when she transforms the archaic elements of the masculine spirit, civilized life flourishes. She protects against its ravaging impulses.

Athena, as the basis for a civilized state, or symbol of empire, has been perpetuated through history in the figures of other goddesses of the motherland, "Roma", "Britannia", Columbia, and the Statue of Liberty. On a more daily level, she helps us "get it all together" when facing the outside world, whether we are weaving our life story, passing

final exams, or preparing a manuscript for publication, etc. She protects our civilization from the eternal threat of passions and the consuming fires of the spirit. She makes sure we don't turn into sexual maniacs at work, or walk off the job to follow a religious calling.

She provides the boundaries within which culture thrives. She inspires us with wisdom, but keeps practical concerns in view. She is the motivation of those with their "feet on the ground, and heads in the clouds." Integration is her ideal. Because she is extroverted in her creativity, she fosters deep friendships.

Athens is the bedrock of modern society; they gave us democracy. Athenians were also among the first to purge their emotions in the theatre. They wanted to be a model for how to live. Historians say the greatest Athenian contribution to literature was the rise of drama. In modern life, theatre and film still help us understand the zeitgeist of our times. They help us define who we are, and to define and re-define our history as a people. Certain films act as cultural milestones, and help us understand emotional situations beyond our personal experience.

Greek drama was a product of the worship of the god Dionysus. By the fifth century B.C., a drama festival to honor this god had become traditional. How did religious ritual evolve into Greek theatre? The theatre of Ancient Greece evolved from religious rites which date back to at least 1200 BC. The Cult of Dionysus, which probably originated in Asia Minor, practised ritual celebrations which may have included alcoholic intoxication, orgies, human and animal sacrifices, and perhaps even hysterical rampages by women called maenads.

The cult's most controversial practice involved, it is believed, uninhibited dancing and emotional displays that created an altered mental state. This altered state was known as 'ecstasis', from which the word ecstasy is derived. Dionysiac, hysteria and 'catharsis' also derive from Greek words for emotional release or purification. Ecstasy was an important religious concept to the Greeks, who would come to see theatre as a way of releasing powerful emotions through its ritual power. Over time, the rites of Dionysus became mainstream, more formalised and symbolic. The death of a tragic hero was offered up to god and man rather than the sacrifice of say, a goat.

By 600 BC Greece was divided into city-states, separate nations centred in major cities and regions. The most prominent city-state was Athens, where at least 150,000 people lived. It was here that the Rites of Dionysus evolved into what we know today as theatre. Thespis of Attica added an actor who interacted with the chorus. This actor was called the protagonist, from which the modern word protagonist is derived, meaning the main character of a drama. Introduce a second speaker and one moves from one art, that of choric chant, to another, theatre. Thespis is said to have performed in Athens about 534 BC. and his name has achieved immortality in theatrical jargon - 'actors' and 'Thespians' are synonymous.

In 534 BC, the ruler of Athens, Pisistratus, changed the Dionysian Festivals and instituted drama competitions. Thespis is said to have won the first competition and in the ensuing 50 years, the competitions became popular annual events. A government authority called the archon would choose the competitors and the *choregos*, wealthy patrons who financed the

productions. Even in ancient Greece, the funding of the arts was a way of tax avoidance. In return for funding a production, the choregos would pay no taxes that year.

During this time, major theatres were constructed, notably the theatre at Delphi, the Attic Theatre and the Theatre of Dionysus in Athens. The Theatre of Dionysus, built at the foot of the Acropolis in Athens, could seat 17,000 people. During their heyday, the competitions drew as many as 30,000 spectators. The words theatre and amphitheatre derive from the Greek word *theatron*, which referred to the wooden spectator stands erected on those hillsides. Similarly, the word orchestra is derived from the Greek word for a platform between the raised stage and the audience on which the chorus was situated.

Plays were performed in the daytime. The annual drama competitions in Athens were spread over several, entire days. Actors probably wore little or no makeup. Instead, they carried masks with exaggerated facial expressions. They also wore *cothornos*, or buskins, which were leather boots laced up to the knees. There was little or no scenery. Initially, most of the action took place in the orchestra. Later, as the importance shifted from the chorus to the characters, the action moved to the stage.

Between 600 and 500 BC, the dithyramb had evolved into new forms, most notably the tragedy and the 'satyr' play. Tragedy, derived from the Greek words *tragos* (goat) and *ode* (song), told a story that was intended to teach religious lessons. Much like Biblical parables, tragedies were designed to show the right and wrong paths in life. Tragedies were not simply plays with bad endings, nor were they simply spectacles devised to 'make 'em laugh and make 'em cry.' Tragedy was viewed as a form of ritual purification, Aristotle's *catharsis*, which gives rise to *pathos*, another Greek word, meaning 'instructive suffering'. They depicted the life voyages of people who steered themselves or who were steered by fate on collision courses with society, life's rules, or simply fate.

The tragic protagonist is one who refuses out of either weakness or strength to acquiesce to fate: what for us now might better be described as the objective realities of life. Most often, the protagonist's main fault is *hubris*, a Greek, and English word meaning false or overweening arrogance. It could be the arrogance of not accepting one's destiny (Oedipus Rex), the arrogance of assuming the right to kill (Agamemnon), or the arrogance of assuming the right to seek vengeance (Orestes). Whatever the root cause, the protagonist's ultimate collision with fate, reality, or society is inevitable and irrevocable.

Tragedy did not develop in a vacuum. It was an outgrowth of what was happening at the time in Athens. One hand, Greek religion had dictated how people should behave and think for centuries. On the other, there was a birth of free thought and intellectual inquiry. Athens in the fourth and fifth centuries BC was bustling with radical ideas like democracy, philosophy, mathematics, science and art. It boasted philosophers like Plato, Socrates, Aristotle, Epicurus, and Democritus. There were the first known historians Thucydides and Herodotus. The scientists and mathematicians like Thales, Hippocrates, Archimedes, and later Euclid (euclidean geometry), Pythagoras (the Pythagorean theorem), Eratosthenes, Hero (the steam engine!), Hipparchus and Ptolemy.

In these respects -- a blossoming of free thought after years of religious dicta -- ancient Athens resembled Renaissance England, which not coincidentally spawned the next great

era in theatre. In essence, the ancient Athenians had begun to question how nature worked, how society should work, and what man's role was in the scheme of things. Tragedy was the poets' answer to some of these questions -- How should one behave? How can one accept the injustices of life? What is the price of hubris? Read a soliloquy from a Greek tragedy, or from Hamlet or Macbeth, and what you will hear is these questions being asked.

Greek mythology is the legends and stories behind the Greek gods. The earliest Greek dramas, especially those by Aeschylus (525-456 BC), drew their plots and characters from these myths. The Tragic Hero or Heroine is someone who has achieved, or who has the ability to achieve, greatness but who through a weakness, or tragic flaw in his character, falls into the depths of misery and often to his death. Audiences seeing this happen are supposed to feel a purifying of the spirit as they feel pity for the character because of the terrible woes he has suffered, and fear because of their increased awareness of forces in the world powerful enough to topple even the most mighty and most admirable of men.

Caught up in events of great magnitude, spectators are imaginatively liberated from all that is dull, petty and mean in life around them—they are stirred by the spectacle of human greatness, of man daring to reach out beyond reasonable limits in quest of some glorious ideal. Even when he fails, as fail he must, there is still, for the audience, the satisfaction of having viewed nobility in action.

The original sin of the Greek tragic hero is *hubris*, believing that one is god-like. Nobody can be tempted into hubris except one who is exceptionally fortunate. Sometimes he can manifest his hubris directly, but this does not change his character in any way, only he is punished for it by being made by the gods to sin unwittingly or involuntarily.

In Greek tragedy suffering is a visitation from heaven, a punishment imposed upon the hero from without. Through enduring it he expiates his sins and ends reconciled to the law, though it is for the gods not him to decide when his expiation is complete. In modern tragedy, on the other hand, this exterior kind of suffering which humbles the great and erring and leads them to repent is not tragic. The truly tragic kind of suffering is the kind produced and defiantly insisted upon by the hero himself so that, instead of making him better, it makes him worse and when he dies he is not reconciled to the law but defiant, that is, damned. Lear is not a tragic hero. Othello is.

One of the things which become clear when one reads the poets or dramatists of ancient Greece is that the world and Gods they deal with are for them immensely real and living. The gods, the supernatural beings that so frequently appear and direct man's life and thought, were not for them, as they may be for us, mere figments of the imagination, poetic invention and so on. They are living, dynamic forces, terrible and terrifying realities. They are revealing and expressing the inner movement and operation of cosmic powers. And the sense of the activity of such powers seems to pervade the whole of life. The expression of this god-haunted, god-tormented universe in which they lived by poets and dramatists meant that there was an immediate, urgent, and vital connection between literature and life. It is expressed in three key terms.

HAMARTIA: - An error of judgement. Hamartia, derived from a Greek word meaning fault is sometimes known as the tragic flaw because it represents a fatal weakness that causes the downfall of a protagonist in tragedy. This hamartia may be caused by inherited weakness, by faulty character traits, or by poor judgement; whatever the cause, the result is action or inaction, that leads to destruction or death.

HUBRIS: -Arrogance; excessive self-pride and self-confidence. Hubris, a Greek term for insolence, referred to the emotions in Greek tragic heroes that led them ignore warnings from the gods and thus invite catastrophe. Hubris is that form of hamartia that stems from overbearing pride and self-assumed superiority.

CATHARSIS: -This term is from a Greek word, kathairein, meaning to clean or to purify. Catharsis refers to any emotional discharge that brings about an emotional or spiritual renewal or welcome relief from tension and anxiety. The primary idea is that an audience, any audience, filled with confusion and unhealthy emotions, such as pity and fear, comes to see a play developing make-believe actions that would be harmful if occurring in real life. The audience participates emotionally in the dramatic action and goes away psychologically cleansed, purged of injurious feelings and sensations. Literary critics have never agreed whether catharsis means that members of an audience thus learn to avoid the evil and destructive emotions of a tragic hero or that their inner conflicts are quieted by an opportunity to expend pity and fear upon such a protagonist.

In the play "*Prometheus Bound*", Terzopoulos is trying to release the human energy, hidden in the body, through stillness and immobility. The play exposes the conflict between the new and the old values in life: in the old Prometheus scale, Man needs to be united with Nature, God and the Polis, while in the new order God is the Superior Being and all creatures must obey to Him. Prometheus, as a symbol of freedom, is the one that brings to light the power of LAW, which frightens man and god, he seeks the secret key of balance between logic and instinct, between the order and the chaos but he will never find it, even when he will get liberated by Hercules.

Many words associated with theatre have roots in Greek. Theatre comes from the word theatron meaning "seeing place"; drama comes from the word dran meaning "to do". Ancient Greek theatre was a "... mixture of myth, legend, philosophy, social commentary, poetry, dance, music, public participation, and visual splendor."

Narration of a story or legend, was only a means by which the author might explore the nature of mankind. In doing so, the tragedian turned firmly away from realistic depictions of Athenian citizens to a higher, ideal level of heroic men and women. Even the gods themselves might make an appearance. However great, the human beings in a tragedy had flaws which led them to ruin. The playwrights sought to illuminate both the greatness and defects of mankind. Much has been written about the Golden Age of Greece, a time when the words of playwrights, poets, and philosophers found a wide audience. Scholars today still study their creations.

Keywords for Athena include:

achievement	inspiration
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<p> amnesty articulate astute aristocrat assertive authoritative cosmopolitan classy clever commraderie compulsive culture cyber-culture debate dignity expert finance forethought geopolitics goals globalization intelligent </p>	<p> integrity learned money market normalizing overachiever owl objective platonic polished practical pragmatic spinster state dinner stock market urbane versatile voter welfare well-informed workaholic world-citizen </p>
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INTELLECTUAL IDEA:

Athena is the archetype of the Goddess of Wisdom. She develops strategies; she is the consummate problem-solver. She has a strongly developed capacity for logical or linear thinking which serves her well in the practical world. She also has the capacity for facilitating or mediating disputes and conflicts.

Athena has her own agenda, her own priorities, and her own feminine style of rationality. As Jean Bolen has pointed out, "The Athena archetype thrives in the business, academic, scientific, military, or political arenas." Economics or financial matters is her forte. Yet, she needs to balance business with her private life, or risk one-sided development and emotional stunting. She can't live only in her head without connecting with emotions and fully inhabiting the body. One natural balance for Athena is through crafts such as weaving, sewing, or pottery.

She can be a diplomat, but her shadow-side is a manipulator, rival, and competitor. To steel herself against the onslaught of life, she armors herself in a physical sense. Holding in and tensing muscles chronically leads to body armor which distorts the free flow of energy in the body. It leads to the concretization of physical traits in the body, much like we find personality traits "solidified" as the ego in the psyche.

Her main health complaints are likely to come from stress disorders. Athena is fairly conservative in lifestyle and persona. Other than the father-complex, she is generally in good mental and physical health, if she has realized the value of regular exercise. She seeks out others to help her maintain both, readily accepting the expertise of other professionals.

She can readily be either teacher or student. When we are in school, or living the student life in a university town, we are in touch with Athena. Some of us are eternal students, always looking for something new to learn. When we go to a library, seminar, or symposium, Athena is there. She also participates in every "think tank."

An 'Atheneum' is named after the temple of Athena at Athens and now means various things including a place where writers and scholars meet. It may mean an amphitheater lecture hall, or a literary or scientific club. It is also applied to a library or reading room. Whenever we return to school for continuing education, be it in handicrafts, the arts, communication, and especially to trade or technical school, it is from the prompting of Athena. She is the prime motivator. In her service we seek to become more learned individuals and function more effectively within the community. Her temple has become the halls of academia, our halls of higher learning.

Athena's ideology is Gnosticism and Sophia is her Gnostic form. Gnosticism is the teaching based on Gnosis, the knowledge of transcendence arrived at by way of interior, intuitive means. Although Gnosticism thus rests on personal religious experience, it is a mistake to assume all such experience results in Gnostic recognitions. It is nearer the truth to say that Gnosticism expresses a specific religious experience, an experience that does not lend itself to the language of theology or philosophy, but which is instead closely affinitized to, and expresses itself through, the medium of myth. Indeed, one finds that most Gnostic scriptures take the forms of myths. The term "myth" should not here be taken to mean "stories that are not true", but rather, that the truths embodied in these myths are of a different order from the dogmas of theology or the statements of philosophy.

All religious traditions acknowledge that the world is imperfect. Where they differ is in the explanations which they offer to account for this imperfection and in what they suggest might be done about it. Gnostics have their own -- perhaps quite startling -- view of these matters: they hold that the world is flawed because it was created in a flawed manner. Like Buddhism, Gnosticism begins with the fundamental recognition that earthly life is filled with suffering. Human beings, with their complex physiology and psychology, are aware not only of these painful features of earthly existence. They also suffer from the frequent recognition that they are strangers living in a world that is flawed and absurd.

The ancient Greeks, especially the Platonists, advised people to look to the harmony of the universe, so that by venerating its grandeur they might forget their immediate afflictions. But since this harmony still contains the cruel flaws, forlornness and alienation of existence, this advice is considered of little value by Gnostics. Nor is the Eastern idea of Karma regarded by Gnostics as an adequate explanation of creation's imperfection and suffering. Karma at best can only explain how the chain of suffering and imperfection works. It does not inform us in the first place why such a sorrowful and malign system should exist.

The Gnostic God concept is more subtle than that of most religions. In its way, it unites and reconciles the recognitions of Monotheism and Polytheism, as well as of Theism, Deism and Pantheism. In the Gnostic view, there is a true, ultimate and transcendent God, who is beyond all created universes and who never created anything in the sense in which the word "create" is ordinarily understood. While this True God did not fashion or create

anything, He (or, It) “emanated” or brought forth from within Himself the substance of all there is in all the worlds, visible and invisible. In a certain sense, it may therefore be true to say that all is God, for all consists of the substance of God.

By the same token, it must also be recognized that many portions of the original divine essence have been projected so far from their source that they underwent unwholesome changes in the process. To worship the cosmos, or nature, or embodied creatures is thus tantamount to worshipping alienated and corrupt portions of the emanated divine essence.

The basic Gnostic myth has many variations, but all of these refer to Aeons, intermediate deific beings who exist between the ultimate, True God and ourselves. They, together with the True God, comprise the realm of Fullness (Pleroma) wherein the potency of divinity operates fully. The Fullness stands in contrast to our existential state, which in comparison may be called emptiness.

One of the aeonial beings who bears the name Sophia (“Wisdom”) is of great importance to the Gnostic world view. In the course of her journeyings, Sophia came to emanate from her own being a flawed consciousness, a being who became the creator of the material and psychic cosmos, all of which he created in the image of his own flaw. This being, unaware of his origins, imagined himself to be the ultimate and absolute God. Since he took the already existing divine essence and fashioned it into various forms, he is also called the Demiurgos or “half-maker” There is an authentic half, a true deific component within creation, but it is not recognized by the half-maker and by his cosmic minions, the Archons or “rulers”.

Human nature mirrors the duality found in the world: in part it was made by the false creator God and in part it consists of the light of the True God. Humankind contains a perishable physical and psychic component, as well as a spiritual component which is a fragment of the divine essence. This latter part is often symbolically referred to as the “divine spark”. The recognition of this dual nature of the world and of the human being has earned the Gnostic tradition the epithet of “dualist”.

Humans are generally ignorant of the divine spark resident within them. This ignorance is fostered in human nature by the influence of the false creator and his Archons, who together are intent upon keeping men and women ignorant of their true nature and destiny. Anything that causes us to remain attached to earthly things serves to keep us in enslavement to these lower cosmic rulers. Death releases the divine spark from its lowly prison, but if there has not been a substantial work of Gnosis undertaken by the soul prior to death, it becomes likely that the divine spark will be hurled back into, and then re-embodied within, the pangs and slavery of the physical world.

Not all humans are spiritual (pneumatics) and thus ready for Gnosis and liberation. Some are earthbound and materialistic beings (hyletics), who recognize only the physical reality. Others live largely in their psyche (psychics). Such people usually mistake the Demiurge for the True God and have little or no awareness of the spiritual world beyond matter and mind.

In the course of history, humans progress from materialistic sensate slavery, by way of ethical religiosity, to spiritual freedom and liberating Gnosis. Evolutionary forces alone are

insufficient, however, to bring about spiritual freedom. Humans are caught in a predicament consisting of physical existence combined with ignorance of their true origins, their essential nature and their ultimate destiny. To be liberated from this predicament, human beings require help, although they must also contribute their own efforts.

Gnostics do not look to salvation from sin (original or other), but rather from the ignorance of which sin is a consequence. Ignorance -- whereby is meant ignorance of spiritual realities -- is dispelled only by Gnosis, and the decisive revelation of Gnosis is brought by the Messengers of Light, especially by Christ, the Logos of the True God. It is not by His suffering and death but by His life of teaching and His establishing of mysteries that Christ has performed His work of salvation.

On the one hand, Gnostic salvation may easily be mistaken for an unmediated individual experience, a sort of spiritual do-it-yourself project. Gnostics hold that the potential for Gnosis, and thus, of salvation is present in every man and woman, and that salvation is not vicarious but individual. One needs also remember that knowledge of our true nature -- as well as other associated realizations -- are withheld from us by our very condition of earthly existence. The True God of transcendence is unknown in this world, in fact He is often called the Unknown Father. It is thus obvious that revelation from on High is needed to bring about salvation. The indwelling spark must be awakened from its terrestrial slumber by the saving knowledge that comes "from without".

The present period of Western culture perhaps resembles in more ways that of second and third century Alexandria. It seems therefore appropriate that Gnostics in our age adopt the attitudes of classical Alexandrian Gnosticism, wherein matters of conduct were largely left to the insight of the individual.

Gnosticism embraces numerous general attitudes toward life: it encourages non-attachment and non-conformity to the world, a "being in the world, but not of the world"; a lack of egotism; and a respect for the freedom and dignity of other beings. Nonetheless, it appertains to the intuition and wisdom of every individual "Gnostic" to distill from these principles individual guidelines for their personal application.

Death does not automatically bring about liberation from bondage in the realms of the Demiurge. Those who have not attained to a liberating Gnosis while they were in embodiment may become trapped in existence once more. It is quite likely that this might occur by way of the cycle of rebirths. Gnosticism does not emphasize the doctrine of reincarnation prominently, but it is implicitly understood in most Gnostic teachings that those who have not made effective contact with their transcendental origins while they were in embodiment would have to return into the sorrowful condition of earthly life.

In regard to salvation, or the fate of the spirit and soul after death, one needs to be aware that help is available. Valentinus, the greatest of Gnostic teachers, taught that Christ and Sophia await the spiritual man -- the pneumatic Gnostic -- at the entrance of the Pleroma, and help him to enter the bridechamber of final reunion.

Gnosticism helped to clarify, the nature of Jungian spiritual therapy." In the light of such recognitions one may ask: "Is Gnosticism a religion or a psychology?" The answer is that it

may very-well be both. Most mythologems found in Gnostic scriptures possess psychological relevance and applicability. For instance the myth of Sophia resembles closely the story of the human psyche that loses its connection with the collective unconscious and needs to be rescued by the Self. Many esoteric teachings have proclaimed, *"As it is above, so it is below."*

Our psychological nature (the microcosm) mirrors metaphysical nature (the macrocosm), thus Gnosticism may possess both a psychological and a religious authenticity. Gnostic psychology and Gnostic religion need not be exclusive of one another but may complement each other within an implicit order of wholeness. Gnostics have always held that divinity is immanent within the human spirit, although it is not limited to it. The convergence of Gnostic religious teaching with psychological insight is thus quite understandable in terms of time-honored Gnostic principles.

Theology has been called an intellectual wrapping around the spiritual kernel of a religion. If this is true, then it is also true that most religions are being strangled and stifled by their wrappings. Gnosticism does not run this danger, because its world view is stated in myth rather than in theology. Myths, including the Gnostic myths, may be interpreted in diverse ways. Transcendence, numinosity, as well as psychological archetypes along with other elements, play a role in such interpretation. Still, such mythic statements tell of profound truths that will not be denied. Stephan A. Hoeller (Tau Stephanus, Gnostic Bishop).

The birth of Athena, or Wise Reflection, begins with a curious story. It seems Zeus got a colossal migraine when he found out that his wife Hera had born a son through a Virgin birth. This son was Hephaistos. Not to be outdone even by Hera with feminine self-sufficiency, Zeus produced Athena directly from his cerebral cortex or forebrain. She is the queenly daughter of Light, his "brainchild," so to speak. This mystic birth of wisdom means that what was formerly unconscious is now conscious, and in the daylight world. Hephaistos split open the head of Zeus with an axe to liberate her and relieve Zeus. She emerged fully armed and majestic from the beginning.

Athena is the divine embodiment of God's wisdom. God manifests along geometrical principles when the divine begins to manifest, crossing the threshold of matter from matrix patterns to crystallizing matter. She therefore rules the alchemical quest of extracting the soul or spirit imprisoned in matter. She is the goddess of natural philosophy or physics. The medieval quest goes on today in physics and other sciences which seek to discover the hidden spirit, or "how things work." Athena gives up her secrets, her intuitions, her tricks of the trade, slowly but surely.

This quest is accomplished by quenching the fires of desirousness (i.e. Aphrodite). This doesn't mean all scientists must give up their sex lives! Rather, it implies that research is a long and tedious process, and one must not "lust for results." Success will come through persistence and the "inspiration" of technological breakthroughs, the gifts of Athena.

Sophia is the Gnostic version of Athena, which was later co-opted by the Orthodox Church and identified with the celestial qualities of Virgin Mary, mother of the spirit. For the Gnostic, she is the indwelling direct mystical experience of God -- an inspiring manifestation of divine force. This upwelling energy was depicted in eastern religion as the

Kundalini serpent-energy rising into the brain. This is the introverted experience of Sophia.

In an extroverted expression, disengaging Sophia-Athena, the feminine personification of spirit, from the embrace of Physis means to make her give up her secrets. Sophia is considered to be the sum of archetypal images in the mind of God. She is the living, breathing imagery of the Divine imagination. These prototypical patterns or ideas are like the Platonic solids which lie at the base of phenomenal manifestation. They are geometries - the invisible building blocks of matter.

Thomas Aquinas inadvertently described the quality of Athena when he said,

"...divine wisdom devised the order of the universe residing in the distinction of things, and therefore we must say that in the divine wisdom are the models of all things, which we have called ideas -- i.e. exemplary forms existing in the divine mind."

On the psychological level of soul, James Hillman speaks of Athena as meaning psychological reflection. The energy directed toward inner integration is the goddess "who grants *topos*, judging where each event belongs in relation to all other events."

Further reading on Athena is found in,

**THE GODDESS, Christine Dowing, 1983
GODDESSES IN EVERY WOMAN, Jean Shinoda Bolen
THE IMPOSTER SYNDROME, Pauline Rose Clance, Ph.D.
THE MEANING OF APHRODITE, Paul Friedrich
ATHENE, VIRGIN MOTHER, Murray Stein
FACING THE GODS, James Hillman, Ed.
THE MOON AND THE VIRGIN, Nor Hall**

SPIRITUAL MYTH:

Concerned with policies and political issues, one of Athena's spiritual cries for our generation is "globalization." The history of globalization is rooted in the marriage of religion, trade, armies, industry, technology, agriculture and banking. Long before 1492, people began to link together disparate locations on the globe into extensive systems of communication, migration, and interconnections. This formation of systems of interaction between the global and the local has been a central driving force in world history.

Global means the expansive interconnectivity of localities -- spanning local sites of everyday social, economic, cultural, and political life -- a phenomenon but also a spatial attribute -- so a global space or geography is a domain of connectivity spanning distances and linking localities to one another, which can be portrayed on maps by lines indicating routes of movement, migration, translation, communication, exchange, etc.

Globalization is the physical expansion of the geographical domain of the global -- that is, the increase in the scale and volume of global flows -- and the increasing impact of global forces of all kinds on local life. Moments and forces of expansion mark the major turning points and landmarks in the history of globalization

The globalization debate has rightly been called the grand ideological battle of the 21st century. It has pitted student activists against corporate heads, union members against environmentalists, Mexican peasants against officials of the International Monetary Fund. Their main concern: the lack of citizen participation in decisions of international economics and trade policy. Their main enemy: institutions and corporations that work outside of the purview of democratically elected governments.

In essence, globalization is redrawing the old ideological lines of the cold war. No longer do people debate the merits of capitalism and communism. Rather, issues such as international trade, corporate power, national economic sovereignty, human rights and the transformation of indigenous cultures have moved to the center of the debate. And if there is new geopolitical line to be drawn it cuts not the East from the West but the North from the South.

What is "globalization" and why should anyone care about it? There are a lot of different answers to this question, depending on whom you ask. The dominant view among people who write and speak about the issue is that globalization is an inevitable, technologically driven process that is increasing commercial and political relations between people of different countries. For them, it is not only a natural phenomenon, but primarily good for the world, although it is recognized that the process produces both "winners and losers."

There is a much deeper skepticism about the process among the general population. For example, a recent Wall Street Journal/NBC News poll found that 58% of Americans believed that trade had reduced U.S. jobs and wages, a view that is almost never expressed by commentators or those who shape public opinion. This widening gap between elite and public opinion is striking, because it is not difficult to imagine how economic globalization might lower living standards for the majority of people in the United States. For example, the idea that increasing competition from low-wage imports would drive U.S. wages downward seems only logical. And there is now a wealth of evidence, even from prominent economists who strongly favor free trade, that this has happened over the last two decades.

The fact that the real wage of the typical American worker has actually fallen over the past 25 years, as the economy had become increasingly globalized, is also an indicator that something is wrong with the process of globalization. According to traditional economic theory, wage and salary earners gain from more open trade, because they get cheaper consumer goods. But it is clear, according to universally accepted measures of wages and salaries in the United States, that for most employees these gains from trade have been more than canceled out by other forces that have pushed their pay downward.

Debate within the economics profession has yet to influence the agenda of the major policy makers or corporations, who continue to strive for increasing globalization. Who gains and who loses from this process? We can define globalization as an increase in trade and capital flows across national boundaries. What does the balance of payments include? It is divided into two parts: the balance of trade, and what economists call the current account, because it includes more than just trade—things like foreign interest payments and transfers. While "current account" is the proper term, many people use "trade balance" and "current account balance" interchangeably, since trade is the biggest item in the current account.

The second part of the balance of payments is called the capital account. This measures the purchase and sale of assets across national boundaries. A simple way to distinguish between the two accounts of the balance of payments is that the capital account measures international investing, borrowing, and lending—whereas the current account measures just about everything else. The international balance of payments accounting is very similar. If we import more than we export, we must either borrow or sell assets internationally, in order to finance that trade deficit. That means we are adding to our foreign debt. (This is not to be confused with our national debt, which is owed mainly to people and institutions here).

Horrible, unsustainable debt burdens raise the question of whether some countries might be better off just defaulting on their debt—that is, refusing to pay it—even if they were punished by international banks and investors. The answer to this question depends partly on how one evaluates the gains that they get from international trade and investment—i.e., increasing globalization. Is globalization progress? Nearly all of the experts and journalists who write about this subject would answer at least a qualified "yes" to this question.

For some, there is a natural progression from the medieval fiefdoms of Europe to the nation-state, to the increasing importance of international institutions such as the UN or the IMF. Others are in less of a hurry to build the institutions of world government, but nonetheless see the increase in trade and commercial relations between countries as a step forward for humanity. And almost everyone views the process of globalization as inevitable in any case, flowing naturally from advances in communications, transportation, and other technological changes.

It is certainly possible to imagine a world in which globalization could raise the standard of living for the majority of the world's people. It could increase the size of markets and the efficiency of production, allow countries who are short on capital to borrow from those who have a surplus, and even break down some of the barriers and prejudices that have contributed to military conflicts in the past. But the historical record of the current era of globalization is quite another story.

As noted above, the typical wage earner in the United States has suffered a decline in real wages since 1973. It is important to recognize that this decline is at least partly a result of a choice to pursue a particular form of globalization. Our political leaders have chosen to negotiate, over a period of decades, a set of rules that has thrown U.S. workers into increasing competition with much lower-paid counterparts throughout the world. This has had the effect, not surprisingly, of lowering wages for most Americans.

The latter set of problems has been recognized, to varying degrees, by pro-globalization economists and policy-makers. However, these people tend to emphasize the benefits or potential benefits of globalization. For trade, they rely on a simple but abstract economic theory: the principle of comparative advantage. This theory asserts that all countries are made better off by moving toward freer trade. The idea is that different countries are relatively more efficient at producing different things. On this basis it is easy to demonstrate that the world can benefit if each country specializes in the production of those goods that it can produce most efficiently and trades with other countries who do likewise.

There are a number of problems with this theory when it is applied to the real economy. First of all, even the theory itself does not assert that everyone in each country is made better off through reer trade. There are "winners and losers," and the theory only predicts that for the entire country the gains outweigh the losses. In other words, there is a profound bias against any kind of national economic development strategy.

The obvious problem with this application of the theory of comparative advantage is that it rules out most of the strategies that the developed countries of the world have used in order to attain the standard of living that they enjoy today. The extreme case can be seen in Russia, where industry has been practically dismantled under IMF supervision since the demise of the Soviet Union. The country now produces almost nothing but energy. In the process, Russia's economy has shrunk by more than half in just a few years, and they have suffered an increase in poverty and declines in life expectancy that are historically unprecedented, in the absence of war or natural disaster.

Indeed, critics of globalization would argue that the experience of the last two decades—in which the architects of the global economy have increasingly re-crafted the economies of most of the world towards their ideal of unified international markets—has been a failure by almost any measure of economic performance. And there is no reason to assume that institutions that are controlled by a small group of people from one or a handful of high income countries would adequately represent the interests of the world's poor and working people.

For the most prominent policy makers and writers on this topic, "reform" is synonymous with the opening of markets, privatization, and reducing the role of government in the economy. Indeed this has become the standard definition of reform in the media. For most of these people, the recent economic turmoil is just a bump in the road toward a more integrated world economy and the social progress that it promises. They generally favor increased regulation for "emerging market" banking and financial systems, as well as greater "transparency"—that is, better information for investors.

In the United States, whose government has been the most powerful advocate of the current form of globalization, measures to ameliorate the worst excesses of the global economy—either here or abroad—will most likely not be warmly received. If history is any guide, proponents of such changes throughout the world will be dismissed as "trying to turn the clock back," "protectionists," and worse. And, as often happens in the real world, some of their leaders or followers—as in Malaysia or Russia today—will have right-wing or authoritarian ideologies attached to them.

But this does not mean that their pro-national, regional, or local economic development policies are misguided. Or that the men who have been working overtime to "write the constitution of a single, global economy" are right. Restructuring of global politics and economics that may prove as historically significant as any event since the Industrial Revolution. This restructuring is happening at tremendous speed, with little public disclosure of the profound consequences affecting democracy, human welfare, local economies, and the natural world.

So far, globalization policies have contributed to increased poverty, increased inequality between and within nations, increased hunger, human displacement, increased corporate concentration, decreased social services and decreased power of labor vis-a-vis global corporations. It looks like Zeus, (the ruling economic geopolitical power), will continue to have a huge headache, until the wisdom of Athena can be born or spring forth. It seems unlikely to be found in the current form of New World Order. If the mytheme prevails, some form of Hephaistus, some technology, will split the whole situation wide open for a new truth to emerge. Could it be cyber-culture?

CULTURAL COUNTERPARTS

Minerva (Roman)

Neith (Egyptian)

Sophia (Gnostic)

Prajnaparamita (Cambodian, wisdom)

CONTEMPORARY EXAMPLE

In the 1980s, actress Melina Mercouri, became an excellent example of the Goddess in a modern Athenian woman. Beloved for her passionate portrayal of the Greek spirit in the movie, "Never on Sunday," she was appointed Greece's Minister of Culture. She took up the work with great enthusiasm.

This divine obsession frequently led her to work up to 18 hours per day as she became workaholic. Her projects included the return to Greece of national treasures currently housed abroad. Even though her personal life probably suffered under such a workload, she seemed to thrive. The Greek people adore her, and her reciprocation of their love is quite genuine. She had a love affair with the state. She willingly complied with the collective demand for her services and inspiration.

Other examples of Athena women include Senator Hillary Clinton, political pioneers like Geraldine Ferraro, Diane Feinstein, Eleanor Roosevelt, Golda Meir and many more. An older example is Queen Isabella, warrior queen of Spain. The Barbra Streisand movie *YENTL* has a song with the line, "Papa, can you hear me?" which exemplifies the Athenian connection to the father.

KEYWORDS

Current events, cosmopolitan, compulsive overachiever, urbane, polished, classy, sophisticated, commraderie, articulate, careerwoman, working mother, brainchild, brainy, skill, intellectual, publicity, focused, competence, social worker, defensive, strategy.

DIALOGUE WITH ATHENA

Springing from the forebrain of Zeus, Athena is intellectual in nature. Emerging from the male spirit indicates that she identifies most strongly with her father. Hence her father-complex, based to a certain extent on both the archetypal image of "Father" or "Father-God" and our personal experiences.

But not all fathers embody the authority principle of Zeus. Some fathers are irresponsible overgrown adolescents, while others might be spineless jellyfish, or blue-collar rather than white-collar types. Ask Athena about the subconscious aspects of your relationship with your father. Athena unites the virginal father's daughter and the encouraging mother of the spirit.

Athena has to do with the father's anima and his daughter's embodiment of that feminine spirit. It reflects in our religious notions about God, the Father, and our soul's yearning for that source of acceptance. Athena is the embodiment of the father's spiritual nature. Is she conservative and compulsive within him, or realize the loving, forgiving God.

You can ask Athena about the issues of the day in your dialogues. Topics might include foreign policy, social mores, values, politics and the arts. You may know your own conscious viewpoint on these issues very well, but subconsciously this part of you may feel differently. Also, when you inquire about issues and morals, be sure just who is replying from the inner cast of characters.

For example, on the issue of abortion: Demeter might consider any anti-life notion or action an abomination, while Artemis or Athena probably consider it a simple expediency. Identification with these different archetypes unconsciously causes our attitudes and thought patterns to correspond with their typical patterns. Thus our decisions, or crossroads in life may depend on which archetypal voice our ego chooses to identify with most.

When you have any outer life decisions to make in regard to your integrity, ethics, morals, job position, justice, etc., it is wise to seek Athena's counsel. Her sage advice may be able to help you make some sense of the conflicting inner voices commenting on the issue. She may even be the mediator for a divine round-table discussion. She can even bring some logic to the subjective emotionalism of other gods and goddesses, such as Aphrodite, Demeter, or Hera.

Seek her when you need to study for that big exam, job advancement or entry into a new field of exploration. By calling up her image, you connect with her powers and abilities consciously. She can keep you afloat in the deepest of academic waters by stimulating your innate intelligence.

Ask her for help. If your difficult learning area is mathematics, she might require aid from Apollo. For psychology, Hermes' aid is useful. When acquiring technical skills, the smith-magician, Hephaistos may add his talent to her efforts.

ATHENA IN YOUR LIFE

- 1. How have you felt about learning as a young child and now that you are older -- eager or reluctant? Formal or casual about learning?**
- 2. Do you maintain an interest in politics or current events? Have you ever been involved in a political campaign? Do you have any background in social science?**

- 3. Have you ever known a woman who functioned as a wise counselor or mentor to you? How did she embody Athena's qualities? Did she, for example, work at a college or university?**
- 4. If you have ever been a working mother, did you work from economic necessity or the drive to compete, better yourself, deal with the public, or achieve financial autonomy?**
- 5. Have you ever returned to school or trade school to learn new skills for job advancement, or just for self-development?**
- 6. Are you capable at public speaking? Have you ever participated in a formal debate? Call on Athena to help you if you aren't practiced in this area.**
- 7. What do you like about city life? What are its drawbacks for you? Are you at home in a cosmopolitan or urban environment?**
- 8. Have you ever participated in your community as a public servant or volunteer?**
- 9. Briefly describe your father's role as your mentor, counselor, teacher, or philosopher. What type of relationship did (do) you have with him? How have you inherited his spiritual qualities?**
- 10. Do you strategize your life or choreograph your upward mobility? In other words, are you making and following a definite gameplan for your future, either financially or otherwise? Briefly outline this plan.**
- 11. Has a co-worker ever tried to force his/her attentions on you--or you force yourself on them? Did you seek relief from harassment through official channels as Athena might?**
- 12. Have you ever felt your career should take precedence over your relationships or social life?**
- 13. Do you consider yourself a practical person or not? If you "sometimes are" and "sometimes aren't" what other gods make you impractical, or non-linear? For example, Zeus, spendthrift and gambler; Aphrodite, frivolous, seductive or flirtatious; Artemis, "spacey"; Ares, argumentative, etc.**
- 14. Do many or most of your friends or acquaintances come from your workplace, or perhaps craft fairs or classes, or maybe a shared interest in fine or performance arts or philosophy?**
- 15. Are you motivated by your own priorities like the Virgin Goddess? Can you develop winning strategies and practical solutions? Do you enjoy being in the midst of action and power? Can you skillfully avoid emotional or sexual entanglements with those you work with? If you are male, how does your anima life influence your emotional responses at work?**
- 16. Are you involved in any craft which is both useful and aesthetically pleasing, like weaving, for example? Athena's craft requires foresight, planning, mastery, and patience.**

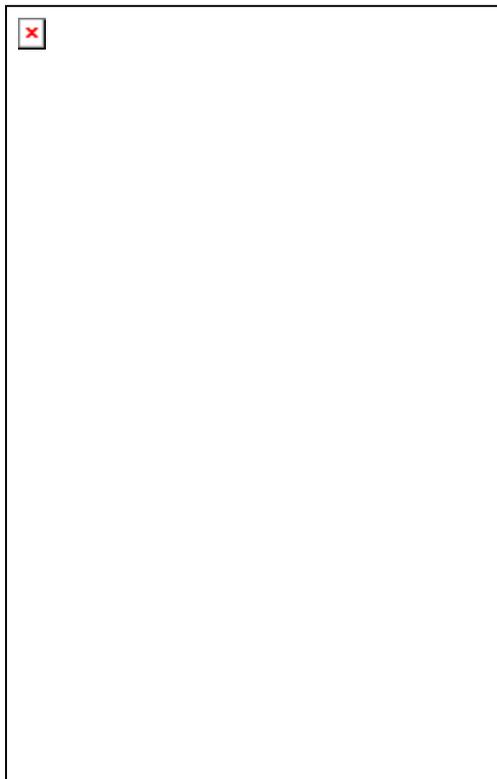
17. Describe how you may be emotionally armored, like Athena, against hostility or deception, in your private and public life.

18. Where do your ambitions lie? What are you organizing, building, doing? What kind of Emperor are you--energetic and imaginative, or rigid and unreceptive? Who is establishing guidelines, parameters and structures in your life? Who has the power and authority, and how is it being used?

*All homage to Hera, stately equal of Zeus.
Her power and position are put to great use.*

CHAPTER V: THE HIEROPHANT

HERA



Hera is a variation on the theme of the matriarchal Great Goddess. The Great Goddess had many lovers and was extremely independent until the arrival of the patriarchal northern culture in the Mediterranean area (see Reisler's *The Chalice and the Blade*). They brought their sky religion with its chief exponent, Zeus.

After a 300 year courtship, the fusion of cultures was consummated by the hieros gamos or Royal Marriage of Zeus and Hera. Hera settled into her new role as exemplary wife, giving up her polyandrous lifestyle, but not her independence. She became the pattern for all good married women, whose pasts are forgiven if not almost forgotten. Hera is therefore the patroness and guardian of the institution of marriage, as well as the legitimate spouse of

Zeus. Many of today's conjugal unions are about healing the millennial split between patriarchy and matriarchy -- the war of the sexes -- through gender reunion.

Her authority over the marriage came from her originally wider interest in the lives of women in general. She is also associated with certain aspects of fecundity and childbearing, even though her union with Zeus was not characteristically fertile.

She combines both earthy and lunar aspects in her personality, which makes her both practical and soulful. Hera has a deep shadow nature, and she has the dubious distinction of being the most jealous character in mythology.

It may seem strange to link Hera with "The Hierophant," but not when certain elements are considered. The sacredness of marriage is stressed in all the major religions of the world as a means of channeling the instinct of sexual desire, and fulfilling the mating instinct.

The Royal Marriage of Zeus and Hera also symbolizes wholeness of the individual personality. The Hierophant exemplifies this male-female wholeness. This prefigures the spiritual marriage of the soul with the celestial Lord, where the human soul is likened to a "bride." In ancient times is marriage of god and mortal was celebrated anonymously with priestesses of the great goddess.

"The 'heiros gamos,' the sacred prostitute was the votary chosen to embody the goddess. She was the goddess' fertile womb, her passion and her erotic nature. In the union with the god, embodied by the reigning monarch, she assured the fertility and well-being of the land and the people. . . she did not make love in order to obtain admiration or devotion from the man who came to her, for often she remained veiled and anonymous; her raison d'être was to worship the goddess in lovemaking, thereby bringing the goddess love into the human sphere. In this union -- the union of masculine and feminine, spiritual and physical -- the personal as transcended and the divine entered in. As the embodiment of the goddess in the mystical union of the sacred marriage, the sacred prostitute aroused the male and was the receptacle for his passion The sacred prostitute was the holy vessel wherein chthonic and spiritual forces united." (Qualls-Corbett)

There are many kinds of hieros gamos unions: the primordial hierosgamos of Gaea and Uranus, the "sacred sex" with a hierodule or sacred prostitute, or sexuality in marriage blessed by the priesthood as the spiritual dimension of marriage. Hera embodies the later kind. In the balance of power, there are marriages of equals and there are marriages where one or the other spouse is generally dominant.

Existentially, there are many kinds of marriages: those based on contracts, children, shared interests, friendships, partnerships, polyamorous, alchemical and soul unions. The best marriages put the union first, even above the children who then feel more secure. They are a combination of partnership, friendship, sexuality, nurturing, acceptance and spirituality. The link to the alchemical "chymical marriage" implies chemistry is significant. Nevertheless, marriage is a crucible of spiritual transformation.

The Hierophant, the priest who joins people with one another and with God, is associated with the astrological sign Taurus, and shares traits with Hera. In her original cult-forms

she was known as the "goddess of the yoke," "rich in oxen" (Taurus being the Bull), who kept sacred herds of cows. She is "cow-eyed" for her large brown eyes. As "goddess of the yoke" she prefigures the devotion to the sky principle seen in modern participants in Yoga (which also means "yoking"). The trump is associated with the rules of obedience and loyalty--to a guru, organization, work, country, etc.

On the physical plane, Hera manifests as the mating instinct, childbirth, parthenogenesis, and the flow of adrenaline especially in jealousy. Emotionally she reflects the dual faces of marriage when perfected or thwarted. Divorce is the cognitive notion associated with her, while her spiritual myth is the sacred marriage.

As an Olympian, Hera was the daughter of Cronos and Rhea. She was the sister of Demeter, Hades, Hestia, Poseidon, and Zeus. She was mother of Ares, Arge, Discordia, Eleithya, Hebe and Hephaistos, and probably Typhon.

Hera knows how to play the societal game. She teaches and upholds the traditions of society, giving and receiving advice. When she wants to she displays loyalty, obedience, and discipline. She makes authoritative allies and draws on the powers of moral law. Hera was famous for her tirades against her husband because of his philandering. The former plight of Princess Diana and her response to Prince Charles's affair was a classic Hera role.

PHYSICAL FORM

Hera is a goddess distinguished by her great antiquity. Her name means simply 'Lady,' and her original consort was known simply as 'Hero,' or Lord. It is interesting to note that the very first temple at Mt. Olympus was hers. It dates from the second half of the 7th Century B.C. to 1000 B.C.

She is also the official patroness of the OLYMPIC GAMES, which were originated by her muscular hero, Herakles (Hercules). The fact that his twelve labors were in service to her is shown by his name being derived from her own.

The stories and rites surrounding Hera indicate an instinctual background as the mating instinct. The antiquity of the goddess shows the instinctual nature of her origin. This instinct seeks fulfillment of a particular sort which will not be sublimated to other goals. It has very little to do with lust or sex, per se. If this instinct is forced to deviate from its goal, it will instead turn negative, as Hera's personality shows.

The wifehood of Hera seeks as her essential mode-of-being the required marital union with her spouse on several levels. She is not concerned merely with his physical fidelity (although it would be nice), or his ability to father children upon her, or be a responsive parent to the children.

Rather, she is driven by a compulsive necessity to be perfected through conjugal union. The instinct for a multi-level intimate relationship is natural. She wants to know the ins and outs of her spouse. Their union must include physical, emotional, psychological or intellectual, and spiritual levels.

Curiously, like many "royal couples," Hera and Zeus are both siblings and mates. This royal marriage was literalized in ancient Egypt, through sibling consorts for the pharaoh. This symbolism of brother/sister love represents the restoration of bisexual totality. It is a psychological resolution of original brother/sister duality. They are aspects of the same essence. Their re-union is expressed in an alchemical verse:

*White-skinned lady, lovingly joined to her ruddy-limbed husband,
Wrapped in each other's arms in the bliss of connubial union,
Merge and dissolve as they come to the goal of perfection:
They that were two are made one, as though of one body.*

On a more practical level, Hera cannot abide having a "token spouse" or an official husband who periodically checks in while he carries on his life elsewhere. His proximity and commitment to her are critical. She embodies the desire for the archetypal hieros gamos, or sacred marriage, which occurs between male and female on the physical, emotional, intellectual, and spiritual planes of experience.

Even while dating, Hera is always looking for a potential spouse. Hera feels essentially incomplete without a partner. Marriage to her means fulfillment and satisfaction. In contrast the Amazon likes the "thrill of the chase," while Aphrodite seeks immediate physical gratification, and Athena companionship or perhaps a useful business alliance. Though their essence is Feminine, these forces operate in both men and women.

As wife, Hera wants to share her spouse's day-to-day activities. You bet she wants to stay abreast of the business dealings. Why, what if he should die, and she needs to take charge of the estate? If another archetypal priority supersedes the Hera drive, she may avoid being prepared for such contingencies, yet fully able to take the reins of command.

Hera would probably prefer to have Zeus all to herself if her secret wish were known, but then how could he be Zeus in such a context? If she got her wish, imagine how they would quarrel under such close confinement. Each are accustomed to maintaining many outside interests. Besides, in any setting, Zeus cannot bring her to fulfillment as long as he carries her own un-lived masculinity or animus.

Hera wishes to experience depth of relationship with Zeus. To really do that, she needs to develop a relationship with her own animus, but that may seem too abstract. Inner work may not come naturally to her, but therapy may become her refuge if she becomes a dissatisfied wife. To her, marriage is no abstract institution.

She does not wish Zeus to assert his independence from wedlock with her. She doesn't even wish him to turn inward on his own resources, as she probably needs to do. If he follows his own inner feminine voice and becomes too introverted, she feels thwarted in her fulfillment since he may become emotionally unavailable.

He has turned inward to his brilliant daughter, Athena, his brainchild with all the ideas. Hera can also be jealous of her spouse's attention to real children, parents, job, or other relationships. This reaction veils an underlying fear of abandonment.

The fact is that Hera and Zeus are mutually dependent on one another for the fulfillment of this basic drive, the mating instinct. Depending on the basic emotional adjustment of the personalities in the relationship, this will manifest as negative co-dependence, positive inter-dependence, or a combination of these patterns.

Marriage requires active listening, not just to the partner, but to one's deep self. Problems in marriage reflect voices from the unconscious which need to be heard. Marital problems are a product of the inner conflicts each of the partners bring to the relationship.

But these very problems, which crop up in the marriage arena, reflect unconscious forces which have the potential for bringing each partner to wholeness, the inner marriage within oneself. It means integrating the other side of the personality so its energies can be used in constructive ways. It is the marriage of the conscious personality and the anima or animus.

This is the daily confrontation of married life, getting up and going to bed together, merely being in one another's presence. It is transformative; it is a yoga or "yoking" of individuals in the service of their union. Marriage itself can be a spiritual path, or approached from a spiritual perspective.

Having meaningful interaction and true intimacy requires renewed concern for the "now." The sacred marriage always takes place "now." There is no emotional reliance on a golden, honeymoon past nor escape to an idealized future when "surely everything will be better."

The sacred marriage is an arena for individuation of the partners through the mutual give-and-take of everyday life. The sacred marriage is no final act but requires periodic renewal. This cyclic renewal is intrinsic to the Hera cult. She was symbolically purified and renewed her commitment to Zeus in recurrent wedding ceremonies. So when we choose in life to renew our marriage vows on an anniversary, we follow Hera's lead.

These multiple weddings indicate a return to the condition of unconscious, original identity. At the time of the wedding, Zeus and Hera are truly one through the process of identification or participation mystique. But, inevitably, another crisis situation creates a critical atmosphere, but it is a necessary prelude to conscious realizations. And the cycle goes on...

In her article "Sexuality and Marriage: Divine Marriage or Divine Alchemy," Wendy Doniger (the Mircea Eliade Professor of the History of Religions at the Divinity), points out that sexual issues have always been at the heart of religion, with its concern for procreation, origins, birth, the survival of the human race. Rabbis, Christian clerics, Imams, and Brahmins have claimed the ultimate authority over sexuality until relatively recent times, and in many ways they still do. She makes many good points about their assumption of dominion in this area of human life.

Why should a priest legislate sexuality? There are two sides to this question: Why should a priest want to interfere in this area, and why should people allow him to do so? The answer to the first side is that sexuality is among the most basic of human needs, the key to the survival of human life. To control sexuality means to control everything that stems from it — politics, power, everything. Moreover, that very same fact — that this force is so deeply imbedded in the human organism — suggests the answer to the second side of the question.

For sexuality, like death, is an area of great vulnerability, mystery, danger; it is, ultimately, inaccessible to reason or to science. This is the shadowy place in which people feel a need for religion, where priests are invited to enter in or offer to enter in.

The sexual connection between god(s) and humans is often envisioned as a kind of marriage — the hieros gamos of the ancient world, the nun's wedding to Jesus — or as sexuality — the gloss on the Song of Songs, Bernini's Saint Theresa, and so forth. But it is also envisioned as divorce or adultery. God's abandonment of his worshipper and human adultery often become metaphors for one another.

Stories about human women and men become inextricably entangled in the toils of human sexual tragedy and take flight in the illusion provided by myth. But the banal and the magical are by no means mutually exclusive, for the royal road that connects myth and experience is a two-way stretch. The myth is a bridge between the actual human sexual experience and the fantasy that grows out of that experience and in turn transfigures it.

The meanings of these myths must be sought not merely in the superficial anthropomorphic forms and quasi-human events but in darker theological questions. Irrationalization occurs in mythology when ideas about men and women are transformed into myths about gods and goddesses, but the opposite process, rationalization, is equally common and important, when ideas about gods and goddesses are translated into myths about men and women.

Gender plays a central role in the wider religious concern with order. Broadly speaking, a structuralist might say that, in religious thinking, gender/sexuality = culture/nature. Religious communities and dogmas tend to disqualify the pieces that don't fit their paradigm; if the paradigm is defined as male (as it usually is), they discard or devalue the female (or the homosexual, or the bisexual). Thus, women (and, sometimes, eunuchs or bisexuals) are usually cast as the villains in the founding myths dealing with such central religious topics as death, evil, and disease.

Traditional religions regard sexuality as, overwhelmingly, heterosexuality. What homosexual themes there are in traditional myths are seldom overt, because such myths almost always have, as a latent agenda, the biological and spiritual survival of a particular race, in both senses of the word: race as contest and as species ("us against them"), the "outnumber-them" agenda ("be fruitful and multiply"). Such myths regard homosexual acts as potentially subversive of this agenda (or, at the very least, irrelevant to it, perhaps not part of the problem, but certainly not part of the solution).

The ascetic aspects of Hinduism and Christianity, among other religions, create a violent dichotomy between heterosexual marriage, in which sexuality is tolerated for the sake of children, and the renunciant priesthood, in which asceticism is idealized and sexuality entirely rejected, or at least recycled. In this taxonomy, homosexual love represents what Mary Douglas has taught us to recognize as a major category error, something that doesn't fit into any existing conceptual cubbyhole, "matter out of place" (in a word, dirt). (Here we may do well to recall the ways in which homophobic language often employs "dirt" symbolism.) Traditional religious texts regard homosexual union not, like heterosexual marriage, as a compromise between two goals in tension (procreation and asceticism), but

as a mutually polluting combination of the worst of both worlds (sterility and lust). The myths therefore seldom explicitly depict homosexual unions at all, let alone sympathetically.

Other mythologies of sex and gender are not necessarily open to more liberal constructions of gender than our own; some of them are simply open to different constructions from ours. Yet the very fact that they explore options that we have not even considered gives them the power to make us notice the ways in which our own religious traditions legislate, often without our conscious knowledge, our sexuality.

Occupations associated with Hera include:

<p>boardmember chairperson faithful spouse "first mate" first lady heir hostess housewife investor landlady</p>	<p>matron mother monarch patroness philanthropist queen "rich bitch" visionary widow wife</p>
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EMOTIONAL IMAGE

Most of her stories are connected with her relationship with Zeus. Some evidence in texts that a more equal power relationship than that presented in Homer. Hera's main spheres of influence are marriage, weddings and childbirth. The divine marriage, hieros gamos, is critical to her cult (cf., Iliad XIV.152-353). Hera shares with Gaia certain powers and conflict with the male. Version that Hera created Typhon; Birth of Hephaistos; Attempted overthrow of Zeus by Hera, Poseidon and Athena. Inherent dichotomy and contradiction in Hera (inversion of the good wife) seen in her: Marriage; Relationship with her children; Story of Ixion reflects her ties to the patriarchy.

The emotional dynamics of Hera revolve around being perfected or thwarted in her mission. When she is thwarted she is essentially animus-possessed and rages against her "persecutors." She becomes over identified with her own masculine aggressive side, and paradoxically rejects her own feminine identity. She may be the victim of a negative mother complex, and be too one-sided.

Hera's jealousy is extreme enough to be called pathological. She doesn't have jealousy as an emotion. Hera is this archetypal form of jealousy of the spouse's attention. To feel this feeling is a form of merging with the goddess -- an epiphany. But it may feel more like being possessed by a demon or the "green-eyed monster."

On the positive side, Hera embodies the feminine portion of the transpersonal authority, the Self. Inner contact with this archetype for a woman is an experience of the core of her

being. To be in harmony with herself, she must serve this inner dynamism. We can view this modern worship of Hera by giving her our attention.

A neurotic or under-developed man would have to come to terms with the authoritarian aspect of the mother-complex. A man involved in developing his "feminine" side would serve Hera over and against the logos principle, listening to his heart as well as his head. This is generally a stage in the psychic life of men whose quest for the Self culminates in the PUER/SENEX reunion, which expresses itself through "masculine" symbolism (see Chapter XXI). The man in touch with the deep values of spousal intimacy is her 'hero.'

The fulfillment and wholeness of Zeus and Hera consists of a dyadic relationship. "Being a couple" is her big deal! They are two-in-one, contained by their relationship, unless possessiveness flares up. If they become estranged emotionally, she may repress the direct expression of her sexuality, projecting onto Zeus the fulfillment of her repressed desires. He manifests it through an affair. Psychologically, the "other woman," so despised, represents unknown aspects of her own being.

Hera wants to be in the presence of her beloved, because she derives her fulfillment through involvement. She always expects a deeper commitment from her spouse than she will ever get, however. The intense involvement is not always pleasant. Zeus and Hera are the types who figure that "negative attention is better than no attention" in their exchanges.

Hera is first and foremost the dutiful wife of Zeus. We might call her the wife of the CEO of Mt. Olympus. She is as potent of a directing force as he is. But in a patriarchal society her powers tend to appear in negative forms. Managerial ability can become an exaggerated urge to control or have power over those closest at hand -- the family, who tend to resent it.

Zeus is notoriously promiscuous, and Hera directs a great deal of animosity at Zeus and his mortal and immortal paramours. Hera can be both jealous (internal) and vindictive (extroverted). She must have been kept pretty busy by Zeus' philandering. She must have been in a perpetual tizzy, because the number of his liaisons is legendary. But Zeus had no immunity against the onslaughts of Hera! The masculine principle, as represented by Zeus, is far from omnipotent when challenged by her powerful contrary principle.

Hera is repeatedly the victim of her own powerful emotions. The volcanic quality of her animus (inner masculinity) is embodied in Hephaistos, her lame son. This issue of parthenogenesis was conceived without a father, from her jealous brooding. As such, he came to rule volcanic activity, both physical and emotional. When moody, Hera is capable of veritable explosions of strong emotions.

Hera is outspoken and she has a judgmental, scolding tongue. But she is not always overt in her attacks. Despite her moral indignation at the behavior of others, she is more than willing to manipulate the feelings of others to suit her own needs and desires.

The Hera personality is seen in the grande dame type of woman. She is given to largesse or charitable activities. She has an aristocratic aura which assumes a right to command, both activities and attention. She is born-to-order and scarcely questions this destiny as anything

other than her rightful position in life. She may express herself through becoming a patron of the arts, or an administrator, (for example, a Dean of Women, or Board Member).

As the result of her strong social concerns, she pays special attention to keeping herself attractive. She is always fashionable and publicly appropriate. She has a strong sense of honor and duty. Many find these qualities present in former First Lady, Nancy Reagan. Before her, the personality of Jackie Kennedy fascinated the world.

Hera prefers to grapple with concrete details, rather than muse on intellectual theories or abstractions. This can be valuable in coordinating an estate where there is always much to be done. Even though she is a bit eccentric, her innate feel for social awareness allows her to integrate and maintain acceptance by those of all social levels. Her mores will invariably reflect those of her surrounding culture.

Some people are grappling consciously with these emotional issues, and seeking the advice of the Goddess for solutions: At <http://www.headlinemuse.com/aphroadvice/Mayissue.htm> we find: "UpdatingAphrodite" , an archetypal "advice" column written by Laura Shamas which explores questions about love and life from a mythological perspective.

Q: Silly as this may seem, I have this internal struggle going on between my own "whom does the grail serve" between Aphrodite and Hera. I have been "claimed" by Aphrodite early and could not imagine a life without her beauty, strength, passion, dignity and sensuality that she has graced me with being a woman...But, I feel this other great pull of wanting to attract a life-mate. Certainly not Zeus with all his philandering, but, I know Aphrodite wasn't thrilled exactly her "partner" or the whole "till death do us part ritual" either and dallied around, quite nicely, thank you! And Hera was the one to call for the sacred marriage and also the queen of the Gods. So, how do I get the best of both worlds here? I want the two together and yet they seem so opposed. Please help me out here. - DIVINELY DEVOTED
Dear "Divinely Devoted,"

Your question does not seem silly at all. It's an important one. You have articulated something that lots of women feel, especially since we have "cultural reinforcement" (through media images, movies, etc.) that we should use Aphrodite's talents only as a means to lead to Hera's hieros gamos (sacred marriage), but not use the Goddess of Love's gifts after the altar. Aspects of both archetypes resonate with most women: how do we live with the tension between "loyal mate," keeper of the fidelity flame, and "sensual lover," the generative, female sexual spark--which may not be so easy to limit to just one partner? I think the answer to your question "Whom does the grail serve?" is: both of them, if you want a long-term relationship. Their realms are not as "opposed" as they might seem on first glance. And Aphrodite's stories highlight important points about how to keep a life-mate, whether male or female, interested for the long haul.

APHRODITE AND THE SACRED MARRIAGE OF ZEUS AND HERA

In Book Five of Homer's Iliad, Zeus alludes to the realm of "marriage" as Aphrodite's sphere of expertise. He says to her:

"Not to you, my child, have been given the works of war;
you, rather, should attend to the charming works of marriage." (lines 428-30)

It was Aphrodite who helped to save Hera and Zeus's marriage, by loaning Hera her Magic Girdle. Zeus could not resist his Queen when she was so fetchingly clad in the Love Goddess's lingerie; although Zeus had strayed (115 times!), he returned to Hera from his philandering thanks to the seductive girdle. Hera and Aphrodite's purpose is united in this story: to save the sacred cosmic marriage. This myth implies that Aphrodite is necessary to a marriage; Aphrodite's gifts helped Hera keep her marriage to the King of the Cosmos alive. Charming one's partner, even after years of marriage, is vital, according to this myth. Aphrodite and Hera went head-to-head on more political issues such as the beauty contest judged by Paris that became the beginning of the Trojan War (Grimal 192). But in terms of preserving the "hieros gamos," the goddesses were in accord.

APHRODITE'S MARRIAGE

But what of Aphrodite's own marriage? As you astutely point out, Dear Reader, she cheated on her lame husband Hephaestus by having a number of love affairs, the most famous ones with: Ares, the God of War; Hermes, the Trickster God of Communication and Commerce; Adonis, the younger hunk; and Anchises, the hottie in the hills. I think the message here is that as the Goddess of Love, she had to spread love around--to reach difficult arenas like war, via the realms of communication and business, the young and the old, with immortals and mortals alike. Although she was not faithful, her marriage was a source of power for Aphrodite. After all, she was married to a son of Zeus, and her husband loved her. Truly, madly, deeply.

Hephaestus was jealous of Ares. According to Homer's *Odyssey* [Book Eight], when Hephaestus contrived to catch Aphrodite cheating with Ares, he built a magic net which was hung as a trap over the Love Goddess's bed. Although Hephaestus was lame, a wound he received when either his mother or father threw him from Olympus (both versions of his lameness are in the *Iliad*), the smithy was ingenious and creative. His web caught the lovers in flagrante delicto; the gods in Olympus came to see the cheaters on display, all but Poseidon laughing at them (Friedrich 63). Some mythographers have interpreted this "lovers trap" scene as a symbol of shame brought on her husband by Aphrodite; in other words, that the expression of female sexuality beyond the boundaries of marriage will bring public embarrassment--ridicule due to cuckolding.

Aphrodite expert Paul Friedrich, however, sees the "lovers trap" scene as possibly illustrating Aphrodite's complete freedom from shame, in that she is allowed to go on her merry way afterwards with no change in status: a sign of her own high stature in Olympus and the power of love. In *The Meaning of Aphrodite*, Friedrich comments, too, that Book Eight of the *Odyssey* "raises serious questions about the symbolism of the relations between Aphrodite and Hephaestus" (64). Friedrich sees some significant positive elements in the A-H union. Friedrich asserts that far from lame, Hephaestus is one virile guy with a lot to offer a sexy gal: "his bellows as testicles, his hammer as a phallus, the gold he works as semen, and the fire of his great forge as the lust of sex" (65). This is not a guy who needed any sexual coaching; he sired lots of children, and not only with his wife. Aphrodite is an earth goddess who ascends to the sky; Hephaestus is a sky god who is cast below. Together, they move heaven and earth. She loves gold; he makes gold jewelry. Also, Aphrodite is dominant in their relationship, which doesn't sound like a bad deal. So Aphrodite's own marriage has strengths that are often overlooked.

LEARNING FROM THEIR STORIES. How to work with the stories of both goddesses in order to find a partner? Embrace Aphrodite's gifts. Finding a life-mate will involve charming a suitor with The Goddess of Love's enticing whispers and laughter. And once you've found your lover, don't forget about Aphrodite's alluring ways, because those charms will reinforce your marriage (with pleasure!) if practiced regularly. Oh, and don't cheat as much as Aphrodite did. That's a lesson from Hera: be faithful in order to keep your marriage "sacred."

Keywords for Hera include,

<p> alimony argumentative attentive appropriate aristocratic bicker bitch co-dependent competence clinging conflict devoted divorce settlement duty emotional blackmail fidelity frustration inheritance inter-dependence </p>	<p> intrusive jealous loyal manipulation mental imagery moral opinionated patronage pillar of society revenge shrew shrewd social obligation subjective tenacious touchy vengeful volcanic </p>
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INTELLECTUAL IDEA

A notion in our modern society which has a great dynamic effect on the domain of Hera is the concept of divorce. Easy divorce has not been an option, historically speaking. It is basically a new phenomenon. We are so casual in modern society that relationships are considered "disposable" or re-cyclable through serial relationships. With a 50% divorce rate for baby-boomers, and a 70% divorce rate for Gen-X, we have quickie "no-fault" do-it-yourself divorce.

Since the state of mind of the spouses is not identical coming into the marriage, there are usually differences in the adjustment to marriage. Differences in tempo, maturity, and in the degree of spiritual development are typically causes of difficulty, according to Jung. One partner is generally more psychologically complex than the other. This partner is frequently capable of much faster spiritual growth, but may be erratic.

The spouse who is grounded in a positive relationship to the parents can generally adapt better. They are not hindered by a deep-seated unconscious tie to the parents as divine,

god-like beings. They have successfully emancipated and therefore are more mature. They come into marriage as adults rather than "adult children."

A complex nature has many facets, and this personality may seek to realize many of them as symbolized by the impulsive promiscuity of Zeus. Versatility and spontaneity may have a certain charm, but it can mask an underlying impulsiveness.

Jung thought that a woman's spiritual life was contained in her relationship to her husband. Conversely, a man is contained emotionally in his wife, according to his notion. This may have been an accurate observation in his day of more traditional gender models.

However, the alternative lifestyle movement has produced many spiritually-oriented persons with commitments outside the Dyad. For example, a woman devotee of a spiritual Master obviously is not wholly contained spiritually by her husband. He does not contain her entire spiritual animus projection. She sees it in all her relations with significant others. Likewise, a man involved in intensive social action such as counseling, has a vigorous emotional life outside the home.

These divided loyalties are actually healthier than the all-or-nothing proposition of having no essential obligations or binding interests outside of the marriage. Nevertheless, the simpler spouse has the advantage of undividedness. The other spouse may envy this condition, feeling outside the marriage. This can become problematical, since it awakens longing for that particular bliss.

Maybe the spouse begins to fantasize it can be found in another lover. Hera has radar for such impulses, and her insecurities are painfully aroused. The specter of rivals begins to appear on the horizon. Driven inward by disappointment, the spouse may become desperate or violent, exploding in a spasm of rage and manipulative tactics. Forced to turn inward, the individual may be lucky enough to find an inner self-sufficiency which was latent potential all along.

As the possibilities of inner integration become more apparent to both spouses, they have the possibility of achieving the experience of an undivided self. This is a quantum leap in consciousness which is equivalent to a metamorphosis. This stage cannot come without confrontation of the anima/animus. The constant animosity depicted in the Zeus-Hera configuration has a telos or goal.

Every phase of life has its particular psychological goals as well as physical changes. One can always hope to be surprised in marriage by having one's own complexities answered by a corresponding diversity.

But progress may also be arrested at any stage of development with no further breakthroughs. Things get stuck; there is a "stale-mate." Consider the divorce rate. Individual capacities for adjustment vary. Remember, Hera remarries Zeus over and over again. You might think they are trying to get it right. Is the third time the charm?

There is pathology associated with this archetype including tragedy, yearning, jealousy, vindictiveness, and shrewishness. In the extreme, it may lead to homicide. Hera is shrewd.

This behavior, though inherent in her nature, is motivated by the attitude and behavior of her roaming spouse, Zeus.

It is purely reactionary, based on her compulsive, overwhelming need. He never seems to settle down, content with the domestic routines. When he persecutes her, through neglect or his affairs, she is distraught. She reacts so strongly that she even becomes self-defeating and self-destructive. In her negative phase, Hera is possessed by her animus reactions. In myth she gave reactionary birth to many monster children, conceived by herself in the lonely brooding of rejection.

She projected this rejection by Zeus into the form of her own son, Hephaistos. He is born of the primal Virgin-Mother. His birth as a separate entity means she lost the possibility of developing her own deeply introverted creative processes. If she could only have gotten a meaningful job. She winds up rejecting her son as Zeus rejected her, passing on her rejection and abandonment issues inter-generationally.

With Prometheus, another son, she gave birth to her rebellious opposition to the dominion of Zeus, meaning she expelled her ability to gain in ego-consciousness. Prometheus later has his own rebellious acts and conflicts with Zeus, carrying on the family tradition.

The combative Ares was the embodiment of her bloodthirsty rage, her egotism, and her jealousy. Ares' warlike nature is an instinct which has wreaked havoc on mankind. Finally, Hera goes really psychotic and expels the monster Typhon. As this reptilian Godzilla-like beast, she goes through a radical regression to the most primitive level, bursts all fetters and runs amok. With no limit to her destructive capabilities who knows what damage she might do.

At this point, the only hope is mitigation or litigation. Perhaps it is time for another purification and transformation through a renewal of the sacred aspect of marriage. In the Argive legends, Hera was known as "goddess of the yoke" and the meaning of yoga is "yoking" or "union." In this sense, marriage is a yoga, an arena for spiritual development. On the positive side, Hera was also Mother of the Charities (Faith, Hope, and Love), gaining thereby her affinity for charitable work.

Those identified too strongly with their persona as wife need to tap the deep resources of the animus. No one can be reduced to their role, such as merely wife, mother, breadwinner, etc. If a Hera-type has married a philander or liar they will become frustrated and embittered. Even so, guilt or duty or other feelings may prevent them leaving a bad marriage.

She represses her natural response. She may sublimate her rage in manual or mental work, rather than allowing herself to truly feel the energy and transmute it. If abandoned, she may have trouble believing that the loss is permanent. She believes in the fantasy of his return and eventual reconciliation. This denial prevents grieving and blocks her process of recovery.

The alchemical notion of "the chymical wedding" returns marriage to its spiritual side as a participating factor in personal transformation. Karen-Claire Voss Uses imagery from the *Rosarium Philosophorum* to illustrate this. Both the texts and the iconography of the

alchemical tradition of the sixteenth and seventeenth centuries are filled with allusions to 'the chymical marriage,' and some of the most beautiful and compelling images in the texts depict the conjunction of opposites as a royal marriage. These descriptions and images occur with sufficient frequency to warrant comparison with the hierosgamos (sacred marriage), as understood in the discipline of history of religions. We encounter the idea of the hierosgamos even before we embark on a hermeneutical discussion of the images that the work contains in the History of Religions.

The term hierosgamos is used generally to refer to the union between two divinities, or between a human being and a god or goddess, or between two human beings (under certain special conditions); more particularly, it is used to refer to the ritualized, public sexual union between the king and a hierodule ('sacred prostitute') in ancient Mesopotamia. This union was accompanied by the belief that the human partners became divine by virtue of their participation in it. It was thought, for example, that the priestess who took part in this ritual became the goddess Inanna in the same way as ordinary bread and wine are thought to become the body and blood of Jesus Christ in the Roman Catholic celebration of the Eucharist. Both ritual forms entail regeneration and transformation; in Mesopotamia, the hierosgamos was thought to insure the well-being of the king, the prosperity of the people, and the continued fertility of the land.

The belief that human beings could participate in the ontological condition of divinity through sexual union, through the body, is exceedingly ancient, but the hierosgamos is not merely an important element in an archaic religious tradition. It is also exceedingly persistent. And, in my view, its persistence indicates more than a merely superficial connection between its manifestations in the ancient Near East and in the West; it has become associated with a spectrum of symbolic meanings so rich and compelling that they continue to reassert themselves over and over again. Although the hierosgamos did not find its way into the official teachings of Christianity, for example, it is present nonetheless in the symbolism of Mary as the Bride of Christ.

The major difference between the significance of the hierosgamos in the ancient Near East and the Christian West is that its expression in the former context was bound up with an explicit, embodied praxis that necessitated ritual sexual union. This gives rise to certain hermeneutical difficulties. Scholars of religion sometimes deny or ignore the presence of the hierosgamos idea, or pronounce its use as a conceptual category invalid. Even those who do recognize its presence may yield to the prevailing wisdom that encourages the substitution of a part for the whole, and thus interpret the hierosgamos according to an allegedly higher, spiritualized ideal, having nothing to do with the body. Analogous interpretations are offered for the hierosgamos theme in alchemical texts. Yet, many of the alchemists appear to have undergone a complex experience involving mutual reciprocity between the events in the laboratory and within themselves of a kind that harkens back to, and carries forward, the imprint of a religious tradition that combined physical and spiritual levels of transformation.

A core of meanings associated with the hierosgamos that have persisted cross-culturally. If anything, the symbolism became enriched by the addition of Christian doctrines, especially that of the Incarnation, which signified the union of human and divine. Many alchemical texts like the Rosarium insist on the interrelatedness of body and spirit. In seeking the

'conjunction of opposites' the alchemists were attempting to overturn the conventional conceptual dichotomization between spirit and body, and to offer in its place models that reflected their intuitions of ontological wholeness. Therefore, when interpreting the hierosgamos theme in the context of the alchemical tradition we should keep in mind the fact that it is generally meant to include the body; it signifies not only idealiter but also realiter. An adequate hermeneutics of alchemical iconography can do justice to the multivalence of the hierosgamos images in texts like the *Rosarium* only by seeking to encompass the totality of their symbolic meanings.

The *Rosarium Philosophorum* contains twenty-one images, fifteen exhibit the hierosgamos in more or less explicit form; three others contain it implicitly. Figure 1 shows a fountain fitted with three spigots. The waters are the key to unlocking the meaning of this image, for the text explains that the waters flowing from each are really a single water --'of which and with which our magistry is effected.' The three waters evoke a hierogamy described in the *Enuma Elish*?, a Mesopotamian creation myth from around 1900 b.c.e., which relates how the primordial waters of Tiamat, 'she who bore them all,' and Apsu, 'their begetter . . . commingle as a single body,' and thus become the sole matrix from which everything emerges. The verse accompanying the figure heightens the correspondence between the alchemical fountain and the hierogamy that produced all life: 'We (waters) are the metal's first nature and only source; the highest tincture of the Art is made through us.'

In Figure 2 we see a king and queen dressed in elaborate robes. Each holds a stalk ending in two flowers. He stands upon the sun, she on the crescent moon. Although their separateness is symbolically emphasized, they clasp hands as if to prefigure the 'chymical marriage.' A dove -- at once a mediating symbol as well as a further link with the hierosgamos, since it was associated both with Eros and with the powerful female divinities of the ancient Near East --is shown hovering above them, holding its own stalk which perfectly intersects the cross formed by those held by the king and queen. In Figure 3 the pair is naked; but, still wearing separate crowns, they proffer to one another a flower on a long stalk. The banner over the king's head reads: '*O Luna, let me be thy husband*'; the one over the queen's reads: '*O Sol, I must submit to thee.*' Once more, the dove appears between them, a flower in its beak.

In Figure 5, we see the king and queen in sexual embrace. Figures 6-9 show the king and queen in hermaphroditic form, indicating successively deepening levels of conjunction, and depict them lying in a sepulcher. Their bodies are joined; they have two heads, but now wear a single crown. Figure 11 is explicitly sexual. The king and queen, each winged, wear two crowns, and are submerged in water. Their limbs are entwined; her hand grasps his phallus; his left hand fondles the nipple of her breast; his right is under her neck, supporting her. Figure 17 depicts the product of the union between the alchemical opposites in the form of the Hermetic androgyne. This offspring is not simply the end result of the marriage of opposites. Figure 18 shows the lion eating the sun. It is itself an implicit hierogamy because it is not fully differentiated from its parents, and continues to participate in its hierogamic beginnings.

Figure 19 provides an excellent example of the occasional coalescence of alchemical symbols and Christian symbols. Mary is in the center, flanked by the Father and the Son who are about to crown her. The Holy Spirit--in the form of a dove--hovers above. In the

background appear the words *Tria* and *Unum*. This image clearly contains a rich variety of hierogamic themes. First, there is the symbolic similarity between the three waters of the alchemical foundation we saw in Figure 1 and the Trinity. Second, the Incarnation of God the Son was made possible by a hierogamy between Mary and the third person of the Trinity. Third, the Incarnation of the Son entails an ontological condition of simultaneous humanity and divinity--a profound manifestation of hierogamy.

Like the marriage between the alchemical opposites, all these unions require mediation. In the alchemical marriage, this function is often performed by Mercurius, whom Jung calls a 'mediating symbol par excellence'; in the *Rosarium*, however, we have already seen the dove in the role of mediator. In this figure we see it in that role too, poised above the crown that the Father and Son are about to place on Mary's head; it is now associated with the third person of the Trinity. The fact that the dove was a symbolic attribute of the female divinities of the ancient near east underscores the conclusion that Figure 19 is also a hierogamic image, albeit in Christianized form.

Figure 20, the last image in the series, depicts the risen Christ. In his left hand, he holds a banner marked with a cross; his right gestures toward the now empty sepulchre. That sepulchre unmistakably indicates that the completed alchemical process has involved the transformation, not the transcendence, of the body. For if the alchemical work necessitated the transcendence of the body, one would not expect to find an empty tomb, but a tomb filled with the putrefying remains of the king and queen. Instead, we see the risen Christ, the embodiment of the hierogamic union between human and divine. In the view of the alchemist who wrote the *Rosarium Philosophorum*, the Christian doctrine of the resurrection of the body signified, not the suppression, or even the transcendence, of the physical body, but its glorification and perfection.

It is not surprising that the author of the *Rosarium Philosophorum* chose images of the hierogamos to help convey something of the exquisitely subtle reciprocity invoked in the alchemical coniunctio. The hierogamos images of alchemy are profoundly eloquent expressions of the experience of the true adepts as they moved through the later stages of the work. For those alchemists, all the elements of ordinary experience were sacralized. The Philosopher's Stone could be found everywhere; it was 'walked on, children play with it'; it is familiar to all (people) both young and old, is found in the country, in the village, in the town.

Perhaps we are still capable of learning from the alchemists that what transforms common substance, that which is familiar to all, is no more – and no less – than a deeper apprehension of the significance of the Hermetic motto: 'What is above is just as what is below.' This motto, so often quoted and equally often misunderstood, requires that we understand the radical implications of a 'whole from which nothing is excluded.' (Voss <http://www.trinity.edu/mgarriso/Myth/MythSyllabus.html#top>).

Further reading concerning Hera includes the following:

ZEUS AND HERA, Karl Kerényi
"Hera: Bound and Unbound," Murray Stein in **SPRING JOURNAL**
THE MEANING OF APHRODITE, Paul Friedrich

GODDESSES IN EVERY WOMAN, Jean Shinoda Bolen
THE GODDESS, Christine Downing
MARRIAGE: DEAD OR ALIVE, Adolph Guggenbuhl-Craig, Spring Pub.
"Marriage as a Psychological Relationship," C.G. Jung (CW)
THE GLORY OF HERA: GREEK MYTHOLOGY & THE GREEK FAMILY, Philip Slater
SMART WOMEN, FOOLISH CHOICES, Cornell Cowan & Melvyn Kinder
JEALOUSY, Nancy Friday
ON THE WAY TO THE WEDDING, Linda Leonard, 1986
SUPERMARRIAGE: OVERCOMING THE PREDICTABLE CRISES OF MARRIED LIFE
"Individuation through Marriage," Verda Heisler, PSYCHOLOGICAL PERSPECTIVES, Vol. 1, No. 2, 1970
THE BED TRICK: Sex, Myth, and Masquerade, Wendy Doniger

SPIRITUAL MYTH

For Hera marriage is a spiritual event which is only the beginning of her lifelong goal. She gets married in church or the Temple, not in Reno or by the Justice of the Peace. It is consecration, dedication, and consummation -- a eucharistic act. The main spiritual content of Hera revolves around the hieros gamos, or sacred marriage. On a personal level this means the reuniting of spirit, soul, and body. It indicates a full knowledge of both the heights (Zeus) and depths (Hera) of one's character. When the hieros gamos is consummated in our daily lives, it means that we have learned to apply our insights in practice.

When Jung speaks about the royal marriage, he tells us that the queen symbolizes the body, the king stands for the spirit, and the soul unites the two. Therefore, our psyche is a half bodily and half spiritual substance. When king and queen (animus/anima) are united, they form a magical hermaphroditic being which is a union of opposite energies. We need to be related to another individual, according to Jung, to experience the full depth of our own psyche.

From an internal perspective, spiritual marriage is an inner experience which is not projected onto another living individual. In the royal marriage of the soul with the Self, the projections of anima and animus have been returned to their proper level in the unconscious. We do not make our mate carry an essentially religious function for us anymore. The King and Queen are united, or conjoined, synthesizing the opposites. But this cannot happen until one masters the problem of unconscious desirousness. When the opposites to be united are the masculine consciousness (of our day world) and the feminine unconscious (the night world), this royal marriage is a transcendent symbol of the Self, and embodies the psychic totality of personal wholeness.

These statements need not be confused with erroneous notions concerning the so-called "soul-mate." Each individual has a complete soul, and is a divine spark. But when we choose to cast our lot with a life-mate there is a synergetic effect which transcends the qualities of the individuals involved, bringing a portion of the divine into manifestation. It is not that a long-lost mate is rediscovered after separation on a higher plane. Rather, that

two compatible souls commit themselves to furthering the development of loving compassion in one another. From the archetypal perspective, the whole object of marriage is to reach God. Thus marriage is seen as a creative process of love where two souls care for one another in a reciprocal manner, furthering mutual spiritual aims.

Therefore, the Royal Marriage of Zeus and Hera means self-actualization within the boundaries provided by the institution of marriage. Our partners are no longer required to live our own un-lived potential. Through withdrawal of projection onto the partner, we actualize our own potential. Thus we find meaning in "the battle of the sexes." We discover our own madness, as well as our own unique spirit. This creates an increased sense of interiority which might be viewed as a thalamus or bridal chamber, a place where opposites merge.

According to Joseph Campbell, "Myth helps you to put your mind in touch with this experience of being alive. It tells you what the experience is. Marriage, for example. What is marriage? The myth tells you what it is. It's the reunion of the separated duad. Originally you were one. You are now two in the world, but the recognition of the spiritual identity is what marriage is. . . . When people get married because they think it's a long-time love affair, they'll be divorced very soon, because all love affairs end in disappointment. But marriage is recognition of a spiritual identity. . . . By marrying the right person, we reconstruct the image of the incarnate God, and that's what marriage is. The internal union of hieros gamos helps ensure the external reunion in a primary relationship. By discovering splits within myself and healing them, I prepare for a spiritual identity. Otherwise my partner ends up carrying the burden of Eve, Helena, Mary or Sophia to compensate for my unresolved anima issues."

How does one choose the right person? Your heart tells you. It ought to. Your inner being. That's the mystery. You recognize your other self? Well, I don't know, but there's a flash that comes, and something in you knows that this is the one. The Intuitive Self knows when the spiritual partner arrives. By attending to the moment, I will have the perceptiveness to recognize the flash when it comes. If I am not listening, the flash will come and go without my noticing it. Why is it that marriage is so precarious in our modern society? Because it's not regarded as a marriage. I would say that if the marriage isn't a first priority in your life, you're not married. The marriage means the two that are one, the two become one flesh. If the marriage lasts long enough, and if you are acquiescing constantly to it instead of to individual personal whim, you come to realize that that is true - the two really are one. Primarily spiritually. The biological is the distraction which may lead you to the wrong identification.

According to Campbell, the necessary function of marriage, perpetuating ourselves in children, is not the primary one; that's really just the elementary aspect of marriage. There are two completely different stages of marriage. First is the youthful marriage following the wonderful impulse that nature has given us in the interplay of the sexes biologically in order to produce children. But there comes a time when the child graduates from the family and the couple is left.

Marriage is a relationship. When you make the sacrifice in marriage, you're sacrificing not to each other but to unity in a relationship. The Chinese image of the *Tao*, with the dark and light interacting - that's the relationship of yang and yin, male and female, which is what a marriage is. And that's what you have become when you have married. You're no

longer this one alone; your identity is in a relationship. Marriage is not a simple love affair, it's an ordeal. and the ordeal is the sacrifice of ego to a relationship in which two have become one. It is, in a sense, doing one's own thing, but the one isn't just you, it's the two together as one. And that's a purely mythological image signifying the sacrifice of the visible entity for a transcendent good. This is something that becomes beautifully realized in the second stage of marriage, what I call the alchemical stage, of the two experiencing that they are one. . .

It's primarily a spiritual exercise, and the society is supposed to help us have the realization. Man should not be in the service of society, society should be in the service of man. We presume we make a commitment for better or for worse. That's the remnant of a ritual. And the ritual has lost its force. The ritual that once conveyed an inner reality is now merely form. And that's true in the rituals of society and in the personal rituals of marriage and religion. (Campbell).

The spiritual value of *Gender Reunion* and the "fertility bridegroom" has been sponsored by Chris King's Eden Diversity Project at <http://www.dhushara.com/> and his listserve Wedweave. There are discussions around issues such as Sacred Marriage: Relationship as Immortality. All our cultural experience and individual conscious existence depends on the fabric of life, the germ line, and this comes not from male dominion, but from the mutual sexual relationship between the two genders. In this relationship, the female stands central as the sole bearer of cytoplasmic inheritance and the principal investor in time and resources. However the male likewise contributes genetically in full and pivotal share. Immortality is thus not the domain of one gender but of the relationship between woman and man. Cultures which fail to respect these socio-biological realities lead to gender oppression, especially the repression of women.

Attunement with the immortal continuity of life likewise comes from the relationship between woman and man, not from one gender alone. Each sex is sterile on its own and mortal as individuals. The family relationship is an embodiment of this ongoing immortal web of life. Relationship is conceived spiritually in the form of 'holy matrimony', the harmony that is produced from the creative relationship between woman and man. It is thus the sacred marriage in which we find God and Gaia, the Feminine face of deity, in divine union.

The healing of the epoch of male dominion requires mankind to atone for the errors of his ways and come to terms of learning, healing and new wisdom, but true liberation arises from reconciliation, not dominion in any form, male or female. The embodiment of reconciliation is forgiveness and the celebration of it is the sacred marriage. This marriage is by definition one in true freedom for each gender. That is its very sacredness - its complete freedom, combined with the devoted commitment to one another the marriage expresses. This is a paradox of trust. It does not imply any form of possession. Solomon did not possess the Queen neither she him.

The Bridegroom archetype is in a sense the heroic journey of every shaman on the vision quest, every budding troubadour, and every knight of courtly love, from Dumuzi through Adonis to Lancelot.

Inanna sang: "Make your milk sweet and thick, my bridegroom.
My shepherd, I will drink your fresh milk.
Wild bull, Dumuzi, make your milk sweet and thick.
I will drink your fresh milk...."

The Jewish messiah is also a fully-human figure, traditionally a heroic priest or king who performs genuine social redemption of his people - inspiring long-term future goodness. David, Solomon and Cyrus represent different forms of 'anointed' or messiah, with Solomon figuring very strongly as the Bridegroom in his renowned sacred marriage with the Queen of Sheba, which is the subject of the Song of Songs, perhaps the most fertile passage ever written in both the mountains of sexual spice and the image of the beloved as the progenitor of fertility: "Thy teeth are as a flock of sheep which go up from the washing, whereof every one beareth twins and there is not one barren one among them"

I rose up to open to my beloved and my hands dropped with myrrh,
and my fingers with sweet-smelling myrrh, upon the handles of the lock.
I opened to my beloved; but my beloved had withdrawn himself and was gone:
my soul failed when he spake : I sought him, but I could not find him;
I called him, but he gave me no answer

Later Jesus adopted the Bridegroom archetype in the prophecy of Isaiah 61 in pronouncing his manifestation at the Nazareth synagogue, for which he was nearly thrown off a cliff.

He hath clothed me with the garments of salvation
as a bridegroom decketh himself with ornaments
and as a bride adorneth herself with her jewels
For as the earth bringeth forth her bud,
and as the garden causeth the things
that are sewn in it to spring forth
so the Lord God will cause righteousness
and praise to spring forth before all the nations.

This set the tradition on to a new extreme Zoroastrian form of cosmic renovator, Jesus promising the Kingdom as the messiah of history redeeming the Earth from the sins of woman, stemming from Eve and the Fall - the son of man, the archetype of Adam:

And he said unto them,
Can ye make the children of the bridechamber fast,
while the bridegroom is with them?
But the days will come,
when the bridegroom shall be taken away from them,
and then shall they fast in those days.

This mission culminated in the Crucifixion, and the exaltation of Magdalen on the third day in the very tradition of Inanna repeating the very words of the Song of Songs calling for the lost Adonis:

'Woman, why weepest thou?' She saith unto them,
'Because they have taken away my Lord,
and I know not where they have laid him' ...
Jesus saith unto her, Mary.
She turned herself, and saith unto him, Rabboni;
which is to say, Master.
Jesus saith unto her, 'Touch me not' ... ;

The rapid elevation of Jesus to cosmic Christ was followed by the suppression of the gnostics and the repression of women all round. Good cause for suspicion of Jesus and his

motives, especially when certain gnostic texts had him say "I have come to destroy the works of woman", namely Eve.

However the fertility Bridegroom is a very different 'kettle of fish' from the ichthys of Christianity. Where Jesus was the bridegroom of the church on the marriage bed of the Cross, the fertility Bridegroom is the bridegroom of the immortal feminine face, embodied in Gaia - the living earth. The fertility Bridegroom starts out by breaking all the curses ever made against women:

I unpronounce original sin.

I unpronounce dominion over nature.

I unpronounce the Anathema maranatha.

I unpronounce the death curse on the witch.

I unpronounce stoning for adultery

or any other violent punishment.

I apologise to all women for the sins of man.

and promises to stand beside women and men of like spirit to safeguard the future of life:

I vouchsafe to the immortal Feminine the troth of sacred marriage.

I promise to stand by the Bride whatever the cost

to culminate the patriarchal epoch for the future of life on earth.

This is literally turning the tables on the whole paradigm, giving not only women but men of like spirit, liberation from the binds of orthodoxy and the heritage of Armageddon. Women as a gender alone struggle to achieve an equality which will only be achieved slowly world-wide because of ingrained patriarchal supremacy in diverse cultures spanning all the continents. By the time eventual social change restores the freedom of women world-wide, nature will have been so damaged that our heritage of biodiversity will not be with us for the future of humanity and the unfolding of life. By forming a relationship now in which female and male meet in reconciliation, a broad consensus for feminine sustainability can be achieved in a way which would be impossible otherwise. It is possible to combine vehement and oceanic support for women's liberation and empowerment worldwide with constructive gender engagement.

Although the fertility principle and the sacred marriage rite extols sexual union, life, birth and spring as symbols of life burgeoning forth, rather than the cult of death, fertility in this sense does not imply rampant sexual reproduction, but furthering the ongoing continuity of life into the unfolding future - what furthers the sustainable diversity of life. Fertility thus comes with natural moderation of population. A key to this is women having freedom of reproductive choice. The key role of the fertility Bridegroom is to act as a healing catalyst, in cooperation with women and men of like spirit, to save the world's living heritage for the unfolding future, by liberating the paradigm into the epoch of the Tree. The key to the whole existential dilemma we face is saving as much of the diversity of life as possible now, so that those that follow us will have their rightful share of the diversity of life instead of a veritable genetic desert of our own making, caused by the selfishness and greed of what is almost a single generation.

King's group invites all women to join with with men of like spirit in forming a feminine Wisdom democracy to conceive apocalypsia the bridal unveiling and to fulfill the unfolding of the epoch of the Tree of Life, the liberation from prison of those that are bound and the Sakina of the dove of peace.

I covenant to abide by the ethics and conception of this democracy in apocalypsia in respect of the principle that all of us in our vision and divinity are incarnation equals - living partners moving on the face of the deep. This is to end the tradition of the 'lord messiah' in being the humble follower of democracia - collective wisdom through peer review.

This division of sexuality and spirituality is rather recent in the history of religious experience. In most pagan societies, sexuality is seen as an important aspect of uniting the spiritual with the physical and with the worship of gods and goddesses. In many ancient cities, sacred prostitutes "served" at the temples in order to be the mediatrix between the gods and humans. One writer notes,

Now certainly I am not suggesting that true sexuality and spirituality should be untied in this way.

After all, this was what the Apostle Paul was trying to straighten out in the Corinthian church

because some of the believers were apparently still having intercourse with sacred prostitutes (I Cor.

6:15-20). In order to correct this perversion, he encourages the cultivation of a sexual relationship in marriage as a prevention from this abundant "sacred sex." Apparently, even the married couples had become abstinent as an overreaction to the Corinthian extremes and had thrown the sexual relationship totally out of marriage. To this problem, Paul tells them to "stop depriving themselves," and to recultivate the sexual area of their marriage lest they be severely tempted by the culture (or Satan). In similar fashion the Church has been reacting and overreacting on the relation of sexuality to spirituality ever since.

CULTURAL COUNTERPARTS

**Juno (Roman)
Lakshmi (Hindu)
Parvati (Hindu)**

CONTEMPORARY EXAMPLE

In addition to now-passed Princess Diana, there are other famous Hera women whose husbands are wealthy and powerful enough to challenge the limits of their marriage. Ivanna Trump is another recent example; Jackie Onassis.

Hera has never been psychologically far from our thoughts. She has appeared in the political arena as the thorny problem of the ERA amendment. Increasing the political rights of women and ensuring equal pay for equal work, this Equal Rights Amendment has not been able to prevail over the socially dominant patriarchy.

It is interesting that Hera was known in the past as Era. Thus, she is the underlying archetypal dominant of the ERA. All those wives and mothers proclaiming their equality in the paternal society are devotees of Hera. Working women who have experienced severe discrimination in the job market are now "venting their spleens."

DIALOGUE WITH HERA

Through dialoguing with Hera, we can learn about our unconscious attitudes toward marriage or bonding with a spouse. She can show us how we subconsciously are feeling toward our spouse or the institution of marriage at any given time.

In active imagination she may appear as jealous, bitchy, vindictive, frustrated or argumentative, depending on how the primary relationship is going. At least, when you agree to dialogue with her, she gets Her voice, at last. She might appear as the elegant bride, or celestial queen. If you have lost a loved one for whom you still grieve, she may appear as Hera Chera, who has lost her mate.

She can also inform us about our individuation process when she is seen as the Soul-as-Queen and her husband Zeus-the-King is Spirit. Watch your dreams for images of weddings and nuptial festivities. It is better for you to be a participating onlooker at these events, rather than the bride or groom.

Imagining oneself as the King or Queen without the proper protection from archetypal identification is probably grandiose fantasy, rather than true transformative process work. This would mean your ego or personality is too strongly identified with these powerful archetypes, and this means being in a state of possession or compulsive dominance of your life by the archetype. As an observer you can appreciate the Royal Marriage taking place in your psyche with better results in daily life.

If you are dating, and are really looking for a potential spouse, or if you are engaged and fantasize continually about your impending marriage, you can bet Hera is at work in you.

For Hera, the accent is on the marriage itself, where a goddess such as Demeter primarily seeks a father for her children.

If you are single and considering marriage, ask Hera in dialogue just what type of spouse will fulfill her requirements for a multidimensional relationship. But remember, with Hera there will always be something that is not quite right, some fatal flaw to spoil the nuptial bliss. Remember Hera was the most jealous woman in Greek mythology.

Ask Hera about her feelings concerning all the aspects of your relationship which include physical, emotional, intellectual and spiritual bonding. If your physical relationship is off you might want her to summon help from Aphrodite; if your spouse won't talk to you about meaningful issues of the day, perhaps Athena could help.

Gods and goddesses do not exist in vacuums or isolation. Once you are familiar with the basic cast of players, your inner dramas can have dynamic interaction of several archetypes. They can dialogue with one another, as well as you. But, be careful--don't amass too much power in one place at once or you will be overwhelmed and unable to integrate the results of the exercise.

If you have ever been divorced, dialogue with Hera concerning this event. She can inform you about subconscious currents which brought the downfall of the marriage. You may have known the conscious reasons for your split, but there may be many unresolved issues remaining to explore with her help.

HERA IN YOUR LIFE

- 1. Despite current circumstances, at this point in your life, which do you prefer most -- to be married or single? If you are single, do you find yourself continually "sizing up" eligible members of the opposite sex as potential mates?**
- 2. When you date(d) do you see several others simultaneously (Aphrodite or Don Juan) or do you tend to focus on one lover at a time (serial monogamy)?**
- 3. If you are married now, how do you feel consciously about your relationship on the physical, emotional, intellectual and spiritual levels? Be honest with yourself. Are you still as compatible as when you wed? Are your growth rates similar or is one partner overly dependent or immature?**
- 4. In what ways does your commitment to relationship limit your sense of personal freedom (Zeus); how does it expand your potentials?**
- 5. In Hera's cult, her marriage was periodically renewed. Can you do this within the context of one primary relationship for a lifetime, or have you been remarried instead? Name 3 ways to keep the freshness of your marriage alive.**
- 6. What makes the Hera-in-you jealous, vindictive, or explosive? Do you repress her sharp tongue, or vent your wrath? If so how do you deal with those feelings or resolve the situation?**

7. Divorce is also part of the Hera syndrome -- a sort of metaphorical ritual purification when an outworn relationship has turned poisonous. Briefly describe your emotional, intellectual and spiritual attitudes toward divorce in general.

8. Has the projection of your anima or animus ever fooled you into thinking you had met your soul-mate? Do you have romanticized notions about the soulmate? Each soul has the potential for wholeness within itself. So partners may be well-suited but not necessarily "fated" for one another. This sense of destiny comes from projecting our soul onto another, which sometimes results in unrequited love.

9. Are other gods intruding on your human marriage so that Hera feels shortchanged in time or depth of relationship? For example, Aphrodite trying to steal one's spouse, or Athena making one's spouse workaholic. Hephaistos might make a spouse seem dull and uninteresting, Demeter diverts most of the attention toward the children, while Dionysus upsets the home with crises produced by intoxication, and Artemis prefers to be independent and live in solitude.

10. Have you ever had to deal with an adulterous spouse? How did you feel and react? Did it destroy your relationship, ultimately? How did you deal with rejection?

11. Can you remember any dreams of weddings from any period of your life? If so, what elements within yourself do you think were uniting? Consider the outer circumstances at the time. You may dream of a positive experience of being the wedding partner of a sacred figure. This is an inner experience of wholeness if there is a mysterious and divine emotional effect on you or you feel erotic bliss and union with the partner when it embraces you.

This is a dream of the Sacred Marriage, which may foretell its actualization in the future, or just show its potential. It is a mystical reunion, which brings peace, yet is electrifying. This is a dream of Hera the Perfected or Fulfilled One.

12. How do you feel about women's rights proposals such as the now-defunct Equal Rights Amendment (E.R.A.)?

13. Who are you looking to for assistance, direction or learning? What law or rule do you feel you have transgressed? And who would hold you accountable? What traditions are you upholding or rebelling against? What are you learning?

MYTHEME SYNOPSIS

I. Hieros Gamos and the Succession Myth

A. Hieros Gamos: "sacred marriage"

1. usually sky god and earth goddess
2. aetiology of vegetation
 - a. storm as sexual intercourse
 - b. rain as semen

B. Hieros Gamos I: Uranus and Gaia

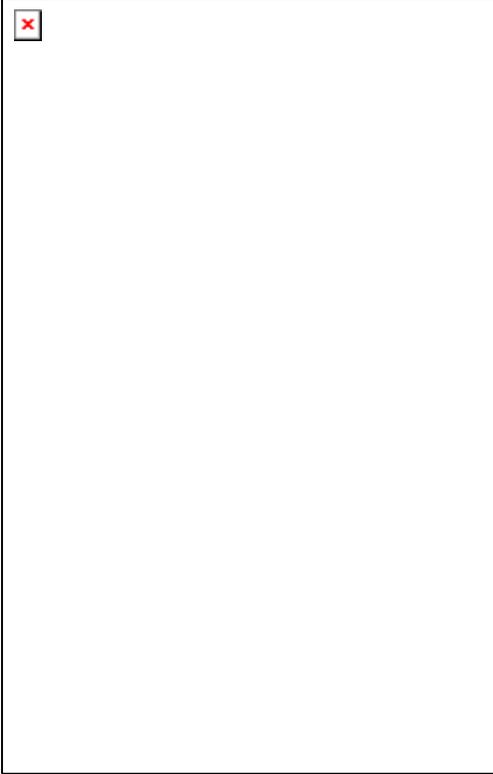
1. Uranus the first "evil":
 - a. tries to stop the natural progression or order of things
 - b. motivation: jealousy of children
2. Gaia uses craft to retaliate

- a. wily Cronus responds to the challenge
- b. from the castration (separation) comes:
 - 1) Erinyes (Furies): avenging spirits
 - 2) Giants
 - 3) Aphrodite; represents sexual desire
- c. Uranus and Gaia are retired; become advisors (mainly)
- 3. Progeny of Gaia and Pontus
 - a. mostly monsters--e.g., Harpies, Sphinx, Gorgons, Cerberus
 - b. mostly combinations of human and animal parts
 - c. Nereus, Old Man of the Sea: had prophetic powers
- C. Hieros Gamos II: Cronus and Rhea
 - 1. Cronus is the first king; Golden Age for humankind
 - a. told he will be replaced, so suspicious and clever
 - b. swallows his 6 children, the "Olympians" to be
 - 2. Rhea advised by Gaea and Uranus: baby Zeus spirited away
 - a. raised on Crete: reflects history
 - b. Amalthea: goat-nurse
 - 3. Zeus comes of age
 - a. Metis ("Cleverness") gives Cronus an emetic
 - b. omphalos ("navel") stone
 - 4. Titanomachy (Clash of the Titans):
 - a. old gods vs. new gods;
 - b. brute physical force vs. mental and physical skill
 - c. Themis and Prometheus side with Zeus
 - d. Zeus releases Cyclopes and Hecatonchires; gets their help
 - e. 10 year stalemate broken; Titans relegated to Tartarus
 - 5. Typhoeus (Typhon): Zeus' greatest challenge (Typhonomachy)
 - a. dragon, son of Gaea and Tartarus
 - b. represents the life-destroying negative side of the female
 - 6. Zeus defeats Giants
 - a. "revenge children" of Gaia
 - b. pile mountains on top of each other
 - c. no wonder Zeus is a bit touchy.
- C. Zeus as king
 - 1. Zeus appointed king (unlike his father)
 - 2. delegates authority (unlike his father)
 - 3. takes Metis ("Cleverness") as his first consort
 - a. prophecy that he would be deposed by his son
 - b. cleverly swallows Metis (unlike his father);
 - c. she becomes subordinate to him; he becomes wise
 - 4. birth of Athena
 - a. Zeus the new creator (male)
 - b. creates from the head (mind)
 - c. she is forever loyal to him; no threat
 - 5. defeat of Giants (Gigantonomachy)
 - a. born from Uranus' genitals
 - b. wild, primordial, natural forces
 - c. order over nature

*All homage to Hera, stately equal of Zeus.
Her power and position are put to great use.*

CHAPTER V: THE HIEROPHANT

HERA



Hera is a variation on the theme of the matriarchal Great Goddess. The Great Goddess had many lovers and was extremely independent until the arrival of the patriarchal northern culture in the Mediterranean area (see Reisler's *The Chalice and the Blade*). They brought their sky religion with its chief exponent, Zeus.

After a 300 year courtship, the fusion of cultures was consummated by the hieros gamos or Royal Marriage of Zeus and Hera. Hera settled into her new role as exemplary wife, giving up her polyandrous lifestyle, but not her independence. She became the pattern for all good married women, whose pasts are forgiven if not almost forgotten. Hera is therefore the patroness and guardian of the institution of marriage, as well as the legitimate spouse of Zeus. Many of today's conjugal unions are about healing the millennial split between patriarchy and matriarchy -- the war of the sexes -- through gender reunion.

Her authority over the marriage came from her originally wider interest in the lives of women in general. She is also associated with certain aspects of fecundity and childbearing, even though her union with Zeus was not characteristically fertile.

She combines both earthy and lunar aspects in her personality, which makes her both practical and soulful. Hera has a deep shadow nature, and she has the dubious distinction of being the most jealous character in mythology.

It may seem strange to link Hera with "The Hierophant," but not when certain elements are considered. The sacredness of marriage is stressed in all the major religions of the world as a means of channeling the instinct of sexual desire, and fulfilling the mating instinct.

The Royal Marriage of Zeus and Hera also symbolizes wholeness of the individual personality. The Hierophant exemplifies this male-female wholeness. This prefigures the spiritual marriage of the soul with the celestial Lord, where the human soul is likened to a "bride." In ancient times is marriage of god and mortal was celebrated anonymously with priestesses of the great goddess.

"The 'heiros gamos,' the sacred prostitute was the votary chosen to embody the goddess. She was the goddess' fertile womb, her passion and her erotic nature. In the union with the god, embodied by the reigning monarch, she assured the fertility and well-being of the land and the people. . . she did not make love in order to obtain admiration or devotion from the man who came to her, for often she remained veiled and anonymous; her raison d'être was to worship the goddess in lovemaking, thereby bringing the goddess love into the human sphere. In this union -- the union of masculine and feminine, spiritual and physical -- the personal as transcended and the divine entered in. As the embodiment of the goddess in the mystical union of the sacred marriage, the sacred prostitute aroused the male and was the receptacle for his passion The sacred prostitute was the holy vessel wherein chthonic and spiritual forces united." (Qualls-Corbett)

There are many kinds of hieros gamos unions: the primordial hierosgamos of Gaea and Uranus, the "sacred sex" with a hierodule or sacred prostitute, or sexuality in marriage blessed by the priesthood as the spiritual dimension of marriage. Hera embodies the later

kind. In the balance of power, there are marriages of equals and there are marriages where one or the other spouse is generally dominant.

Existentially, there are many kinds of marriages: those based on contracts, children, shared interests, friendships, partnerships, polyamorous, alchemical and soul unions. The best marriages put the union first, even above the children who then feel more secure. They are a combination of partnership, friendship, sexuality, nurturing, acceptance and spirituality. The link to the alchemical "chymical marriage" implies chemistry is significant. Nevertheless, marriage is a crucible of spiritual transformation.

The Hierophant, the priest who joins people with one another and with God, is associated with the astrological sign Taurus, and shares traits with Hera. In her original cult-forms she was known as the "goddess of the yoke," "rich in oxen" (Taurus being the Bull), who kept sacred herds of cows. She is "cow-eyed" for her large brown eyes. As "goddess of the yoke" she prefigures the devotion to the sky principle seen in modern participants in Yoga (which also means "yoking"). The trump is associated with the rules of obedience and loyalty--to a guru, organization, work, country, etc.

On the physical plane, Hera manifests as the mating instinct, childbirth, parthenogenesis, and the flow of adrenaline especially in jealousy. Emotionally she reflects the dual faces of marriage when perfected or thwarted. Divorce is the cognitive notion associated with her, while her spiritual myth is the sacred marriage.

As an Olympian, Hera was the daughter of Cronos and Rhea. She was the sister of Demeter, Hades, Hestia, Poseidon, and Zeus. She was mother of Ares, Arge, Discordia, Eleithya, Hebe and Hephaistos, and probably Typhon.

Hera knows how to play the societal game. She teaches and upholds the traditions of society, giving and receiving advice. When she wants to she displays loyalty, obedience, and discipline. She makes authoritative allies and draws on the powers of moral law. Hera was famous for her tirades against her husband because of his philandering. The former plight of Princess Diana and her response to Prince Charles's affair was a classic Hera role.

PHYSICAL FORM

Hera is a goddess distinguished by her great antiquity. Her name means simply 'Lady,' and her original consort was known simply as 'Hero,' or Lord. It is interesting to note that the very first temple at Mt. Olympus was hers. It dates from the second half of the 7th Century B.C. to 1000 B.C.

She is also the official patroness of the OLYMPIC GAMES, which were originated by her muscular hero, Herakles (Hercules). The fact that his twelve labors were in service to her is shown by his name being derived from her own.

The stories and rites surrounding Hera indicate an instinctual background as the mating instinct. The antiquity of the goddess shows the instinctual nature of her origin. This instinct seeks fulfillment of a particular sort which will not be sublimated to other goals. It has very little to do with lust or sex, per se. If this instinct is forced to deviate from its goal, it will instead turn negative, as Hera's personality shows.

The wifehood of Hera seeks as her essential mode-of-being the required marital union with her spouse on several levels. She is not concerned merely with his physical fidelity (although it would be nice), or his ability to father children upon her, or be a responsive parent to the children.

Rather, she is driven by a compulsive necessity to be perfected through conjugal union. The instinct for a multi-level intimate relationship is natural. She wants to know the ins and outs of her spouse. Their union must include physical, emotional, psychological or intellectual, and spiritual levels.

Curiously, like many "royal couples," Hera and Zeus are both siblings and mates. This royal marriage was literalized in ancient Egypt, through sibling consorts for the pharaoh. This symbolism of brother/sister love represents the restoration of bisexual totality. It is a psychological resolution of original brother/sister duality. They are aspects of the same essence. Their re-union is expressed in an alchemical verse:

*White-skinned lady, lovingly joined to her ruddy-limbed husband,
Wrapped in each other's arms in the bliss of connubial union,
Merge and dissolve as they come to the goal of perfection:
They that were two are made one, as though of one body.*

On a more practical level, Hera cannot abide having a "token spouse" or an official husband who periodically checks in while he carries on his life elsewhere. His proximity and commitment to her are critical. She embodies the desire for the archetypal hieros gamos, or sacred marriage, which occurs between male and female on the physical, emotional, intellectual, and spiritual planes of experience.

Even while dating, Hera is always looking for a potential spouse. Hera feels essentially incomplete without a partner. Marriage to her means fulfillment and satisfaction. In contrast the Amazon likes the "thrill of the chase," while Aphrodite seeks immediate physical gratification, and Athena companionship or perhaps a useful business alliance. Though their essence is Feminine, these forces operate in both men and women.

As wife, Hera wants to share her spouse's day-to-day activities. You bet she wants to stay abreast of the business dealings. Why, what if he should die, and she needs to take charge of the estate? If another archetypal priority supersedes the Hera drive, she may avoid being prepared for such contingencies, yet fully able to take the reins of command.

Hera would probably prefer to have Zeus all to herself if her secret wish were known, but then how could he be Zeus in such a context? If she got her wish, imagine how they would quarrel under such close confinement. Each are accustomed to maintaining many outside interests. Besides, in any setting, Zeus cannot bring her to fulfillment as long as he carries her own unlived masculinity or animus.

Hera wishes to experience depth of relationship with Zeus. To really do that, she needs to develop a relationship with her own animus, but that may seem too abstract. Inner work may not come naturally to her, but therapy may become her refuge if she becomes a dissatisfied wife. To her, marriage is no abstract institution.

She does not wish Zeus to assert his independence from wedlock with her. She doesn't even wish him to turn inward on his own resources, as she probably needs to do. If he follows his own inner feminine voice and becomes too introverted, she feels thwarted in her fulfillment since he may become emotionally unavailable.

He has turned inward to his brilliant daughter, Athena, his brainchild with all the ideas. Hera can also be jealous of her spouse's attention to real children, parents, job, or other relationships. This reaction veils an underlying fear of abandonment.

The fact is that Hera and Zeus are mutually dependent on one another for the fulfillment of this basic drive, the mating instinct. Depending on the basic emotional adjustment of the personalities in the relationship, this will manifest as negative co-dependence, positive inter-dependence, or a combination of these patterns.

Marriage requires active listening, not just to the partner, but to one's deep self. Problems in marriage reflect voices from the unconscious which need to be heard. Marital problems are a product of the inner conflicts each of the partners bring to the relationship.

But these very problems, which crop up in the marriage arena, reflect unconscious forces which have the potential for bringing each partner to wholeness, the inner marriage within oneself. It means integrating the other side of the personality so its energies can be used in constructive ways. It is the marriage of the conscious personality and the anima or animus.

This is the daily confrontation of married life, getting up and going to bed together, merely being in one another's presence. It is transformative; it is a yoga or "yoking" of individuals in the service of their union. Marriage itself can be a spiritual path, or approached from a spiritual perspective.

Having meaningful interaction and true intimacy requires renewed concern for the "now." The sacred marriage always takes place "now." There is no emotional reliance on a golden, honeymoon past nor escape to an idealized future when "surely everything will be better."

The sacred marriage is an arena for individuation of the partners through the mutual give-and-take of everyday life. The sacred marriage is no final act but requires periodic renewal. This cyclic renewal is intrinsic to the Hera cult. She was symbolically purified and renewed her commitment to Zeus in recurrent wedding ceremonies. So when we choose in life to renew our marriage vows on an anniversary, we follow Hera's lead.

These multiple weddings indicate a return to the condition of unconscious, original identity. At the time of the wedding, Zeus and Hera are truly one through the process of identification or participation mystique. But, inevitably, another crisis situation creates a critical atmosphere, but it is a necessary prelude to conscious realizations. And the cycle goes on...

In her article "Sexuality and Marriage: Divine Marriage or Divine Alchemy," Wendy Doniger (the Mircea Eliade Professor of the History of Religions at the Divinity), points out that sexual issues have always been at the heart of religion, with its concern for procreation, origins, birth, the survival of the human race. Rabbis, Christian clerics, Imams, and Brahmins have claimed the ultimate authority over sexuality until relatively

recent times, and in many ways they still do. She makes many good points about their assumption of dominion in this area of human life.

Why should a priest legislate sexuality? There are two sides to this question: Why should a priest want to interfere in this area, and why should people allow him to do so? The answer to the first side is that sexuality is among the most basic of human needs, the key to the survival of human life. To control sexuality means to control everything that stems from it — politics, power, everything. Moreover, that very same fact — that this force is so deeply imbedded in the human organism — suggests the answer to the second side of the question. For sexuality, like death, is an area of great vulnerability, mystery, danger; it is, ultimately, inaccessible to reason or to science. This is the shadowy place in which people feel a need for religion, where priests are invited to enter in or offer to enter in.

The sexual connection between god(s) and humans is often envisioned as a kind of marriage — the hieros gamos of the ancient world, the nun's wedding to Jesus — or as sexuality — the gloss on the Song of Songs, Bernini's Saint Theresa, and so forth. But it is also envisioned as divorce or adultery. God's abandonment of his worshipper and human adultery often become metaphors for one another.

Stories about human women and men become inextricably entangled in the toils of human sexual tragedy and take flight in the illusion provided by myth. But the banal and the magical are by no means mutually exclusive, for the royal road that connects myth and experience is a two-way stretch. The myth is a bridge between the actual human sexual experience and the fantasy that grows out of that experience and in turn transfigures it.

The meanings of these myths must be sought not merely in the superficial anthropomorphic forms and quasi-human events but in darker theological questions. Irrationalization occurs in mythology when ideas about men and women are transformed into myths about gods and goddesses, but the opposite process, rationalization, is equally common and important, when ideas about gods and goddesses are translated into myths about men and women.

Gender plays a central role in the wider religious concern with order. Broadly speaking, a structuralist might say that, in religious thinking, gender/sexuality = culture/nature. Religious communities and dogmas tend to disqualify the pieces that don't fit their paradigm; if the paradigm is defined as male (as it usually is), they discard or devalue the female (or the homosexual, or the bisexual). Thus, women (and, sometimes, eunuchs or bisexuals) are usually cast as the villains in the founding myths dealing with such central religious topics as death, evil, and disease.

Traditional religions regard sexuality as, overwhelmingly, heterosexuality. What homosexual themes there are in traditional myths are seldom overt, because such myths almost always have, as a latent agenda, the biological and spiritual survival of a particular race, in both senses of the word: race as contest and as species ("us against them"), the "outnumber-them" agenda ("be fruitful and multiply"). Such myths regard homosexual acts as potentially subversive of this agenda (or, at the very least, irrelevant to it, perhaps not part of the problem, but certainly not part of the solution).

The ascetic aspects of Hinduism and Christianity, among other religions, create a violent dichotomy between heterosexual marriage, in which sexuality is tolerated for the sake of children, and the renunciant priesthood, in which asceticism is idealized and sexuality entirely rejected, or at least recycled. In this taxonomy, homosexual love represents what Mary Douglas has taught us to recognize as a major category error, something that doesn't fit into any existing conceptual cubbyhole, "matter out of place" (in a word, dirt). (Here we may do well to recall the ways in which homophobic language often employs "dirt" symbolism.) Traditional religious texts regard homosexual union not, like heterosexual marriage, as a compromise between two goals in tension (procreation and asceticism), but as a mutually polluting combination of the worst of both worlds (sterility and lust). The myths therefore seldom explicitly depict homosexual unions at all, let alone sympathetically.

Other mythologies of sex and gender are not necessarily open to more liberal constructions of gender than our own; some of them are simply open to different constructions from ours. Yet the very fact that they explore options that we have not even considered gives them the power to make us notice the ways in which our own religious traditions legislate, often without our conscious knowledge, our sexuality.

Occupations associated with Hera include:

<p>boardmember chairperson faithful spouse "first mate" first lady heir hostess housewife investor landlady</p>	<p>matron mother monarch patroness philanthropist queen "rich bitch" visionary widow wife</p>
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EMOTIONAL IMAGE

Most of her stories are connected with her relationship with Zeus. Some evidence in texts that a more equal power relationship than that presented in Homer. Hera's main spheres of influence are marriage, weddings and childbirth. The divine marriage, hieros gamos, is critical to her cult (cf., Iliad XIV.152-353). Hera shares with Gaia certain powers and conflict with the male. Version that Hera created Typhon; Birth of Hephaistos; Attempted overthrow of Zeus by Hera, Poseidon and Athena. Inherent dichotomy and contradiction in Hera (inversion of the good wife) seen in her: Marriage; Relationship with her children; Story of Ixion reflects her ties to the patriarchy.

The emotional dynamics of Hera revolve around being perfected or thwarted in her mission. When she is thwarted she is essentially animus-possessed and rages against her "persecutors." She becomes over identified with her own masculine aggressive side, and paradoxically rejects her own feminine identity. She may be the victim of a negative mother complex, and be too one-sided.

Hera's jealousy is extreme enough to be called pathological. She doesn't have jealousy as an emotion. Hera is this archetypal form of jealousy of the spouse's attention. To feel this feeling is a form of merging with the goddess -- an epiphany. But it may feel more like being possessed by a demon or the "green-eyed monster."

On the positive side, Hera embodies the feminine portion of the transpersonal authority, the Self. Inner contact with this archetype for a woman is an experience of the core of her being. To be in harmony with herself, she must serve this inner dynamism. We can view this modern worship of Hera by giving her our attention.

A neurotic or under-developed man would have to come to terms with the authoritarian aspect of the mother-complex. A man involved in developing his "feminine" side would serve Hera over and against the logos principle, listening to his heart as well as his head. This is generally a stage in the psychic life of men whose quest for the Self culminates in the PUER/SENEX reunion, which expresses itself through "masculine" symbolism (see Chapter XXI). The man in touch with the deep values of spousal intimacy is her 'hero.'

The fulfillment and wholeness of Zeus and Hera consists of a dyadic relationship. "Being a couple" is her big deal! They are two-in-one, contained by their relationship, unless possessiveness flares up. If they become estranged emotionally, she may repress the direct expression of her sexuality, projecting onto Zeus the fulfillment of her repressed desires. He manifests it through an affair. Psychologically, the "other woman," so despised, represents unknown aspects of her own being.

Hera wants to be in the presence of her beloved, because she derives her fulfillment through involvement. She always expects a deeper commitment from her spouse than she will ever get, however. The intense involvement is not always pleasant. Zeus and Hera are the types who figure that "negative attention is better than no attention" in their exchanges.

Hera is first and foremost the dutiful wife of Zeus. We might call her the wife of the CEO of Mt. Olympus. She is as potent of a directing force as he is. But in a patriarchal society her powers tend to appear in negative forms. Managerial ability can become an exaggerated urge to control or have power over those closest at hand -- the family, who tend to resent it.

Zeus is notoriously promiscuous, and Hera directs a great deal of animosity at Zeus and his mortal and immortal paramours. Hera can be both jealous (internal) and vindictive (extroverted). She must have been kept pretty busy by Zeus' philandering. She must have been in a perpetual tizzy, because the number of his liaisons is legendary. But Zeus had no immunity against the onslaughts of Hera! The masculine principle, as represented by Zeus, is far from omnipotent when challenged by her powerful contrary principle.

Hera is repeatedly the victim of her own powerful emotions. The volcanic quality of her animus (inner masculinity) is embodied in Hephaistos, her lame son. This issue of parthenogenesis was conceived without a father, from her jealous brooding. As such, he came to rule volcanic activity, both physical and emotional. When moody, Hera is capable of veritable explosions of strong emotions.

Hera is outspoken and she has a judgmental, scolding tongue. But she is not always overt in her attacks. Despite her moral indignation at the behavior of others, she is more than willing to manipulate the feelings of others to suit her own needs and desires.

The Hera personality is seen in the grande dame type of woman. She is given to largesse or charitable activities. She has an aristocratic aura which assumes a right to command, both activities and attention. She is born-to-order and scarcely questions this destiny as anything other than her rightful position in life. She may express herself through becoming a patron of the arts, or an administrator, (for example, a Dean of Women, or Board Member).

As the result of her strong social concerns, she pays special attention to keeping herself attractive. She is always fashionable and publicly appropriate. She has a strong sense of honor and duty. Many find these qualities present in former First Lady, Nancy Reagan. Before her, the personality of Jackie Kennedy fascinated the world.

Hera prefers to grapple with concrete details, rather than muse on intellectual theories or abstractions. This can be valuable in coordinating an estate where there is always much to be done. Even though she is a bit eccentric, her innate feel for social awareness allows her to integrate and maintain acceptance by those of all social levels. Her mores will invariably reflect those of her surrounding culture.

Some people are grappling consciously with these emotional issues, and seeking the advice of the Goddess for solutions: At <http://www.headlinemuse.com/aphroadvice/Mayissue.htm> we find: "UpdatingAphrodite" , an archetypal "advice" column written by Laura Shamas which explores questions about love and life from a mythological perspective.

Q: Silly as this may seem, I have this internal struggle going on between my own "whom does the grail serve" between Aphrodite and Hera. I have been "claimed" by Aphrodite early and could not imagine a life without her beauty, strength, passion, dignity and sensuality that she has graced me with being a woman...But, I feel this other great pull of wanting to attract a life-mate. Certainly not Zeus with all his philandering, but, I know Aphrodite wasn't thrilled exactly her "partner" or the whole "till death do us part ritual" either and dallied around, quite nicely, thank you! And Hera was the one to call for the sacred marriage and also the queen of the Gods. So, how do I get the best of both worlds here? I want the two together and yet they seem so opposed. Please help me out here. - DIVINELY DEVOTED
Dear "Divinely Devoted,"

Your question does not seem silly at all. It's an important one. You have articulated something that lots of women feel, especially since we have "cultural reinforcement" (through media images, movies, etc.) that we should use Aphrodite's talents only as a means to lead to Hera's hieros gamos (sacred marriage), but not use the Goddess of Love's gifts after the altar. Aspects of both archetypes resonate with most women: how do we live with the tension between "loyal mate," keeper of the fidelity flame, and "sensual lover," the generative, female sexual spark--which may not be so easy to limit to just one partner? I think the answer to your question "Whom does the grail serve?" is: both of them, if you want a long-term relationship. Their realms are not as "opposed" as they might seem on first glance. And Aphrodite's stories highlight important points about how to keep a life-mate, whether male or female, interested for the long haul.

APHRODITE AND THE SACRED MARRIAGE OF ZEUS AND HERA

In Book Five of Homer's Iliad, Zeus alludes to the realm of "marriage" as Aphrodite's sphere of expertise. He says to her:

"Not to you, my child, have been given the works of war;
you, rather, should attend to the charming works of marriage." (lines 428-30)

It was Aphrodite who helped to save Hera and Zeus's marriage, by loaning Hera her Magic Girdle. Zeus could not resist his Queen when she was so fetchingly clad in the Love Goddess's lingerie; although Zeus had strayed (115 times!), he returned to Hera from his philandering thanks to the

seductive girdle. Hera and Aphrodite's purpose is united in this story: to save the sacred cosmic marriage. This myth implies that Aphrodite is necessary to a marriage; Aphrodite's gifts helped Hera keep her marriage to the King of the Cosmos alive. Charming one's partner, even after years of marriage, is vital, according to this myth. Aphrodite and Hera went head-to-head on more political issues such as the beauty contest judged by Paris that became the beginning of the Trojan War (Grimal 192). But in terms of preserving the "hieros gamos," the goddesses were in accord.

APHRODITE'S MARRIAGE

But what of Aphrodite's own marriage? As you astutely point out, Dear Reader, she cheated on her lame husband Hephaestus by having a number of love affairs, the most famous ones with: Ares, the God of War; Hermes, the Trickster God of Communication and Commerce; Adonis, the younger hunk; and Anchises, the hottie in the hills. I think the message here is that as the Goddess of Love, she had to spread love around--to reach difficult arenas like war, via the realms of communication and business, the young and the old, with immortals and mortals alike. Although she was not faithful, her marriage was a source of power for Aphrodite. After all, she was married to a son of Zeus, and her husband loved her. Truly, madly, deeply.

Hephaestus was jealous of Ares. According to Homer's *Odyssey* [Book Eight], when Hephaestus contrived to catch Aphrodite cheating with Ares, he built a magic net which was hung as a trap over the Love Goddess's bed. Although Hephaestus was lame, a wound he received when either his mother or father threw him from Olympus (both versions of his lameness are in the *Iliad*), the smithy was ingenious and creative. His web caught the lovers in flagrante delicto; the gods in Olympus came to see the cheaters on display, all but Poseidon laughing at them (Friedrich 63). Some mythographers have interpreted this "lovers trap" scene as a symbol of shame brought on her husband by Aphrodite; in other words, that the expression of female sexuality beyond the boundaries of marriage will bring public embarrassment--ridicule due to cuckolding.

Aphrodite expert Paul Friedrich, however, sees the "lovers trap" scene as possibly illustrating Aphrodite's complete freedom from shame, in that she is allowed to go on her merry way afterwards with no change in status: a sign of her own high stature in Olympus and the power of love. In *The Meaning of Aphrodite*, Friedrich comments, too, that Book Eight of the *Odyssey* "raises serious questions about the symbolism of the relations between Aphrodite and Hephaestus" (64). Friedrich sees some significant positive elements in the A-H union. Friedrich asserts that far from lame, Hephaestus is one virile guy with a lot to offer a sexy gal: "his bellows as testicles, his hammer as a phallus, the gold he works as semen, and the fire of his great forge as the lust of sex" (65). This is not a guy who needed any sexual coaching; he sired lots of children, and not only with his wife. Aphrodite is an earth goddess who ascends to the sky; Hephaestus is a sky god who is cast below. Together, they move heaven and earth. She loves gold; he makes gold jewelry. Also, Aphrodite is dominant in their relationship, which doesn't sound like a bad deal. So Aphrodite's own marriage has strengths that are often overlooked.

LEARNING FROM THEIR STORIES. How to work with the stories of both goddesses in order to find a partner? Embrace Aphrodite's gifts. Finding a life-mate will involve charming a suitor with The Goddess of Love's enticing whispers and laughter. And once you've found your lover, don't forget about Aphrodite's alluring ways, because those charms will reinforce your marriage (with pleasure!) if practiced regularly. Oh, and don't cheat as much as Aphrodite did. That's a lesson from Hera: be faithful in order to keep your marriage "sacred."

Keywords for Hera include,

<p> alimony argumentative attentive appropriate aristocratic bicker bitch co-dependent competence clinging conflict devoted divorce settlement duty emotional blackmail fidelity frustration inheritance inter-dependence </p>	<p> intrusive jealous loyal manipulation mental imagery moral opinionated patronage pillar of society revenge shrew shrewd social obligation subjective tenacious touchy vengeful volcanic </p>
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INTELLECTUAL IDEA

A notion in our modern society which has a great dynamic effect on the domain of Hera is the concept of divorce. Easy divorce has not been an option, historically speaking. It is basically a new phenomenon. We are so casual in modern society that relationships are considered "disposable" or re-cyclable through serial relationships. With a 50% divorce rate for baby-boomers, and a 70% divorce rate for Gen-X, we have quickie "no-fault" do-it-yourself divorce.

Since the state of mind of the spouses is not identical coming into the marriage, there are usually differences in the adjustment to marriage. Differences in tempo, maturity, and in the degree of spiritual development are typically causes of difficulty, according to Jung. One partner is generally more psychologically complex than the other. This partner is frequently capable of much faster spiritual growth, but may be erratic.

The spouse who is grounded in a positive relationship to the parents can generally adapt better. They are not hindered by a deep-seated unconscious tie to the parents as divine,

god-like beings. They have successfully emancipated and therefore are more mature. They come into marriage as adults rather than "adult children."

A complex nature has many facets, and this personality may seek to realize many of them as symbolized by the impulsive promiscuity of Zeus. Versatility and spontaneity may have a certain charm, but it can mask an underlying impulsiveness.

Jung thought that a woman's spiritual life was contained in her relationship to her husband. Conversely, a man is contained emotionally in his wife, according to his notion. This may have been an accurate observation in his day of more traditional gender models.

However, the alternative lifestyle movement has produced many spiritually-oriented persons with commitments outside the Dyad. For example, a woman devotee of a spiritual Master obviously is not wholly contained spiritually by her husband. He does not contain her entire spiritual animus projection. She sees it in all her relations with significant others. Likewise, a man involved in intensive social action such as counseling, has a vigorous emotional life outside the home.

These divided loyalties are actually healthier than the all-or-nothing proposition of having no essential obligations or binding interests outside of the marriage. Nevertheless, the simpler spouse has the advantage of undividedness. The other spouse may envy this condition, feeling outside the marriage. This can become problematical, since it awakens longing for that particular bliss.

Maybe the spouse begins to fantasize it can be found in another lover. Hera has radar for such impulses, and her insecurities are painfully aroused. The specter of rivals begins to appear on the horizon. Driven inward by disappointment, the spouse may become desperate or violent, exploding in a spasm of rage and manipulative tactics. Forced to turn inward, the individual may be lucky enough to find an inner self-sufficiency which was latent potential all along.

As the possibilities of inner integration become more apparent to both spouses, they have the possibility of achieving the experience of an undivided self. This is a quantum leap in consciousness which is equivalent to a metamorphosis. This stage cannot come without confrontation of the anima/animus. The constant animosity depicted in the Zeus-Hera configuration has a telos or goal.

Every phase of life has its particular psychological goals as well as physical changes. One can always hope to be surprised in marriage by having one's own complexities answered by a corresponding diversity.

But progress may also be arrested at any stage of development with no further breakthroughs. Things get stuck; there is a "stale-mate." Consider the divorce rate. Individual capacities for adjustment vary. Remember, Hera remarries Zeus over and over again. You might think they are trying to get it right. Is the third time the charm?

There is pathology associated with this archetype including tragedy, yearning, jealousy, vindictiveness, and shrewishness. In the extreme, it may lead to homicide. Hera is shrewd.

This behavior, though inherent in her nature, is motivated by the attitude and behavior of her roaming spouse, Zeus.

It is purely reactionary, based on her compulsive, overwhelming need. He never seems to settle down, content with the domestic routines. When he persecutes her, through neglect or his affairs, she is distraught. She reacts so strongly that she even becomes self-defeating and self-destructive. In her negative phase, Hera is possessed by her animus reactions. In myth she gave reactionary birth to many monster children, conceived by herself in the lonely brooding of rejection.

She projected this rejection by Zeus into the form of her own son, Hephaistos. He is born of the primal Virgin-Mother. His birth as a separate entity means she lost the possibility of developing her own deeply introverted creative processes. If she could only have gotten a meaningful job. She winds up rejecting her son as Zeus rejected her, passing on her rejection and abandonment issues inter-generationally.

With Prometheus, another son, she gave birth to her rebellious opposition to the dominion of Zeus, meaning she expelled her ability to gain in ego-consciousness. Prometheus later has his own rebellious acts and conflicts with Zeus, carrying on the family tradition.

The combative Ares was the embodiment of her bloodthirsty rage, her egotism, and her jealousy. Ares' warlike nature is an instinct which has wreaked havoc on mankind. Finally, Hera goes really psychotic and expels the monster Typhon. As this reptilian Godzilla-like beast, she goes through a radical regression to the most primitive level, bursts all fetters and runs amok. With no limit to her destructive capabilities who knows what damage she might do.

At this point, the only hope is mitigation or litigation. Perhaps it is time for another purification and transformation through a renewal of the sacred aspect of marriage. In the Argive legends, Hera was known as "goddess of the yoke" and the meaning of yoga is "yoking" or "union." In this sense, marriage is a yoga, an arena for spiritual development. On the positive side, Hera was also Mother of the Charities (Faith, Hope, and Love), gaining thereby her affinity for charitable work.

Those identified too strongly with their persona as wife need to tap the deep resources of the animus. No one can be reduced to their role, such as merely wife, mother, breadwinner, etc. If a Hera-type has married a philander or liar they will become frustrated and embittered. Even so, guilt or duty or other feelings may prevent them leaving a bad marriage.

She represses her natural response. She may sublimate her rage in manual or mental work, rather than allowing herself to truly feel the energy and transmute it. If abandoned, she may have trouble believing that the loss is permanent. She believes in the fantasy of his return and eventual reconciliation. This denial prevents grieving and blocks her process of recovery.

The alchemical notion of "the chymical wedding" returns marriage to its spiritual side as a participating factor in personal transformation. Karen-Claire Voss Uses imagery from the *Rosarium Philosophorum* to illustrate this. Both the texts and the iconography of the

alchemical tradition of the sixteenth and seventeenth centuries are filled with allusions to 'the chymical marriage,' and some of the most beautiful and compelling images in the texts depict the conjunction of opposites as a royal marriage. These descriptions and images occur with sufficient frequency to warrant comparison with the hierosgamos (sacred marriage), as understood in the discipline of history of religions. We encounter the idea of the hierosgamos even before we embark on a hermeneutical discussion of the images that the work contains in the History of Religions.

The term hierosgamos is used generally to refer to the union between two divinities, or between a human being and a god or goddess, or between two human beings (under certain special conditions); more particularly, it is used to refer to the ritualized, public sexual union between the king and a hierodule ('sacred prostitute') in ancient Mesopotamia. This union was accompanied by the belief that the human partners became divine by virtue of their participation in it. It was thought, for example, that the priestess who took part in this ritual became the goddess Inanna in the same way as ordinary bread and wine are thought to become the body and blood of Jesus Christ in the Roman Catholic celebration of the Eucharist. Both ritual forms entail regeneration and transformation; in Mesopotamia, the hierosgamos was thought to insure the well-being of the king, the prosperity of the people, and the continued fertility of the land.

The belief that human beings could participate in the ontological condition of divinity through sexual union, through the body, is exceedingly ancient, but the hierosgamos is not merely an important element in an archaic religious tradition. It is also exceedingly persistent. And, in my view, its persistence indicates more than a merely superficial connection between its manifestations in the ancient Near East and in the West; it has become associated with a spectrum of symbolic meanings so rich and compelling that they continue to reassert themselves over and over again. Although the hierosgamos did not find its way into the official teachings of Christianity, for example, it is present nonetheless in the symbolism of Mary as the Bride of Christ.

The major difference between the significance of the hierosgamos in the ancient Near East and the Christian West is that its expression in the former context was bound up with an explicit, embodied praxis that necessitated ritual sexual union. This gives rise to certain hermeneutical difficulties. Scholars of religion sometimes deny or ignore the presence of the hierosgamos idea, or pronounce its use as a conceptual category invalid. Even those who do recognize its presence may yield to the prevailing wisdom that encourages the substitution of a part for the whole, and thus interpret the hierosgamos according to an allegedly higher, spiritualized ideal, having nothing to do with the body. Analogous interpretations are offered for the hierosgamos theme in alchemical texts. Yet, many of the alchemists appear to have undergone a complex experience involving mutual reciprocity between the events in the laboratory and within themselves of a kind that harkens back to, and carries forward, the imprint of a religious tradition that combined physical and spiritual levels of transformation.

A core of meanings associated with the hierosgamos that have persisted cross-culturally. If anything, the symbolism became enriched by the addition of Christian doctrines, especially that of the Incarnation, which signified the union of human and divine. Many alchemical texts like the Rosarium insist on the interrelatedness of body and spirit. In seeking the

'conjunction of opposites' the alchemists were attempting to overturn the conventional conceptual dichotomization between spirit and body, and to offer in its place models that reflected their intuitions of ontological wholeness. Therefore, when interpreting the hierosgamos theme in the context of the alchemical tradition we should keep in mind the fact that it is generally meant to include the body; it signifies not only idealiter but also realiter. An adequate hermeneutics of alchemical iconography can do justice to the multivalence of the hierosgamos images in texts like the *Rosarium* only by seeking to encompass the totality of their symbolic meanings.

The *Rosarium Philosophorum* contains twenty-one images, fifteen exhibit the hierosgamos in more or less explicit form; three others contain it implicitly. Figure 1 shows a fountain fitted with three spigots. The waters are the key to unlocking the meaning of this image, for the text explains that the waters flowing from each are really a single water --'of which and with which our magistry is effected.' The three waters evoke a hierogamy described in the *Enuma Elish*?, a Mesopotamian creation myth from around 1900 b.c.e., which relates how the primordial waters of Tiamat, 'she who bore them all,' and Apsu, 'their begetter . . . commingle as a single body,' and thus become the sole matrix from which everything emerges. The verse accompanying the figure heightens the correspondence between the alchemical fountain and the hierogamy that produced all life: 'We (waters) are the metal's first nature and only source; the highest tincture of the Art is made through us.'

In Figure 2 we see a king and queen dressed in elaborate robes. Each holds a stalk ending in two flowers. He stands upon the sun, she on the crescent moon. Although their separateness is symbolically emphasized, they clasp hands as if to prefigure the 'chymical marriage.' A dove -- at once a mediating symbol as well as a further link with the hierosgamos, since it was associated both with Eros and with the powerful female divinities of the ancient Near East --is shown hovering above them, holding its own stalk which perfectly intersects the cross formed by those held by the king and queen. In Figure 3 the pair is naked; but, still wearing separate crowns, they proffer to one another a flower on a long stalk. The banner over the king's head reads: '*O Luna, let me be thy husband*'; the one over the queen's reads: '*O Sol, I must submit to thee.*' Once more, the dove appears between them, a flower in its beak.

In Figure 5, we see the king and queen in sexual embrace. Figures 6-9 show the king and queen in hermaphroditic form, indicating successively deepening levels of conjunction, and depict them lying in a sepulcher. Their bodies are joined; they have two heads, but now wear a single crown. Figure 11 is explicitly sexual. The king and queen, each winged, wear two crowns, and are submerged in water. Their limbs are entwined; her hand grasps his phallus; his left hand fondles the nipple of her breast; his right is under her neck, supporting her. Figure 17 depicts the product of the union between the alchemical opposites in the form of the Hermetic androgyne. This offspring is not simply the end result of the marriage of opposites. Figure 18 shows the lion eating the sun. It is itself an implicit hierogamy because it is not fully differentiated from its parents, and continues to participate in its hierogamic beginnings.

Figure 19 provides an excellent example of the occasional coalescence of alchemical symbols and Christian symbols. Mary is in the center, flanked by the Father and the Son who are about to crown her. The Holy Spirit--in the form of a dove--hovers above. In the

background appear the words *Tria* and *Unum*. This image clearly contains a rich variety of hierogamic themes. First, there is the symbolic similarity between the three waters of the alchemical foundation we saw in Figure 1 and the Trinity. Second, the Incarnation of God the Son was made possible by a hierogamy between Mary and the third person of the Trinity. Third, the Incarnation of the Son entails an ontological condition of simultaneous humanity and divinity--a profound manifestation of hierogamy.

Like the marriage between the alchemical opposites, all these unions require mediation. In the alchemical marriage, this function is often performed by Mercurius, whom Jung calls a 'mediating symbol par excellence'; in the *Rosarium*, however, we have already seen the dove in the role of mediator. In this figure we see it in that role too, poised above the crown that the Father and Son are about to place on Mary's head; it is now associated with the third person of the Trinity. The fact that the dove was a symbolic attribute of the female divinities of the ancient near east underscores the conclusion that Figure 19 is also a hierogamic image, albeit in Christianized form.

Figure 20, the last image in the series, depicts the risen Christ. In his left hand, he holds a banner marked with a cross; his right gestures toward the now empty sepulchre. That sepulchre unmistakably indicates that the completed alchemical process has involved the transformation, not the transcendence, of the body. For if the alchemical work necessitated the transcendence of the body, one would not expect to find an empty tomb, but a tomb filled with the putrefying remains of the king and queen. Instead, we see the risen Christ, the embodiment of the hierogamic union between human and divine. In the view of the alchemist who wrote the *Rosarium Philosophorum*, the Christian doctrine of the resurrection of the body signified, not the suppression, or even the transcendence, of the physical body, but its glorification and perfection.

It is not surprising that the author of the *Rosarium Philosophorum* chose images of the hierogamos to help convey something of the exquisitely subtle reciprocity invoked in the alchemical coniunctio. The hierogamos images of alchemy are profoundly eloquent expressions of the experience of the true adepts as they moved through the later stages of the work. For those alchemists, all the elements of ordinary experience were sacralized. The Philosopher's Stone could be found everywhere; it was 'walked on, children play with it'; it is familiar to all (people) both young and old, is found in the country, in the village, in the town.

Perhaps we are still capable of learning from the alchemists that what transforms common substance, that which is familiar to all, is no more – and no less – than a deeper apprehension of the significance of the Hermetic motto: 'What is above is just as what is below.' This motto, so often quoted and equally often misunderstood, requires that we understand the radical implications of a 'whole from which nothing is excluded.' (Voss <http://www.trinity.edu/mgarriso/Myth/MythSyllabus.html#top>).

Further reading concerning Hera includes the following:

ZEUS AND HERA, Karl Kerényi
"Hera: Bound and Unbound," Murray Stein in **SPRING JOURNAL**
THE MEANING OF APHRODITE, Paul Friedrich

GODDESSES IN EVERY WOMAN, Jean Shinoda Bolen
THE GODDESS, Christine Downing
MARRIAGE: DEAD OR ALIVE, Adolph Guggenbuhl-Craig, Spring Pub.
"Marriage as a Psychological Relationship," C.G. Jung (CW)
THE GLORY OF HERA: GREEK MYTHOLOGY & THE GREEK FAMILY, Philip Slater
SMART WOMEN, FOOLISH CHOICES, Cornell Cowan & Melvyn Kinder
JEALOUSY, Nancy Friday
ON THE WAY TO THE WEDDING, Linda Leonard, 1986
SUPERMARRIAGE: OVERCOMING THE PREDICTABLE CRISES OF MARRIED LIFE
"Individuation through Marriage," Verda Heisler, PSYCHOLOGICAL PERSPECTIVES, Vol. 1, No. 2, 1970
THE BED TRICK: Sex, Myth, and Masquerade, Wendy Doniger

SPIRITUAL MYTH

For Hera marriage is a spiritual event which is only the beginning of her lifelong goal. She gets married in church or the Temple, not in Reno or by the Justice of the Peace. It is consecration, dedication, and consummation -- a eucharistic act. The main spiritual content of Hera revolves around the hieros gamos, or sacred marriage. On a personal level this means the reuniting of spirit, soul, and body. It indicates a full knowledge of both the heights (Zeus) and depths (Hera) of one's character. When the hieros gamos is consummated in our daily lives, it means that we have learned to apply our insights in practice.

When Jung speaks about the royal marriage, he tells us that the queen symbolizes the body, the king stands for the spirit, and the soul unites the two. Therefore, our psyche is a half bodily and half spiritual substance. When king and queen (animus/anima) are united, they form a magical hermaphroditic being which is a union of opposite energies. We need to be related to another individual, according to Jung, to experience the full depth of our own psyche.

From an internal perspective, spiritual marriage is an inner experience which is not projected onto another living individual. In the royal marriage of the soul with the Self, the projections of anima and animus have been returned to their proper level in the unconscious. We do not make our mate carry an essentially religious function for us anymore. The King and Queen are united, or conjoined, synthesizing the opposites. But this cannot happen until one masters the problem of unconscious desirousness. When the opposites to be united are the masculine consciousness (of our day world) and the feminine unconscious (the night world), this royal marriage is a transcendent symbol of the Self, and embodies the psychic totality of personal wholeness.

These statements need not be confused with erroneous notions concerning the so-called "soul-mate." Each individual has a complete soul, and is a divine spark. But when we choose to cast our lot with a life-mate there is a synergetic effect which transcends the qualities of the individuals involved, bringing a portion of the divine into manifestation. It is not that a long-lost mate is rediscovered after separation on a higher plane. Rather, that

two compatible souls commit themselves to furthering the development of loving compassion in one another. From the archetypal perspective, the whole object of marriage is to reach God. Thus marriage is seen as a creative process of love where two souls care for one another in a reciprocal manner, furthering mutual spiritual aims.

Therefore, the Royal Marriage of Zeus and Hera means self-actualization within the boundaries provided by the institution of marriage. Our partners are no longer required to live our own un-lived potential. Through withdrawal of projection onto the partner, we actualize our own potential. Thus we find meaning in "the battle of the sexes." We discover our own madness, as well as our own unique spirit. This creates an increased sense of interiority which might be viewed as a thalamus or bridal chamber, a place where opposites merge.

According to Joseph Campbell, "Myth helps you to put your mind in touch with this experience of being alive. It tells you what the experience is. Marriage, for example. What is marriage? The myth tells you what it is. It's the reunion of the separated duad. Originally you were one. You are now two in the world, but the recognition of the spiritual identity is what marriage is. . . . When people get married because they think it's a long-time love affair, they'll be divorced very soon, because all love affairs end in disappointment. But marriage is recognition of a spiritual identity. . . . By marrying the right person, we reconstruct the image of the incarnate God, and that's what marriage is. The internal union of hieros gamos helps ensure the external reunion in a primary relationship. By discovering splits within myself and healing them, I prepare for a spiritual identity. Otherwise my partner ends up carrying the burden of Eve, Helena, Mary or Sophia to compensate for my unresolved anima issues."

How does one choose the right person? Your heart tells you. It ought to. Your inner being. That's the mystery. You recognize your other self? Well, I don't know, but there's a flash that comes, and something in you knows that this is the one. The Intuitive Self knows when the spiritual partner arrives. By attending to the moment, I will have the perceptiveness to recognize the flash when it comes. If I am not listening, the flash will come and go without my noticing it. Why is it that marriage is so precarious in our modern society? Because it's not regarded as a marriage. I would say that if the marriage isn't a first priority in your life, you're not married. The marriage means the two that are one, the two become one flesh. If the marriage lasts long enough, and if you are acquiescing constantly to it instead of to individual personal whim, you come to realize that that is true - the two really are one. Primarily spiritually. The biological is the distraction which may lead you to the wrong identification.

According to Campbell, the necessary function of marriage, perpetuating ourselves in children, is not the primary one; that's really just the elementary aspect of marriage. There are two completely different stages of marriage. First is the youthful marriage following the wonderful impulse that nature has given us in the interplay of the sexes biologically in order to produce children. But there comes a time when the child graduates from the family and the couple is left.

Marriage is a relationship. When you make the sacrifice in marriage, you're sacrificing not to each other but to unity in a relationship. The Chinese image of the *Tao*, with the dark and light interacting - that's the relationship of yang and yin, male and female, which is what a marriage is. And that's what you have become when you have married. You're no

longer this one alone; your identity is in a relationship. Marriage is not a simple love affair, it's an ordeal. and the ordeal is the sacrifice of ego to a relationship in which two have become one. It is, in a sense, doing one's own thing, but the one isn't just you, it's the two together as one. And that's a purely mythological image signifying the sacrifice of the visible entity for a transcendent good. This is something that becomes beautifully realized in the second stage of marriage, what I call the alchemical stage, of the two experiencing that they are one. . .

It's primarily a spiritual exercise, and the society is supposed to help us have the realization. Man should not be in the service of society, society should be in the service of man. We presume we make a commitment for better or for worse. That's the remnant of a ritual. And the ritual has lost its force. The ritual that once conveyed an inner reality is now merely form. And that's true in the rituals of society and in the personal rituals of marriage and religion. (Campbell).

The spiritual value of *Gender Reunion* and the "fertility bridegroom" has been sponsored by Chris King's Eden Diversity Project at <http://www.dhushara.com/> and his listserve Wedweave. There are discussions around issues such as Sacred Marriage: Relationship as Immortality. All our cultural experience and individual conscious existence depends on the fabric of life, the germ line, and this comes not from male dominion, but from the mutual sexual relationship between the two genders. In this relationship, the female stands central as the sole bearer of cytoplasmic inheritance and the principal investor in time and resources. However the male likewise contributes genetically in full and pivotal share. Immortality is thus not the domain of one gender but of the relationship between woman and man. Cultures which fail to respect these socio-biological realities lead to gender oppression, especially the repression of women.

Attunement with the immortal continuity of life likewise comes from the relationship between woman and man, not from one gender alone. Each sex is sterile on its own and mortal as individuals. The family relationship is an embodiment of this ongoing immortal web of life. Relationship is conceived spiritually in the form of 'holy matrimony', the harmony that is produced from the creative relationship between woman and man. It is thus the sacred marriage in which we find God and Gaia, the Feminine face of deity, in divine union.

The healing of the epoch of male dominion requires mankind to atone for the errors of his ways and come to terms of learning, healing and new wisdom, but true liberation arises from reconciliation, not dominion in any form, male or female. The embodiment of reconciliation is forgiveness and the celebration of it is the sacred marriage. This marriage is by definition one in true freedom for each gender. That is its very sacredness - its complete freedom, combined with the devoted commitment to one another the marriage expresses. This is a paradox of trust. It does not imply any form of possession. Solomon did not possess the Queen neither she him.

The Bridegroom archetype is in a sense the heroic journey of every shaman on the vision quest, every budding troubadour, and every knight of courtly love, from Dumuzi through Adonis to Lancelot.

Inanna sang: "Make your milk sweet and thick, my bridegroom.
My shepherd, I will drink your fresh milk.
Wild bull, Dumuzi, make your milk sweet and thick.
I will drink your fresh milk...."

The Jewish messiah is also a fully-human figure, traditionally a heroic priest or king who performs genuine social redemption of his people - inspiring long-term future goodness. David, Solomon and Cyrus represent different forms of 'anointed' or messiah, with Solomon figuring very strongly as the Bridegroom in his renowned sacred marriage with the Queen of Sheba, which is the subject of the Song of Songs, perhaps the most fertile passage ever written in both the mountains of sexual spice and the image of the beloved as the progenitor of fertility: "Thy teeth are as a flock of sheep which go up from the washing, whereof every one beareth twins and there is not one barren one among them"

I rose up to open to my beloved and my hands dropped with myrrh,
and my fingers with sweet-smelling myrrh, upon the handles of the lock.
I opened to my beloved; but my beloved had withdrawn himself and was gone:
my soul failed when he spake : I sought him, but I could not find him;
I called him, but he gave me no answer

Later Jesus adopted the Bridegroom archetype in the prophecy of Isaiah 61 in pronouncing his manifestation at the Nazareth synagogue, for which he was nearly thrown off a cliff.

He hath clothed me with the garments of salvation
as a bridegroom decketh himself with ornaments
and as a bride adorneth herself with her jewels
For as the earth bringeth forth her bud,
and as the garden causeth the things
that are sewn in it to spring forth
so the Lord God will cause righteousness
and praise to spring forth before all the nations.

This set the tradition on to a new extreme Zoroastrian form of cosmic renovator, Jesus promising the Kingdom as the messiah of history redeeming the Earth from the sins of woman, stemming from Eve and the Fall - the son of man, the archetype of Adam:

And he said unto them,
Can ye make the children of the bridechamber fast,
while the bridegroom is with them?
But the days will come,
when the bridegroom shall be taken away from them,
and then shall they fast in those days.

This mission culminated in the Crucifixion, and the exaltation of Magdalen on the third day in the very tradition of Inanna repeating the very words of the Song of Songs calling for the lost Adonis:

'Woman, why weepest thou?' She saith unto them,
'Because they have taken away my Lord,
and I know not where they have laid him' ...
Jesus saith unto her, Mary.
She turned herself, and saith unto him, Rabboni;
which is to say, Master.
Jesus saith unto her, 'Touch me not' ... ;

The rapid elevation of Jesus to cosmic Christ was followed by the suppression of the gnostics and the repression of women all round. Good cause for suspicion of Jesus and his

motives, especially when certain gnostic texts had him say "I have come to destroy the works of woman", namely Eve.

However the fertility Bridegroom is a very different 'kettle of fish' from the ichthys of Christianity. Where Jesus was the bridegroom of the church on the marriage bed of the Cross, the fertility Bridegroom is the bridegroom of the immortal feminine face, embodied in Gaia - the living earth. The fertility Bridegroom starts out by breaking all the curses ever made against women:

I unpronounce original sin.

I unpronounce dominion over nature.

I unpronounce the Anathema maranatha.

I unpronounce the death curse on the witch.

I unpronounce stoning for adultery

or any other violent punishment.

I apologise to all women for the sins of man.

and promises to stand beside women and men of like spirit to safeguard the future of life:

I vouchsafe to the immortal Feminine the troth of sacred marriage.

I promise to stand by the Bride whatever the cost

to culminate the patriarchal epoch for the future of life on earth.

This is literally turning the tables on the whole paradigm, giving not only women but men of like spirit, liberation from the binds of orthodoxy and the heritage of Armageddon. Women as a gender alone struggle to achieve an equality which will only be achieved slowly world-wide because of ingrained patriarchal supremacy in diverse cultures spanning all the continents. By the time eventual social change restores the freedom of women world-wide, nature will have been so damaged that our heritage of biodiversity will not be with us for the future of humanity and the unfolding of life. By forming a relationship now in which female and male meet in reconciliation, a broad consensus for feminine sustainability can be achieved in a way which would be impossible otherwise. It is possible to combine vehement and oceanic support for women's liberation and empowerment worldwide with constructive gender engagement.

Although the fertility principle and the sacred marriage rite extols sexual union, life, birth and spring as symbols of life burgeoning forth, rather than the cult of death, fertility in this sense does not imply rampant sexual reproduction, but furthering the ongoing continuity of life into the unfolding future - what furthers the sustainable diversity of life. Fertility thus comes with natural moderation of population. A key to this is women having freedom of reproductive choice. The key role of the fertility Bridegroom is to act as a healing catalyst, in cooperation with women and men of like spirit, to save the world's living heritage for the unfolding future, by liberating the paradigm into the epoch of the Tree. The key to the whole existential dilemma we face is saving as much of the diversity of life as possible now, so that those that follow us will have their rightful share of the diversity of life instead of a veritable genetic desert of our own making, caused by the selfishness and greed of what is almost a single generation.

King's group invites all women to join with with men of like spirit in forming a feminine Wisdom democracy to conceive apocalypsia the bridal unveiling and to fulfill the unfolding of the epoch of the Tree of Life, the liberation from prison of those that are bound and the Sakina of the dove of peace.

I covenant to abide by the ethics and conception of this democracy in apocalypsia in respect of the principle that all of us in our vision and divinity are incarnation equals - living partners moving on the face of the deep. This is to end the tradition of the 'lord messiah' in being the humble follower of democracia - collective wisdom through peer review.

This division of sexuality and spirituality is rather recent in the history of religious experience. In most pagan societies, sexuality is seen as an important aspect of uniting the spiritual with the physical and with the worship of gods and goddesses. In many ancient cities, sacred prostitutes "served" at the temples in order to be the mediatrix between the gods and humans. One writer notes,

Now certainly I am not suggesting that true sexuality and spirituality should be untied in this way.

After all, this was what the Apostle Paul was trying to straighten out in the Corinthian church

because some of the believers were apparently still having intercourse with sacred prostitutes (I Cor.

6:15-20). In order to correct this perversion, he encourages the cultivation of a sexual relationship in marriage as a prevention from this abundant "sacred sex." Apparently, even the married couples had become abstinent as an overreaction to the Corinthian extremes and had thrown the sexual relationship totally out of marriage. To this problem, Paul tells them to "stop depriving themselves," and to recultivate the sexual area of their marriage lest they be severely tempted by the culture (or Satan). In similar fashion the Church has been reacting and overreacting on the relation of sexuality to spirituality ever since.

CULTURAL COUNTERPARTS

**Juno (Roman)
Lakshmi (Hindu)
Parvati (Hindu)**

CONTEMPORARY EXAMPLE

In addition to now-passed Princess Diana, there are other famous Hera women whose husbands are wealthy and powerful enough to challenge the limits of their marriage. Ivanna Trump is another recent example; Jackie Onassis.

Hera has never been psychologically far from our thoughts. She has appeared in the political arena as the thorny problem of the ERA amendment. Increasing the political rights of women and ensuring equal pay for equal work, this Equal Rights Amendment has not been able to prevail over the socially dominant patriarchy.

It is interesting that Hera was known in the past as Era. Thus, she is the underlying archetypal dominant of the ERA. All those wives and mothers proclaiming their equality in the paternal society are devotees of Hera. Working women who have experienced severe discrimination in the job market are now "venting their spleens."

DIALOGUE WITH HERA

Through dialoguing with Hera, we can learn about our unconscious attitudes toward marriage or bonding with a spouse. She can show us how we subconsciously are feeling toward our spouse or the institution of marriage at any given time.

In active imagination she may appear as jealous, bitchy, vindictive, frustrated or argumentative, depending on how the primary relationship is going. At least, when you agree to dialogue with her, she gets Her voice, at last. She might appear as the elegant bride, or celestial queen. If you have lost a loved one for whom you still grieve, she may appear as Hera Chera, who has lost her mate.

She can also inform us about our individuation process when she is seen as the Soul-as-Queen and her husband Zeus-the-King is Spirit. Watch your dreams for images of weddings and nuptial festivities. It is better for you to be a participating onlooker at these events, rather than the bride or groom.

Imagining oneself as the King or Queen without the proper protection from archetypal identification is probably grandiose fantasy, rather than true transformative process work. This would mean your ego or personality is too strongly identified with these powerful archetypes, and this means being in a state of possession or compulsive dominance of your life by the archetype. As an observer you can appreciate the Royal Marriage taking place in your psyche with better results in daily life.

If you are dating, and are really looking for a potential spouse, or if you are engaged and fantasize continually about your impending marriage, you can bet Hera is at work in you.

For Hera, the accent is on the marriage itself, where a goddess such as Demeter primarily seeks a father for her children.

If you are single and considering marriage, ask Hera in dialogue just what type of spouse will fulfill her requirements for a multidimensional relationship. But remember, with Hera there will always be something that is not quite right, some fatal flaw to spoil the nuptial bliss. Remember Hera was the most jealous woman in Greek mythology.

Ask Hera about her feelings concerning all the aspects of your relationship which include physical, emotional, intellectual and spiritual bonding. If your physical relationship is off you might want her to summon help from Aphrodite; if your spouse won't talk to you about meaningful issues of the day, perhaps Athena could help.

Gods and goddesses do not exist in vacuums or isolation. Once you are familiar with the basic cast of players, your inner dramas can have dynamic interaction of several archetypes. They can dialogue with one another, as well as you. But, be careful--don't amass too much power in one place at once or you will be overwhelmed and unable to integrate the results of the exercise.

If you have ever been divorced, dialogue with Hera concerning this event. She can inform you about subconscious currents which brought the downfall of the marriage. You may have known the conscious reasons for your split, but there may be many unresolved issues remaining to explore with her help.

HERA IN YOUR LIFE

- 1. Despite current circumstances, at this point in your life, which do you prefer most -- to be married or single? If you are single, do you find yourself continually "sizing up" eligible members of the opposite sex as potential mates?**
- 2. When you date(d) do you see several others simultaneously (Aphrodite or Don Juan) or do you tend to focus on one lover at a time (serial monogamy)?**
- 3. If you are married now, how do you feel consciously about your relationship on the physical, emotional, intellectual and spiritual levels? Be honest with yourself. Are you still as compatible as when you wed? Are your growth rates similar or is one partner overly dependent or immature?**
- 4. In what ways does your commitment to relationship limit your sense of personal freedom (Zeus); how does it expand your potentials?**
- 5. In Hera's cult, her marriage was periodically renewed. Can you do this within the context of one primary relationship for a lifetime, or have you been remarried instead? Name 3 ways to keep the freshness of your marriage alive.**
- 6. What makes the Hera-in-you jealous, vindictive, or explosive? Do you repress her sharp tongue, or vent your wrath? If so how do you deal with those feelings or resolve the situation?**

7. Divorce is also part of the Hera syndrome -- a sort of metaphorical ritual purification when an outworn relationship has turned poisonous. Briefly describe your emotional, intellectual and spiritual attitudes toward divorce in general.

8. Has the projection of your anima or animus ever fooled you into thinking you had met your soul-mate? Do you have romanticized notions about the soulmate? Each soul has the potential for wholeness within itself. So partners may be well-suited but not necessarily "fated" for one another. This sense of destiny comes from projecting our soul onto another, which sometimes results in unrequited love.

9. Are other gods intruding on your human marriage so that Hera feels shortchanged in time or depth of relationship? For example, Aphrodite trying to steal one's spouse, or Athena making one's spouse workaholic. Hephaistos might make a spouse seem dull and uninteresting, Demeter diverts most of the attention toward the children, while Dionysus upsets the home with crises produced by intoxication, and Artemis prefers to be independent and live in solitude.

10. Have you ever had to deal with an adulterous spouse? How did you feel and react? Did it destroy your relationship, ultimately? How did you deal with rejection?

11. Can you remember any dreams of weddings from any period of your life? If so, what elements within yourself do you think were uniting? Consider the outer circumstances at the time. You may dream of a positive experience of being the wedding partner of a sacred figure. This is an inner experience of wholeness if there is a mysterious and divine emotional effect on you or you feel erotic bliss and union with the partner when it embraces you.

This is a dream of the Sacred Marriage, which may foretell its actualization in the future, or just show its potential. It is a mystical reunion, which brings peace, yet is electrifying. This is a dream of Hera the Perfected or Fulfilled One.

12. How do you feel about women's rights proposals such as the now-defunct Equal Rights Amendment (E.R.A.)?

13. Who are you looking to for assistance, direction or learning? What law or rule do you feel you have transgressed? And who would hold you accountable? What traditions are you upholding or rebelling against? What are you learning?

MYTHEME SYNOPSIS

I. Hieros Gamos and the Succession Myth

A. Hieros Gamos: "sacred marriage"

1. usually sky god and earth goddess
2. aetiology of vegetation
 - a. storm as sexual intercourse
 - b. rain as semen

B. Hieros Gamos I: Uranus and Gaia

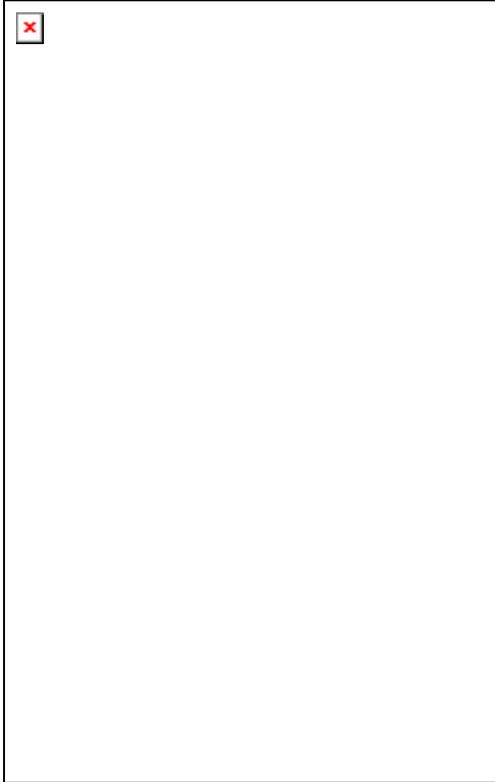
1. Uranus the first "evil":
 - a. tries to stop the natural progression or order of things
 - b. motivation: jealousy of children
2. Gaia uses craft to retaliate

- a. wily Cronus responds to the challenge
- b. from the castration (separation) comes:
 - 1) Erinyes (Furies): avenging spirits
 - 2) Giants
 - 3) Aphrodite; represents sexual desire
- c. Uranus and Gaia are retired; become advisors (mainly)
- 3. Progeny of Gaia and Pontus
 - a. mostly monsters--e.g., Harpies, Sphinx, Gorgons, Cerberus
 - b. mostly combinations of human and animal parts
 - c. Nereus, Old Man of the Sea: had prophetic powers
- C. Hieros Gamos II: Cronus and Rhea
 - 1. Cronus is the first king; Golden Age for humankind
 - a. told he will be replaced, so suspicious and clever
 - b. swallows his 6 children, the "Olympians" to be
 - 2. Rhea advised by Gaea and Uranus: baby Zeus spirited away
 - a. raised on Crete: reflects history
 - b. Amalthea: goat-nurse
 - 3. Zeus comes of age
 - a. Metis ("Cleverness") gives Cronus an emetic
 - b. omphalos ("navel") stone
 - 4. Titanomachy (Clash of the Titans):
 - a. old gods vs. new gods;
 - b. brute physical force vs. mental and physical skill
 - c. Themis and Prometheus side with Zeus
 - d. Zeus releases Cyclopes and Hecatonchires; gets their help
 - e. 10 year stalemate broken; Titans relegated to Tartarus
 - 5. Typhoeus (Typhon): Zeus' greatest challenge (Typhonomachy)
 - a. dragon, son of Gaea and Tartarus
 - b. represents the life-destroying negative side of the female
 - 6. Zeus defeats Giants
 - a. "revenge children" of Gaia
 - b. pile mountains on top of each other
 - c. no wonder Zeus is a bit touchy.
- C. Zeus as king
 - 1. Zeus appointed king (unlike his father)
 - 2. delegates authority (unlike his father)
 - 3. takes Metis ("Cleverness") as his first consort
 - a. prophecy that he would be deposed by his son
 - b. cleverly swallows Metis (unlike his father);
 - c. she becomes subordinate to him; he becomes wise
 - 4. birth of Athena
 - a. Zeus the new creator (male)
 - b. creates from the head (mind)
 - c. she is forever loyal to him; no threat
 - 5. defeat of Giants (Gigantonomachy)
 - a. born from Uranus' genitals
 - b. wild, primordial, natural forces
 - c. order over nature

*Eros and Psyche; their love knows no measure.
Through trials, love leads them to immortal Pleasure.*

CHAPTER VI: THE LOVERS

EROS AND PSYCHE



The story of Eros and Psyche has been passed down through the work of a Greek initiate in the Eleusinian (or Isis) Mysteries. In *THE GOLDEN ASS OF APULEIUS*, the tale of these divine lovers is inserted into the personal story of Apuleius. It is a tale of psychosexual transformation.

Eros and Psyche is a 12-part Mytheme:

- 1. Psyche--Wow, She's Gorgeous!**
- 2. The Wrath of Venus**
- 3. Eros Tumbles for Psyche**
- 4. Eros Conceals Himself**
- 5. Psyche Smells a Rat**
- 6. Psyche Takes a Peek**
- 7. Eros Abandons Psyche**
- 8. Psyche Is Punished**
- 9. Venus Imposes the Tasks**
- 10. The Impossible Task**

11. Eros Lends a Helping Hand

12. Psyche Joins the Immortals

The tale has great psychological value since it reveals the development of the initiate's relationship with his anima as a result of the initiatory process. Eros is a phallic god -- the erotic impulse -- who pricks and stings with his arrow of love. In the tale, Eros represents the reproductive passion which is transformed through its relationship with Psyche. The union of Eros with Psyche engenders bliss. Eros bonded with Psyche represents bonding of soul and mind. In the mytheme, Eros is cured from lust and cleaves to Psyche.

Elements of this tale have come down in fairytales such as *Cinderella* and *Beauty and the Beast*. In *The Uses of Enchantment* (1975), Freudian analyst Bruno Bettelheim interprets the "Cupid and Psyche" myth as a story about the development of mature consciousness, the difficulty of joining wisdom and sexuality, and the problem of sexual anxiety. He also sees some aspects of Oedipal love involved in this story, especially Aphrodite's possessive jealousy of her son, but overall, his interpretation is very optimistic about the psychological potential of human development as it is presented in the Eros and Psyche tale.

When Psyche breaks the taboo by using the lamp to see Eros in the darkness, Bettelheim understands this as an attempt to expand her consciousness before she is ready for it: The story warns that trying to reach for consciousness before one is mature enough for it or through short-cuts has far reaching consequences; consciousness cannot be gained in one fell swoop. In desiring mature consciousness, one puts one's life on the line, as Psyche does when she tries to kill herself in desperation. The incredible hardships Psyche has to endure suggest the difficulties we encounter when the highest psychic qualities (Psyche) are to be wedded to sexuality (Eros).

Bettelheim emphasizes the dangers involved in developing consciousness. Psyche's repeated decisions to kill herself in order to end her despair at the prospect of completing her seemingly impossible tasks symbolically express the depression which frequently accompanies psychological development. For Bettelheim, a primary aspect of this development is the integration of sexuality with the highest aspirations of consciousness. He insists that nothing less than a spiritual rebirth is required to bring together these seemingly opposite aspects of the human being.

The troubled relationship between Eros and Psyche symbolizes the difficulty involved in this integrative process, and Psyche's journey to the underworld dramatically portrays the powerful experience of rebirth which precedes and helps to bring about this hard-won integration. . . .To begin with, the prediction that Psyche will be carried off by a horrible snake gives visual expression to the inexperienced girl's formless sexual anxieties. The funeral procession which leads Psyche to her destiny suggests the death of maidenhood, a loss not easily accepted. The readiness with which Psyche permits herself to be persuaded to kill Eros, with whom she cohabits, indicates the strong negative feelings which a young girl may harbor against him who has robbed her of her virginity.

According to Bettelheim, the value of the animal-husband tales, including the Eros and Psyche story, is that they assure children that their fear of sex as something beastly is not unique to them and that sexual anxiety, which is often implanted by others, frequently

turns out to be unfounded. Stories about the animal-husband assure children that their fear of sex as something dangerous and beastly is by no means unique to them; many people have felt the same way. But as the story characters discover that despite such anxiety their sexual partner is not an ugly creature but a lovely person, so will the child. On a preconscious level these tales convey to the child that much of his anxiety is implanted in him by what he has been told; and that matters may be quite different when one experiences them directly, from the way one sees them from the outside.

So when Psyche discovers that her lover is not the monster she feared but a magnificent god, this reassures people on a subconscious level that sex is not beastly but potentially beautiful. In this reasoning Bettelheim goes a step beyond [J.] Schroeder and [Jacques] Barachilon, who more or less use the Eros and Psyche myth to illustrate the dynamics of projection as a girl's way of dealing with her sexual anxieties. Bettelheim stresses more than these other two commentators the role of society in generating sexual anxiety in children and the positive unconscious role which the Eros and Psyche myth and other animal-husband tales have in offsetting such anxiety.

Erich Neumann sees Psyche as originally bound to Eros in a paradise of uroboric unconsciousness, and when she sees Eros in the light, this original unconscious tie is dissolved. For Neumann this change represents a shift from the principle of fascinating attraction and the fertility of the species to a genuine love principle of personal development and encounter. For Neumann the link between individuation and love as encounter is one of the central psychological insights of the myth: "With Psyche, then, there appears a new love principle, in which the encounter between feminine and masculine is revealed as the basis of individuation" (*Amor and Psyche*, p. 90).

Individuation is accomplished through a conscious encounter with the unconscious, which is symbolized by contrasexual symbols: the male achieves individuation by confronting his unconscious, personified as a feminine anima and the female meets her unconscious personified by male figures. This process is usually understood intrapsychically, but it is generally influenced by encounters with persons of the opposite sex in the external world. In this view, a loving encounter is often the occasion for an intensification of the individuation process.

From this traditional Jungian perspective Eros can be seen as either Psyche's inner masculine side or as a figure who transcends (is outside of) her own mind—either as a person in the external world or as a god in a transcendent reality. In an accessible style and readable prose, Barbara Weir Huber explores the myth of Psyche, interweaving research from diverse disciplines such as current feminist and educational theories, mythology, literature, psychology, and cultural anthropology. She offers an original, critical reinterpretation of the myth, highlighting the way it overtly portrays female experience in a patriarchal context while covertly affirming all aspects of female life.

In *Transforming Psyche* Huber shows that the myth of Psyche and Eros can be interpreted to illuminate the experiences of twentieth-century women. In contrast to the portrayal of Psyche as indecisive and amorphous, Huber emphasizes those aspects of the tale that describe Psyche's connectedness - to her sisters, her own sexuality, her earth-bound experience and, ultimately, to the birthing of her child. Using the works of such writers as

Emily Carr, Margaret Laurence, Gertrude Stein, and Virginia Woolf, Huber demonstrates that feminist theory and women's autobiography mirror the insights uncovered in her retelling of the Psyche story, a feminist response to Neumann's powerful classic, *Amor and Psyche*.

According to Jean Shinoda-Bolin, *"In the Greek myth of Eros and Psyche, Psyche's story is about the growth of the soul that began with her decision to face the truth, and led her to being on her own, challenged to complete tasks that were initially beyond her ability to perform. In the myth, her unseen bridegroom would come to her in the dark of the night and be gone by morning. Metaphorically, she was in an unconscious relationship. Fearing that he could be a monster, Psyche followed her sister's advice, hid a lamp and a knife, and waited until he had fallen asleep. She needed the lamp to see him, and the knife to cut off his head if indeed he were a monster."*

"These two symbols, the lamp and the knife, are both necessary for a psyche--for a soul--to act decisively when we know the truth. The 'lamp' is a symbol of illumination, of consciousness, the means of seeing a situation clearly. The knife, like the sword, is a symbol of decisive action, of the capacity to cut through confusion. The lamp without the knife is not adequate; it is insight into the situation with the capacity to act upon this perception."

"Myths and symbols are in the language of the soul. A myth helps us to take a situation to heart and know what we must do: if it is to see the truth and act upon it, then the image of Psyche with her sword provides a magic perspective. A symbolic object can then be a talisman that helps us to do what we need to do. Like passing a literal torch, these are rituals that empower us by infusing an act with a deeper meaning. To think and act this way is magical, metaphoric thinking that can call forth the qualities we need from within ourselves and may also tap into sources of help that lie beyond us." (Jean Shinoda-Bolin).

Psyche is a mortal incarnation of Eros' mother, Venus or Aphrodite. Since she is mortal, she represents that part of Eros' anima which is closer to consciousness. Venus becomes jealous of Psyche because mortals begin worshipping her beauty, preferring her to an abstract Olympian goddess. Psyche's appearance in an account of the Eleusinian Mysteries points to the identification between Psyche and Isis, and Aphrodite and Isis. One might think that the goddess, then, fights against herself. In a sense, she does. She protests because of the narrowing of her potential into a finite mortal form.

If Psyche is Venus in diminutive form, Eros actually takes part in a variation on the theme of sacred marriage with his mother/daughter/sister. This repeats the old Egyptian transformative formula of I.A.O. (Isis-Apophis-Osiris), concerning the mystery of rebirth. Psyche is a form of Kore, the eternal maiden, the mother goddess in rejuvenated, human form. Therefore, the Eros and Psyche tale is a variation of the Demeter-Kore myth (see CHAPTER VIII). For the female initiate, this myth represents the deepest experience of the female "ms.teries" of the Self.

For the male initiate, it means a progressive integration of the anima which then leads to an experience of the Self. While he is still mother-complexed, all the forms of the goddess are compounded in the figure of the Great Mother. Without transformation he is her eternal lover who is always subject to fragmentation of his personality (i.e. death and rebirth). So,

the story of Eros and Psyche on various arcs concerns such important human areas as anima (for a man) and animus (for woman); it is also a paradigm of developing relationship, and bears a strong message regarding developmental tasks in the natural process of women's (or feminine) consciousness raising.

The action of the archetype of anima/animus means that we project our unconscious idea of the All-Woman or All-Man onto an individual in whom we see this ideal essence. No single person can be the carrier of all the divine attributes or qualities we project onto them. When they fail to live up to our unconscious expectations, the process of consciousness raising begins. The Venus function is a lens which can magnify or distort. The story of Eros and Psyche reveals a process of deep metamorphosis and renewal where all the values of the feeling function, emotional life, and moral standards gradually gain new significance and purpose.

There is a "change of heart." Eros moves from sexual objectification toward soulful love; Psyche from projection of her masculine qualities toward empowerment. Emotionally, they act out the dynamic of the puer/puella immature relationship in the meantime. This naturally leads toward active introspection on the mental level, which results in spiritual consciousness raising--a renewed sense of empathy and compassion.

This myth resonates with the Tarot trump, THE LOVERS. The Crowley deck shows an exalted version of the sacred marriage. But more mundane decks generally show a man flanked on either side by two women competing for his attention. He is in an unconscious relationship with both the more maternal, motherly type and the young sensual counterpart who probably represents an immature anima or soul image.

These female figures are sometimes polarized as light and dark anima figures. If we view the young man as the immature ego, this card can also represent a woman with a split between the physical and spiritual aspects of love. Sometimes this dynamic becomes concretized, "acted out," in life through a love triangle.

The ego must bear responsibility for any action it takes in response to the conflicting figures. In the psychology of both men and women, male figures usually represent consciousness, intellectual attainment, and spirit; female figures symbolize aspects of the body, emotions, and soul. The polarity is between sexual passions, secret feelings, and spiritual strivings which exert a definite hold on the ego.

Each is compelling in a magical, magnetic way. The ego cannot detach itself from either of them in outer reality since each belongs to its inner reality. If the ego stands its ground, and endures the tension of conflicting desires, it can become free of the spell of unconscious projection in either direction. We must come to terms with both instinctual draws to gain full stature. This is a step toward individuation. Otherwise we remain in thrall to our feminine, instinctual side which conditions our emotions. We live out a frozen, trance-like state of mystified love, rather than mature, soulful love.

The challenge is to connect our spiritual and emotional life, through passionate involvement in all of life. Then we find ourselves in a new relationship with others and in harmony with ourselves, facing each individual conflict and suffering through it to its

resolution or transcendence. By facing our fears and pains -- becoming conscious of our conflicts -- we can find peace. New realizations appear in their embryonic stage as conflicts which offer us choices in life. These decision points become either our life's path or roads-not-taken.

Eros, like Fate, is symbolic of the fatal power of attraction which brings opposites together. He is the incarnating life principle, which ushers in the irrational, passionate intensity which makes transformation possible. He "turns up the heat" on the psychic process; he is that spiritual or divine fire which can unite with instinct.

PHYSICAL FORM

In the creation myths of many cultures, Primordial Wholeness divided into two polarizing aspects. Together these are known as the "syzygy" and indicate an archetypal coupling where one aspect is never separated from the other. In the "impersonal" aspect of lunar (or Venusian) experience, the Great Goddess is never separated from her masculine Son-Lover. They are locked in an eternal fascination for one another. One implies the other for wholeness. They exemplify the soul-spirit relationship on a naive level of psychological development.

On the "personal" level this tandem is expressed as anima/animus. They are the contrasexual component within us all. In other words, these soul figures embody our latent capacities for expression and realization of the traits normally associated with the opposite sex. Thus, the animus leads a woman to the outer world and promotes her ability in focused, rational thinking; conversely, the anima guides a man (or our ego) through the inner worlds of relationship. Since anima and animus build a bridge between the conscious and unconscious perspectives, they function as mediators between the known and the "unknown."

This is the level of psychological "complex" where there is a blending of archetypal realities with our individual experiences. Complexes function like psychological "strange attractors," magnetically centering portions of our energy within their particular patterns of expression. This magnetic draw is the attractive force of Eros coupled with the psychic urge toward manifestation.

The imagery of anima/animus is based in archetypal symbolism and in childhood memories of significant others of the opposite sex. This includes parental attitudes and behavior, grandparents' influence, siblings, first-love, caregivers, mentors, and cultural expectations and norms.

Anima/animus determines our conceptualization of the ideal mate, and is responsible for such phenomena as "love at first sight," and "star-crossed lovers." It takes the elements of fate and destiny and combines them in an impersonal formula, which paradoxically feels totally unique. Anima/animus represents the balancing of masculine and feminine traits in us as individuals. This balancing is a form of sacred marriage, a union which produces a magickal child which is the higher Self, much like Eros and Psyche give birth to Voluptas, deep and abiding pleasure or satisfaction.

The animus is the masculine personification of the soul. He carries both a transcendent spiritual aspect and a personal aspect. He is shown in the tale as a beautiful creature, whom Psyche is at first convinced is a terrible monster-- sort of an "all men are beasts" programming. Later, she learns his true nature. Anima/animus are potential guides to the depths of the unconscious, forming a bridge to daily life. They are factors which transcend consciousness, both light and dark. So in a relationship which seems to have everything going for it, there can be friction or "animosity" produced by the unconscious forces (complexes) operating below the surface.

Most of these troubles stem from projecting the anima/animus image onto our loved ones, then maneuvering them into fulfilling our expectations. Internal conflicts come from the split nature of anima/animus which we experience in modern life. This again revolves mainly around the gulf between the "spiritual" and "sensual" aspects of the inner figure.

For example, a Madonna/whore complex, which is a split between the holy mother and the erotic love goddess. Or, the spiritual animus might be projected onto the figure of a wise man, a ghostly lover to whom a woman faithfully goes in her fantasy-life, or onto an idealized brother/sister relationship devoid of sexual options.

Reality must be found between idealized (virtually non-existent) relationships and degraded relationships. The sensual animus may be presented as darker gods of impersonal sexuality, phallic or obscene in nature. In any event, the animus represents a woman's need for creative expression. The more fully she can manifest this trait, the better her inner relationship to the animus becomes. He provides her with inner light, not inspiration which is a function of her anima nature, the core of her Self.

Anima/animus excite those feelings of longing, awe, fear of the unknown, and incomprehensibility. They imply that when we love deeply, we open ourselves to the possibility of betrayal and the pain of separation. We open ourselves to wounding, and this very woundedness is our openness. The transpersonal power of love can appear as an obsession or possession by another, against which rational thought is no protection.

Eros and Psyche represent the experience of this emotional-sexual level and its projections, coupled with the exercise of discrimination between what is archetypal and what is personal in life.

Occupations and preoccupations associated with this eternal love story include:

<p>bridal shop bridesmaid honeymoon hotel intimacy workshop</p>	<p>matchmaker prince/princess social butterfly feminine consciousness-raising group</p>
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EMOTIONAL IMAGE

"It is wrong to think that Love comes from long companionship or persevering courtship. Love is the offspring of a spiritual affinity and unless that affinity is created in a MOMENT it will not be created in years or even generations." -- Kahlil Gibran, from The Broken Wings

In the tale, Psyche, the human soul is still in the cave of illusion. Her sisters: complete cave dwellers who behave like envious sisters in fairy tales every where. Eros is the principle of desire for the good. Venus is placer of difficulties in Psyche's way. Psyche finally marries Cupid and becomes a goddess--the philosopher's soul by pursuing divine desires can become immortal. The myth of Psyche and Eros is a wake-up call to the Soul. On archetypal levels, this awakening can only occur through the call of the Beloved, represented in this story by Eros.

The myth begins with the birth of a young girl, Psyche, whose beauty surpasses that of Aphrodite, representative of the collective consensus stuck in old ways and refusing to grow. She resents Psyche's beauty and to seek vengeance enlists the help of her son/lover, Eros, to shoot one of his arrows at her so that she will be "consumed with passion for a man who bring her endless agony."

Meanwhile, no one will marry Psyche, as her beauty is so great that it is perceived as "too much" and loneliness ensues. In desperation, her father seeks the advice of an oracle and is informed that she is to wed "Death." She is attired in funeral garb and led to a high mountain crag where she awaits her fate. Eros, having been commanded by his mother, is awaiting nearby and seeing her for the first time is so struck with her beauty that he accidentally pricks his own hand with one of his arrows and falls deeply in love with Psyche. Instead of falling off of the cliff, the winds carry her to an idyllic paradise and she becomes the bride of Love/Eros.

This myth has many layers of depth and meaning. The beauty of Psyche speaks of the beauty of our Soul, which if unexpressed and in an unawakened state, there is no metamorphosis, growth or transformation. This equates to Death in an archetypal sense. The call of the Beloved, Love/Eros, lures us into becoming more, reaching for more, unfolding and blossoming. The "too much" beauty of our Soul is often times shunned in our world when fully expressed, and we often want to retreat back into the quietness of slumber.

It is a wake-up call to the Soul individually, but in grander terms a wake-up call to all Souls of the collective conscious, as we sleepwalk through our global devastation and destruction caused by wars and other travesties. It is also a wake-up call to perceive all the beauties that surround us in our world daily that go unnoticed by the sleeping Soul. This is not meant to be a sounding of an alarm, but a gentle reminder of awakening through the gift of Love. Listen to the call of your Beloved to gently awaken your Soul and walk in awe of your own beauty.

How does this myth of the divine lovers play out in modern emotional life? It is a metaphor of psychological growth -- "bringing up Psyche." It identifies certain developmental tasks fundamental to mature identity and the ability to love fully, such as sorting out feelings, setting appropriate boundaries, owning projections, developing a dispassionate Observer Self, and empowerment with compassion.

When relationships get stalled this process is stuck in the immature stage. John Bradshaw calls these "mystified relationships," still enmeshed in the dynamics of the very early family life of the partners. The issues of safety and trust are unresolved. These are

relationships which stick together for the sake of the children, and the "children" are the regressive personalities of the lovers.

The healthy Eros/Psyche relationship is one of empathy and intimacy, safety and passion. It is joyful and totally relaxed. When conflicts come up, as they inevitably will, there are means of negotiation. This is "soulful" love which includes many results of self-consciousness. It is generative in nature. There is bonding, commitment, vulnerability, self-disclosure, sensuality, ecstasy, as well as respect, caring, belonging, togetherness, toleration, and constancy.

Jeffrey Satinover, (M.D., physicist and Jungian analyst), examines the role of the Self in relationship in a tape called, "BEING SEPARATE, BEING TOGETHER." This talk is from a Jungian conference on wounding and healing in relationships. Every analyst knows that healthy, loving relationships are more healing than all the therapy in the world. The tale of Eros and Psyche is with us today in the psychological complex known as "puer/puella," (boy/girl). They are stuck at the adolescent stage of development. This same complex is imaged in the Tarot Trump, VI, THE LOVERS.

Much of psychic life remains hidden as in the initial stages of the myth. This includes secret thoughts, feelings, fears, criticisms, anticipations, etc. A psychological initiation occurs when we are suddenly forced to "go within" ourselves and discover or "own" the subconscious processes operating there. Gradually, we begin to recognize that relationship involves chronic "wounding and healing." In the myth, for example, Psyche spills hot oil on Eros while trying to see what he looks like during his sleep.

In love, the root experience is of the archetype of the Self. The broad, deep emotional experience coupled with detachment vacillates from impulse to action. This Self is the root of emotions when the ego is identified with it. The Self remains ineffable, or unknown, and is too sacred to be expressed in words. We experience the Self as our inner childlike nature when we act out a pattern of cyclic instability in our lovelife. We don't relate "adult to adult," but "wounded child to wounded child." Neediness on both parts keeps the legitimate needs of both from being met. There are periods of despair and exaltation, wounding and healing.

This is a variation of the archetype of the dying and resurrecting god. In its self-reflecting narcissism, this complex provides no stable sense of identity. We ask ourselves, "Who am I, and why can't I behave as I'd like to?" Some people seek therapy for this very absence of a stable sense of identity, after trying to form a false identity as a couple.

Love brings alterations and fluctuations between feelings of fear, of "being nobody," or worthless when we are wounded, or feeling special and precious when things are going well. These feelings may change rapidly depending on the emotional climate, and this is an unsettling feeling. The chronic emotion is a feeling of overwhelming longing for support of the loved one, coupled with feelings of extreme emptiness when the beloved is gone. Possessive jealousy comes from projecting our own negative self-image onto the rival who seems to succeed in an area where we have failed the loved one.

When the Self begins operating in an individual, the ego automatically begins acting defensively to protect itself against the intolerable sense of fragmentation which it anticipates will follow. The feeling of being unique and whole alternates with self-defense against feeling wounded and worthless. The defense consists of cutting off the roots of all intense emotional experience with the beloved, and may even extend into other friendships. Some people seek solace in the predictable gratification of alcohol or drugs as substitutes for the unpredictable pleasures of love.

The Self's proper role in relationship is concerned with self-analysis or getting to know one's inner workings better. Each marriage or relationship consists of a union among four aspects -- the normal consciousness of the partners and their subconscious or inner Self. Thus, a woman loves not only a man as he behaves in outer life, but his inner "feminine" soul; a man embraces his wife and her inner "masculine" soul. This relationship was depicted in alchemy as the marriage of the alchemist and his mystic sister who is his inner nature.

Instead of depending on one another for a sense of self-value (co-dependence), self-esteem emerges from within through reflective introversion. We can mirror, validate, and support ourselves when we listen to our inner nurturing voice. When we explore our own personal depths, we come into our daily relationships as whole people. Then we can form truly interdependent, reciprocal relationships.

"Falling in love" is a vehicle for the experience of the self. This experience, or even yearning for it, influences our daily life and human experience tremendously. As they say, "Love makes the world go around." Yet it automatically means there will be a fragmentation of personality following sooner or later, since an unconscious dynamic process has been unleashed. The old personality must be dissolved before the new structure co-created by the partners can be established.

Difficulties and disappointments follow when the other doesn't reflect back the expected sense of specialness or idealness. We often hold ideals of relationship which we have never seen and could not exist in real life. In an attempt to actualize our fantasy life, we unconsciously compel or manipulate the other person to fulfill it. There is a simultaneous attachment or identification of the ego with the vast potential of the Self, which no partner can maintain.

When one partner doesn't fulfill expectations, the addictive yearning to experience the specialness of the Self changes into an indifference to the other which is not genuine. This is a reactionary defense against the Self in that both the unique and fragmentary periods produce pain for the ego. It is difficult for the ego to "live up" to the idealized image, also.

There is a pressure on the ego to live the demands of the Self, or cut them off entirely in a negative defensive move. Longing and disappointment change to seeming indifference and then the person begins to seek outward. This is a compulsive drive to recreate the appearance of the Self through yet another lover. The feeling of jealousy in the deserted party comes from feeling possessive of the lover as something of one's own, and experiencing the loss of Self, or even fear of the loss of Self. The type of attachment that

believes the other is responsible for the experience of the specialness of the self leads inevitably to painful separations.

There is a "way of being together" in which both partners maintain separate identities. They are distinct, yet conjoined. In this liberated experience there is emotional intensity combined with detachment from compulsion. When each person experiences the Self with some degree of autonomy from identification with the ego, there is reduction of the strain in maintaining the Self of the other. We cease to make such exaggerated demands on one another. We let go of the reactionary stage of power struggles, and become emotionally independent.

The power-struggles (counterdependence) in relationship aren't for power, per se. They are manipulations and desperate maneuverings of the partners to maintain their individual sense of Self. These struggles are a natural stage which comes prior to true independence, individuation, or self-actualization. True lovers are partners as well as friends and lovers -- head and heart, feeling and intellect combine.

The associations of a complex can be detached from an image which should be archetypal. We can consciously separate out what is personal and human from what is archetypal and divine. We don't need to confuse our lovers with divine archetypal powers, though we each carry a divine component.

When we reown our projections, the other doesn't carry the burden of our spirituality for us. The spiritual problem is no longer disguised as a relationship problem. Our relationship with the higher power becomes direct. When each individual has an internal relationship with the Self, the other partner is not forced to carry and reinforce the projection of the Self. They are no longer exposed to the intense disappointment of the lover when they inevitably fail to live up to god-like qualities which only a higher power can carry.

Keywords for the cycle of Eros and Psyche include,

<p>abandonment anima/animus duality developmental path lovers love-at-first-sight lovesick enchantment pregnancy psychosexual ring rebirth feminine spiritual quest</p>	<p>initiation incubation fragmentation metamorphosis search sensuality</p>
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INTELLECTUAL IDEA

Though many versions of this tarot trump depict the classic love triangle, this card has much deeper meanings. Depth experience of the higher Self comes from being actively introspective, as shown by THE LOVERS in the Rider Tarot Deck. The male (consciousness) looks to the female (subconscious) who in turn looks to the Angel (Self) for guidance and direction. We should look within ourselves for validation and certain fulfillment. We need to examine our own feelings and thoughts, not pass the buck for our unhappiness onto our partners. Psyche abandoned by Eros becomes lovesick or depressed. In "Depression: Soul's Quest for Depth, Meaning & Wholeness" Maureen Roberts, PhD explores the prospective meaning of depression.

Sufferers of depression are often forced to endure, in addition to their pain and energy loss, the stigma of being told that they're 'ill', hence that their depression is a problem to be eliminated, or that it has no value, meaning, or purpose. From a soul-centred perspective, however, depression is not primarily another word for unhappiness; nor is it 'mental illness.' It is, rather, in many instances a response to soullessness (or what shamans call 'soul loss'), including, ironically enough, the soullessness of the materialist medical model which continues to 'treat' depression as a biologic illness that can be

To achieve genuine individual and cultural healing, we need, instead, more wholeness, that is, more soulful and well-rounded individuals who embody life's dance of opposites and in so doing live fully human, fully divine lives. We need more people who are not ashamed of, or embarrassed by their pain, but who can instead respond to their own and others' suffering - as an unavoidable facet of the human condition - with love, patience, sympathy, nurturing and respect.

True happiness, after all, does not exclude sadness, but rather embraces it within the living paradox which personal wholeness demands. As the quiet contentedness of joy, such happiness is not attained by seeking happiness, nor by eliminating sadness through addressing purely personal wants, needs, fears, anxieties and insecurities. Indeed, a reactionary cult of 'happiness', based on the indiscriminate elimination of all psychospiritual suffering, is in the longrun as lopsided, narrow, false, repressive and self-defeating as the current 'epidemic' of depression. Endorsing happiness above sadness, in other words, simply amounts to replacing one extreme (which is falsely viewed in a totally negative light) with its opposite, which is seen as positive. In reality, though, not all happiness is positive - and not all depression is 'bad'.

From soul's angle, far from being an 'insidious illness', depression is often a valuable phase of a person's life journey, a critical juncture at which a soul-searching re-assessment of priorities, directions, relationships, work, gifts, self-image, home life, spirituality and/or values is being called for. For this reason, dreams and myths often contain the theme of the 'buried treasure', symbolically the soul hidden, or trapped in the unconscious depths, which the hero or heroine must retrieve in order to become healed, mature, content and whole.

Mythically, the gods reside not only in celestial realms, but also down below in Underworld, the mythic equivalent of the unconscious. Soul, which unlike light, airy 'spirit', gravitates to the body, the Earth and the watery realms of night and ocean depth,

does not lift us to mountainous heights, but pulls us - when it's neglected, stifled, or shunned - down into neurosis, depression, suicide, psychosis and psychospiritual chaos.

As an example, in the Greek myth of the human girl Psyche, whose name means 'soul', Psyche abandoned by Eros (the divine Love which soul needs) is left alone, directionless, depressed - literally, 'pulled down' - hence she is finally driven to Underworld depths. For Eros, mysterious god of entanglements in relationship, involvement with life, immersion in suffering, depth and joy, is the god behind human vulnerability, the one who exposes us, through love, betrayal, cruelty and kindness, to life's inseparable blend of woundedness and pleasure.

Psyche, in other words, is a myth that provides a 'psych-ological' context for understanding depression as soul's need to descend in order to retrieve its Underworld treasure. By exploring depression from this soul-centred perspective, we have thus re-mythologized a universal (archetypal) human experience: soul's hunger for depth and for the elusive riches harboured by Hades, Lord of the dark Underworld of the unconscious. Just as Psyche had to journey 'down under' to find her way back to lost Eros, so we shall be driven to the depths of our wounds, depressions, madness and fears in order to be reunited with lost soul.

In the shamanic vision that this re-mythologizing of our lives is the medicine we need if we are to help one another reconnect to a life wrestled with, shared and celebrated in all its fullness, vibrancy, imaginal richness, pain and joy. With this guiding vision at heart, the following soul-centred delineation of depression offers itself as a yeast, vessel and catalyst to help reactivate the sense of soul within the individual, in the floundering field of mental health, and throughout global culture as a whole.

Depression, which literally means 'a lowering', occurs when energy (libido) which is normally available for day-to-day conscious living, becomes depleted, blocked, pulled down, or trapped in the depths of the unconscious. Depression can arise through endless combinations of psychospiritual and physical causes, but in many cases, its primary source is an unresolved, repressed, or forgotten grief, trauma, crisis, conflict or loss. In addition, depression is often an emotional, relational and spiritual response to a sense of meaninglessness, lack of harmony with Nature, or lack of truthfulness with oneself and others. Poor diet, seasonal changes, lack of sunshine and lack of exercise can contribute to depression, as can soulless environments, materialism, lack of imagination, damaging relationships, dull routine, empty forms of work, and apparent lack of life purpose.

Depression is a natural human response to an endless variety of circumstances and states of unresolved suffering, or tension within the psyche. While it can be debilitating (for example, in cases of repressed conflict, extreme crisis, or forgotten childhood trauma), it can also have a creative outcome. For example, some depressions are caused by a lowering of consciousness in order to retrieve needed wisdom, or creative and healing gifts from the unconscious.

This kind of depression is best dramatized as myth, when the hero or heroine must go through a symbolic death and rebirth. Examples of such myths are Dionysus, Osiris, Christ, Demeter and Persephone, Orpheus and Eurydice. Reading and reflecting on such

myths can help provide an imaginal context for soul's journey through depression. Bear in mind that the depression is never the end of the story. There's always a rebirth at the end of the journey!

The Self is a powerful internal dynamism of positive and negative manifestations which range from despair to exaltation. Since it symbolizes this entire range of emotion, you can't depend on it like a benevolent parent. When each partner isn't held responsible for what they are, they have the option of acting with charity or benevolence, instead of out of a compulsion to control one another.

The nature of any relationship cannot be predicted from the qualities of the separate people involved. For example, oxygen and hydrogen chemistries do not predict the emergent properties of their combination in water. Both are completely altered in the process of uniting.

When people enter a relationship, there is a trans-FORM-ation of personality. The old form of the ego must die to be reborn in service to the relationship. Even the word 'transformation' contains images which intimate a knowledge of the fear of death. Morphe- (also in metamorphosis) means to gleam or sparkle with an appearance seen as beauty. "Trans-" contains images of piercing, mutilation, or maiming. These images of needs and distress produce relationship, but not idealism.

Eros embodies both compulsion and inhibition. We are both anxious and wary or leery of love. Love and fear seem to go together. The natural inhibitions of Eros need not be overcome. They are his way of eventually getting in touch with Psyche on a more profound level. Eros embodies both creative and destructive instincts, therefore love can be a long process of being wounded and regenerated. Psyche would still be a virgin if she and Eros didn't go through this cycle. She is the reflective instinct, who would still be fascinated with her own dreams and visions if Eros didn't change her.

Eros makes Psyche's potential fertility into a regeneration of the power of love. At last, Eros and Psyche are united in vitality and passion through the imaginal aspects of interested love. The archetypal patterns are not only perceived in life, there is an active participation in the cycle. There is a suffering of impossible love until Psyche's soul work, symbolized by her tasks, is completed. Then a psychologically creative union produces experiences of pleasure, the "Pleasure born of the soul." There is perception of the dimension of immortality intimated by love.

How does the heart open to the other? This riddle has long obsessed human-kind. In the blink of an eye, Eros's dart pierces the shield of isolation, and fragmentation is no more. A new question appears: who am I who is so easily smitten? The first lesson of the lover is vulnerability. Acceptance is indeed a work. To allow love to show its beauty, the soul must submit to onerous trials, as Harriet Eisman describes in her study of the tale of Eros and Psyche. If we harden our position, and our hearts, into thinking that love is our due and not an earning, then the end of this story is all too familiar. Love turns into its opposite, attachment. The ego may immediately inflate to an even larger size, forsaking the call of integration. The addiction of a Cassanova or Don Juan is the self-centered solution to love's enigma.

Yet if we accept the "wound" of love, a bridge to what Jacob Needleman calls another level of being springs into existence. Wholeness, advaita, nirvana: different traditions express the same mystery of crossing over. In each, the embrace of a non-dual consciousness frees us from the desire of conquest. In this way, we are touched by the mystery in which love blends two into one that yet remain different.

If we accept, what must be accepted is the essential incompleteness of our humanity. In Plato's image, we once were eight-limbed and double-sexed, but were bisected by gods who feared for their power. Moved by erotic desire, we now perpetually and unsuccessfully seek our "other half." However the relentless pull is explained, poetry of all ages, as Sam Hamill shows, celebrates longing for union with the beloved. Eros, erotic love, finds us unexpectedly, without warning, and instantly we are all attention. Called back from dreams, we are again ready to meet joys and sorrows of the hero's journey. But what if we find total fulfillment in our beloved and forget the unending role of the hero? Francesca, the most sympathetic figure in Dante's spiritual journey, speaks of such inner death:

Love, which permits no loved one not to love,
took me so strongly with delight in him
that we are one in Hell, as we were above. (V.105)

Most remarkable of all in Eros is his mighty force. It is a force with two edges. Turn it one way, and it cuts through walls of separation. Turn it another, and discernment is sacrificed. With what knowledge must we travel to face the hero's challenge with skillful choice? (David Appelbaum).

Further reading on Eros and Psyche may be found in the following:

IN SEARCH OF THE BELOVED, Jean Houston, (guided imagery exercises for Eros and Psyche)

THE GOLDEN ASS, M.L. VonFranz

AMOUR AND PSYCHE, Erich Neumann

SHE!, Robert A. Johnson

EROS IN LANGUAGE, MYTH, AND DREAM, Russell Lockhart

THE MOON AND THE VIRGIN, Nor Hall

THE MYTH OF ANALYSIS, James Hillman (Part I)

FROM CHAOS TO EROS, "Eros and the Experience of At-Homeness in Reality," Betty Meador

"Being Separate, Being Together," Jeffrey Satinover (audiotape, 1980)

CREATING LOVE, John Bradshaw

THE COUPLE'S JOURNEY, Susan Campbell

A CONSCIOUS PERSON'S GUIDE TO RELATIONSHIPS, Ken Keyes, Jr.

LIFEMATES, Harold Bloomfield, M.D. & Sirah Vettese, Ph.D.

P.C. MILLER, "Plenty Sleeps There", The myth of Eros and Psyche in Plotinus and Gnosticism", in Neoplatonism and Gnosticism, ed. R.T.W. ALLIS, 1992, p.223-238.

SPIRITUAL MYTH

The tale of Eros and Psyche relates the trials and tribulations of a maturing love affair. It means moving from separation and control toward praise, honor, and love. It occurs within the psyche through the process of metamorphosis. In fact, the Greek word 'Psyche' means butterfly and this process of essential restructuring involves cocooning and re-emergence in the new, potentiated form. The failure or stalling of this natural growth process is a spiritual issue, and may become a spiritual problem, which most frequently is perceived as a relationship problem.

Eros and Psyche are the primordial lovers. In this context Eros is more of a transpersonal daimon than a god. The Gods relate among themselves, but a daimon mediates between gods and men. Psyche is a diminutive incarnation of Eros' mother, Aphrodite. She personifies the anima and positive mother-complex. By her attributes, we can see that Eros has a good feeling relationship with women and the unconscious, but one which is still too naive. His attitudes toward love are idealized.

Eros himself has been acting like the archetypal Don Juan before his encounter with Psyche, expressing the pattern of behavior his mother favors. This shows he is still identified with her, still in the grips of the puer complex. He is a son-lover, still compelled to serve his mama.

Aphrodite is jealous of her own incarnation in matter. This deep level of the unconscious does not wish her son to develop out of his naive, unquestioning attitude toward her role and desires for him. She is angry and tries to destroy Psyche or Eros' reflective ability. She realizes that Psyche embodies the mother-complex of Eros, but as his anima image is closer to consciousness than she is.

Things proceed well, though blindly, in the newlywed's paradisaical realm until Aphrodite stirs up trouble by sending in Psyche's jealous sisters. These sisters instill grave doubts in Psyche regarding her lover. They are too skeptical, too cynical, and too aware of the mundane side of relationship.

Secretly, they wish they could recapture some of Psyche's naive romantic attitudes in their own relationships. The closeness of their friendship opens the doorway for envy to enter. What is needed, though is a mature attitude which recognizes the paradox of love. There is always a divine and banal aspect to relationships. Both together represent a realistic, well-rounded experience, that is neither debased nor idealized.

Psyche begins her marriage as mortals do by being "in love." She is contained in a very unconscious state in the palace of Eros. She is possessed by love -- in love with love. She longs for that superhuman quality of perfection in her lover. However, her humanness makes it necessary for her to make a transition to being consciously loving, accepting imperfection. All of the forces which surround her conspire to make this absolutely necessary. The agents of this process include Psyche's inner desire toward consciousness, the sisters, Aphrodite, and Eros himself. She needs to divest herself of her myths about relationship and personal growth.

Eros compels her by remaining in the dark. His soul is still in the grips of primitive passion -- sexual objectification. So, of course, after a time, Psyche resolves that she wants a real

relationship and wants to see her lover "as he really is." She has wearied of "nothing but sexuality." Her real motivation is her fear, but the unconscious has its own, as-yet-unknown goal. She also has the burning passion which wants to know real love.

When she surrenders to the mysteries of the soul, she embodies the genuine, personal love. Paradoxically, at this point, Eros flees her (incapable of emotional intimacy). Aphrodite (in an attempt to destroy her) sets the tasks which further her inner development. These are experienced as insurmountable problems, and she has suicidal impulses at each difficult point. These symbolize her readiness for self-sacrifice, but also allow her to transform from one level of consciousness to another.

Psyche's first task, sorting a huge pile of seeds, is set by Aphrodite. Psyche's biological instincts come to her aid in the form of ants. This "ant-quality" is a primitive, quiet quality which is part of her inner masculinity. It is a discriminating function of Eros. In fact, she has instinctually discriminated and sorted seed in a literal sense. She becomes pregnant by Eros while still in the paradisaical state of unconsciousness. Even though she has seen the divine quality of her lover, she is no longer only animus possessed, but begins to live woman's inner biological mystery. In a way, Eros is with her through all the trials in her inner world as her incubating child.

She regains enough faith to tackle the second task which is gathering some fleece from the "golden rams of the sun." This time, she earns a bit of the Logos, or the power of the spiritual impulse, which is a trait of masculine consciousness. But she does it, thanks to wise counsel, by avoiding direct contact with it in its destructive form.

She can wield some masculine power, but need not gain it in an aggressive way. She is coming to know Eros' nature better, even though he is not there. Psyche is coming to know and understand him from the inside out, by contacting her inner animus, acknowledging the potential of her inner masculinity, while remaining absolutely feminine to the core. Through this process, she is coming to know herself.

Psyche is mustering her inner strengths as well as courage and valor; but true to form, she collapses at the prospect of the third test. Aphrodite makes the trials progressively harder. This time she must fill a crystal goblet with water from the river Styx, the powerful current of psychic energy.

Psyche succeeds in capturing a bit of this river of life with the help of Ganymede, an eagle sacred to Zeus. This eagle represents high-flying spiritual intuition. She is, once again, saved from destruction by an act of grace. By dipping only a small amount from the river of libido, her fragile ego (the container) is not shattered. By listening to her quiet, inner guiding voice, Psyche was able to complete her nearly impossible task, through methodical concentration. Psyche's ability to touch her unconscious depths gave her access to the creative solution. She understood this through an intuitive vision.

The final test involves a terrible journey to the underworld. One needs proper guidance for such a journey. Modern examples of this task of making Psyche more conscious include the therapeutic process of individuation and spiritual disciplines like yoga and mysticism. This process of understanding one's depths repeats the shaman's initiation in the underworld

and leads to self-realization of inner potentials. We become progressively more enlightened by shedding our illusions about self and world. It requires all of the energy and resources we can muster. Once begun it must be followed through to the end.

Psyche fortunately acquires the treasure of the subconscious as the box of divine beauty which Aphrodite has demanded of her. The beauty of Persephone is the resplendence of the most profound depths of the feminine Self. Betty Meador calls it "the awesome and overpowering essence of death and resurrection, the passage of the female goddess through the dark regions of Hell into rebirth and transformation." This process was the subject of both the Isis and Eleusinian Mysteries.

On her return from the underworld (subconscious), for love of Eros, Psyche opens the box of beauty ointment. Seeking to make herself more desirable to Eros, (and inadvertently cheating Aphrodite), she does not have the courage to face Eros as herself. She wants to remain disguised in Eros' anima projections, which hark back to his mother-complex. Her fantasy is that then they could continue to share the paradisaical state.

True, she does this for love of Eros, but this keeps him in his adolescent phase, devoid of the maturity a real relationship would bring. She regresses into an unconscious state of deep sleep. She becomes a "sleeping beauty." In this apparent failure, she shows herself to be most human! How unbearably egotistical Psyche might have been if she had completed the tasks perfectly. Through her regression into humanness, Eros is redeemed from his boyish hangups and allowed to mature. He can show some true love, rather than instinctual reproductive passion.

Through his love Eros redeems Psyche and awakens her to an understanding of the archetypal functioning of the animus as a bridge to the divine. She is transformed from her mortal condition to an awareness of her own immortality of soul.

Together they experience the birth of their child as joy, mutual ecstasy, and the pleasure of life and love. There is a blending of the human and divine qualities in love. The opposites merge in mutual love, and experience unification on a profound level which has both depth and conscious awareness. Eros is contained within Psyche. The reproductive instinct transforms into a highly differentiated feeling function, and Psyche goes through rebirth which frees her "butterfly" nature. Feeling is a reflective function which requires time more than perception. When Psyche evokes true feelings from Eros, her task is complete. Daily life is connected with archetypal reality.

Eros embodies the Mystery of the Inner Process in matter and spirit. Love is the fundamental universal principle that even holds atoms and molecules together as matter. Eros is a mysterious energy inherent in the whole of creation, fascinating seekers all over the world. Across the cultures, Eros takes different names but still remains the same agent that has to be awakened from within, since it is the only element that can transform the human psyche.

Psyche has to be pacified and Eros' "fire" has to be transformed into "light" so that he can become the mediator and guide that gently pushes and pulls the seeker towards the source of divine love—Eros the Beloved—that awakens from within, guides and accompanies the

seeker from within the inner planes. He is the inner witness, the agent within the seeker that unfolds gnosis, or divine knowledge. This divine knowledge awakens higher levels of consciousness within him and, in turn, these levels of consciousness aroused by Eros lead the seeker back to the source of light.

The Greek mysteries relate that at the very beginning of creation, only chaos existed, and from chaos was born the cosmogonic Eros. Elsewhere, according to mythology, we are told that amongst the gods, Eros was the most handsome. This is how theogonia (the birth of the gods) begins and we are assured that the poet Isiodos heard it from the mouth of the Muse herself. According to Isiodos, Eros represents the driving force behind the entire theogonia. The Orphics agree that Eros appears at the beginning of theogonia and cosmogonia in general, and they tell us that his mother was Night, the dark goddess, and his father the Wind. From their first cosmic and elemental embrace, Eros was born from a silver egg.

For the Greeks, the essence of Eros is the unfoldment of human thought, and in Greek philosophy, he is described as a liberating agent who releases and activates the creative process of the mind. Eros inspires and opens the channel of intuition to the higher and abstract understanding and communion with beauty and truth. The myth of Eros and Psyche describes in detail the inner process of transformation. In fact, Eros cannot be separated from his beloved Psyche, since they are united by a secret and sacred bond, invisible and unconscious in man. In fact, man's psyche remains filled with erotic, sensual, carnal desires that keep him and his mind trapped on the physical plane along with his emotions and consciousness. But a seeker must transmute the attraction of Eros and awaken the bond with his psyche so that he can rise towards the "beloved," the invisible golden thread that links his consciousness to the universal qualities of beauty and love.

The gifts of Eros affect the emotional and thought processes of humanity, especially those of a seeker who has to learn how to open up and integrate these gifts in his psyche. From the lowest and most physical levels of consciousness to the most spiritual ones, Eros remains forever present, gradually transforming the inner fire into pure light. Eros operates in every living creature, and Greek poetry and philosophy describe how nature partakes of the gift of Eros. Hence we could say that Eros' contribution to humanity is not only inherent in man's psyche, but that it is also involved in the process that awakens the ego to its true nature, the beauty and unconditional love of the soul.

This awakening activated by Eros and Aphrodite reveals the qualities of pure love and gnosis in the consciousness of the seeker. This level of consciousness cannot be described, however, because it is itself a higher aspect of intelligence in which abstract knowledge and impersonal love are combined. We could simply call this level of awakening, wisdom. So, on one hand, Eros can simply mean carnal love and desire for material possessions, but on the other, it can also express the spiritual energy that attracts and leads the psyche towards the Center of Pure Being, where the beauty and love of the soul are revealed.

Many Greek philosophers, Plato and Pythagoras included, said the same thing—that beauty and gnosis are inseparable and inherent in the essence of Eros. Thus, we understand that in the psyche of man, Eros rules over his carnal desires but also over his higher aspirations and longing for wisdom. This is not the playful cupid, the winged son of Aphrodite and Mars, but an elderly primordial deity, worshiped by the ancient Greeks as

the first element of the primordial creative cause, the element that binds and attracts spirit and matter together.

Greek philosophers saw the spirit of Dionysus penetrating the whole of nature and binding together the two aspects of Eros, the penetration and blending energy of matter with its counterpart and complement, spirit. Esoterically, Eros is the leading force within a seeker that takes him away from a level of duality to a level of unity and wholeness. Furthermore, Eros is the key to transforming psychic vibratory rates. He does that by placing a seeker on his axial center, the neutral and timeless zone within his conscious self. This level of being brings about the integration of ego with soul. Hence, Eros is the god or essence that gives us the possibility of letting go of the past and living in the present moment, embracing spontaneously everything within and without our reach.

Eros allows us to see everything as part of our own nature. He also shows us how to transmute carnal and unconscious attractions and desires of all kinds, and how to re-direct and reintegrate their energies back into the center of pure love and wisdom. This inner process must be conscious, because the ego and psyche must harmonize and unite before being invited to enter into the higher realms, where the qualities and gifts of Eros are awakened. On that level of achievement and realization, the seeker receives more gifts from Eros who directs him towards his own invisible and sacred Center of Pure Being, not really a "place" at all, but more a level of being and attunement. This is a level of consciousness where the essence of pure love and beauty manifest themselves through ordinary consciousness and can be said to be a part of the undivided unique consciousness of the whole of creation.

In *Symposium*, Plato expounded that Eros had two aspects, one physical the other intellectual, i.e., wisdom. He knew that they had to harmonize and blend so as to transform ordinary men into heroes. According to Empedocles, "Aphrodite is Eros himself," the immortal force that unites and harmoniously blends together all the elements in nature, the "bringer" and "giver" of life. He also said, "the path to knowledge can be achieved only through Eros himself. The energy represented by Eros brings about a balance between pleasure, delight and gnosis, and this harmonious and enthusiastic search for gnosis comes not so much from the answers one receives but more from the search itself."

Hence the quest goes on forever, since pleasure and gnosis go hand-in-hand and cannot be separated. Eros questions everything because he loves wisdom and is, therefore, the living source at the center of Greek philosophy. So Eros teaches the Greeks how to become free and fearless in the face of the unknown. He invites them to follow the path of knowledge and apply the sacred principles of freedom and equality, qualities that belong to Eros' mother, Aphrodite, whom Empedocles identifies with Eros for, without the freedom and courage to explore our inner nature with imagination and intuition, we remain unconscious prisoners of conventional ideas, routines and vicious circles.

Hence, Eros is himself the "mixer of the seeds and sperms" in creation, the primal cause, the bringer of life in the womb of nature. Eros's gift to the seeker, therefore, is the transmuting energy of pure love, which is synonymous with the Logos. The oldest mythology of Homer does not mention Eros. Apparently Eros was not born out of a popular tradition but he is the creation of an abstract philosophical conception.

In Greek esoteric philosophy, the Eros of theogonia took part in the creation of life itself. Eros pulls the sexes together and rules over all living creatures through the need for procreation and, for that reason, we see Plato, Sophocles, Euripides, etc., praise his irresistible influence along with his mother, Aphrodite, as they both give life and rebirth.

The orphic firstborn god Phanes Protogonus, known also as Eros, Pan and Phanes-Jupiter who sprang from the primeval egg. In the picture, he seems to be emerging in flames from the sundered halves of Phanes' egg, above his head and below his feet. The symbolism also includes solar rays and a lunar crescent behind his head and shoulders; masks of ram, lion and goat on his torso; thunderbolt and staff in his hands (the attributes of Serapis), while around him are the familiar circle of the zodiac and the square of the winds. The inscription "Felix Pater" and an erased female name suggests a Mithraic environment, thereby identifying this picture also as Aion.

Tarot card VI is the Lovers, representing an inner process. It portrays Eros, the universal power of union and love, the agent that brings a new level of consciousness to the seeker, and of "being alive" in the world. Eros is shown pointing his arrow towards the seeker's crown chakra, meaning that the seeker is in a higher initiation that will unite the two opposites and paradoxical sides within himself, and blend them on his axial level. In that axial inner space within his being, the soul reveals itself to the seeker in many subtle ways. The gifts of Eros are many and they manifest in the ever-fleeting present as sudden bursts of enlightenment and intuition that are part of a transcendent primordial knowledge that gradually unfolds in his life.

Interpret this card as representing a high level of initiation that corresponds to a baptism of fire, or the awakening in a seeker of a higher level of the abstract mind that remains a grace and a sacred mystery. Receiving the "wound" of the arrow of Eros illuminates the ego, or the limited mind of a seeker, and opens it up to receive higher truth, from where it unites itself with the source of the primordial tradition. The conscious choice of the seeker to enter a new dimension of being comes after his spiritual transformation and rebirth when the arrow of Eros opens his crown chakra, and from that opening, spiritual love pours down and inundates the psyche of the seeker who, from that moment on, transforms from being a lover of self to a lover of God.

Eros brings about conscious spiritual transformation in a seeker, unfolding in him higher levels of consciousness. Later on, Eros appears as a cruel, playful child who torments gods and mortals alike, giving them more sorrow and misery than harmony and joy. Cupid aims his arrow directly at the human heart, piercing it, but we should look at this as purifying, as awakening and introducing the spiritual element into the nature of psyche itself. It also teaches us how to escape the entrapment of the lower energies

In Kabbalah, the imagery of love, or eros, is crucial for a discussion of Shekinah. Eros implies a yearning for unity, harmony, and completion. Shekinah is the aspect which receives an impulse from its masculine counterpart, Yesod, and engages in the creative activity of harmonization. It is a mystical marriage bringing balance to the world. This marriage is God's call to Himself in a transfiguration of His harmony in love. One important principle in Zoharic thought is man's role in maintaining the sefirotic balance. What is found in heaven is found in transfigured parallel in the world. The actions of man

affect sefirotic harmony, balance, and wholeness. In following Torah, one influences one's sefirotic counterparts, thereby helping to keep the divine realms in harmony.

CULTURAL COUNTERPARTS

Cupid and Psyche (Roman)

Kama, lord of love (Hindu)

Sir Lancelot and Guinevere (Celtic legend)

CONTEMPORARY EXAMPLE

It looked as if a modern counterpart to Eros and Psyche would be the fairytale romance of Prince Charles and Princess Diana. It came complete with a meddling mother and jealous siblings, but no fairy tale ending. The jealousy was there when Diana's good looks and sparkling personality captured the affections of the world.

But the relationship quickly went from the "in love" stage to that of counterdependent behavior and power struggles. Charles triangulated the relationship from the beginning, leaving room only for pseudointimacy based on false-self roles.

When the relationship degraded further, they began living totally independent lives based on their respective interests. The conflicts cooled down because they simply left one another alone, relying on their "false couple" image. The marriage de-railed prior to the stage of co-creative interdependence.

John Lennon and Yoko Ono; Elizabeth Taylor and Richard Burton.

KEYWORDS

Intimacy, empathy, safety, passion, joyful, bonding, commitment, soulful, vulnerability, ecstasy, desire, sensuality, self-disclosure, heartache, togetherness, longing, toleration, constancy, respect, caring, self-consciousness, belonging, compromise, generativity.

DIALOGUE WITH EROS & PSYCHE

You may use a little self-reminder, when caught in old emotional patterns in your relationships. Just "Ask your Anima!" or animus, discussing it with the contrasexual aspect of yourself. Even if the discussion is not fluid, the response of the inner figure will be quite revealing. Is there envy, competition, immaturity, narcissism, or an opening for safely revealing yourself to the "other"?

Notice how your beloved is similar to or different from your parent and idealized anima or animus image. What is realistic. Remember, no one will ever love you truly unconditionally simply because they are human. Also remember, the archetypal dynamic operates in, through, and behind all human relationship, conditioning it with its own divine agenda irrespective of our personal needs.

Some of the issues and areas of intimacy include sexuality, emotional intimacy, intellectual sharing, and other forms of communication. Aesthetics, creativity, recreation, crisis

management, conflict management, commitment and spiritual sharing are fertile areas to dialogue about with these inner daimones. Also, try communing with their daughter, Voluptas, whose name originally meant "plunging into life."

Jean Houston concludes her contemplation this mytheme with an image of fulfillment: "Thus Psyche's search for the Beloved of her soul has plunged her into discovering the psychic source of instinct, wisdom, discrimination, and culture. She now rises on strong but gossamer wings as the vision of transformation and the call to the soul."

EROS AND PSYCHE IN YOUR LIFE

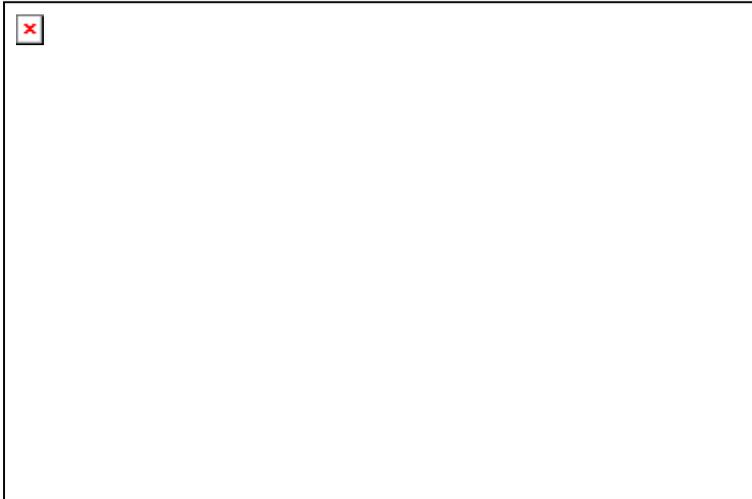
- 1. Do you believe, or ever act like you believe that love means giving up yourself for another. Do you allow their needs to supercede your own?**
- 2. Married or not, do you carry the fantasy that the "right" person will come along and heal your wounds if you simply wait long enough?**
- 3. Do you "fall in love" with potential lovers quickly, or stay stuck in relationships where no growth takes place?**
- 4. Can you relate to Psyche's tasks from any period of your life? Is this dynamic still in process? If the developmental process derailed in any of your relationships have you noticed a pattern or similarity with your early childhood situation?**
- 5. How committed are you to your personal growth and how supportive of your partner's personal growth?**
- 6. Do you have a means of negotiating conflicts and differences? What is it?**
- 7. During the "in love" stage, we are essentially still "living at home" in a state of blissful fusion, trying to recreate and maintain the unconscious unity of parent and child. The yearning for this original condition may be the source of divine longing. What is your relationship to this developmental stage right now?**
- 8. Plato called love the "child of fullness and emptiness." We can be filled with it, or feel it as loneliness, heartache, and anguish. In your dialogue, you may also include the child of the union, Voluptas. How do you experience the fullness and emptiness of love? Describe your emotional hunger.**
- 9. What does "soulful love" mean to you personally?**
- 10. The dark side of love includes disillusionment, betrayal, anger, and grief. What was your biggest disappointment? What unrealistic expectations did you hold?**
- 11. Have you used the imagination process (psyche) in a therapeutic way to further the bonding and intimacy in your relationships? How? We need to be able to imagine being different to change. Just imagine what different behaviors could produce different outcomes.**

12. What significant relationship are you involved in? How does this relationship mirror your own sense of self-worth? What choice or decision do you need to make? What responsibility will you have to take for your decision? What needs to be combined, synthesized or brought together?

*Demure Hestia, help me to focus.
The hearth of the home is your eternal locus.*

CHAPTER VII: THE CHARIOT

HESTIA



Hestia ("the heart") was the goddess of hearth, home and family. Home is where the heart/hearth is. Each city had a public hearth sacred to Hestia, where the fire was never allowed to go out. At festivals she was the first goddess invoked, and she was also offered blessings at the beginning of each meal. Hestia was also one of the three virgin goddesses, and turned away both Poseidon and Apollo. She petitioned Zeus to remain a virgin and he respected this right.

Hestia was originally one of the twelve supreme gods on Mount Olympus, but she grew tired of the petty intrigues and wrangling that went on amongst the Olympians. So she gave up her position, her throne to Dionysus, the god of wine. As a result, it was said that she still received part of every offering made to the gods.

This trump in the Tarot is THE CHARIOT which represents the vehicle of conveyance for consciousness. The Chariot allows us to take consciousness journeys through the wide realm of the imagination. It harnesses the opposites to create volition. This requires a turning inward from the vast array of stimulation bombarding our senses from the outside, and finding a still center. Riding on this Chariot, the Throne Chariot of God, the wheels turn, but the axle moveth not. This is the prudent, balanced life, open to the inner self and quietude, pursuing the conquest of illusion. Receptivity is increased by silence, retirement from participation.

The path of the Chariot transcends all sense of "my-ness" and is seldom personal in its implications. It describes someone who has conscious awareness of purpose; already refined in body, mind, heart and soul to be a clear vehicle for the presence of Indwelling Spirit (Compton, 1991). In the physical world, it is the field of all undifferentiated substance; alteration, vibration, flux and reflux, involution and evolution, and also culture, education and growth.

Water, in both metaphysical and Jungian terminology, represents the "sea of the unconscious," in metaphysics, the ocean of pure, clear Light. It is the restoration of the Word, the "Voice of the Silence," which contains secrets uncommunicable with human tongue. In Kabbala, Shekinah is revealed through the alchemy of letters themselves. Occult speech, or meditation by passes the mind and influences us through the subconscious. Spirit then flows in abundance.

Form becomes a vehicle for Spirit's intention, and form is directed toward its ultimate reunion with its Source. 'Cheth' is the enclosure or container of spiritual essence. The Chariot is the carrier of our own special journey toward individuation. The human personality is likened to a chariot, the vehicle of our lives. It is 'rest within movement,' loss of sense of self-identity, pure non-attachment without cravings.

The goddess of this deep center or introversion is Hestia. She helps us find that quiet state of consciousness which characterizes contemplation and meditation. She helps us focus our attention inward in a non-heroic, non-linear manner. Hestia is essentially a goddess of meditation and a balanced lifestyle. She is the Will to be receptive to the influx of higher power, to digest both inner and outer experience which increases foresight or circumspection. She finds ways to express the exalted aspects of love.

What we call 'volition' is the synthesis of all the universal forces coming to a focus at a point within us. It is the Will, the power of choosing; a conscious choice or decision, sometimes measured by our ability to "let go." It means the choice between our idealized, glamorized fantasies and plain, simple reality. It means abandoning even 'positive' thinking which is a polarity, for an unvarnished truth -- discretion, discernment.

This trump is about the conquest of illusion through connecting with the inner self -- inner conviction -- a vision quest. THE CHARIOT symbolizes control over the tension of opposites, and that is also the nature of meditation, a suspension of the duality and polarization that characterize outer life. The corresponding Hebrew letter is Cheth, which means 'fence.' Meditation is the fence around the crop of our contemplative efforts.

Like THE CHARIOT, the personality is a vehicle for cosmic forces which operate within us largely at the subconscious level. This trump represents the power of astral projection and attraction. When we meditate, we may be physically in our rooms, but mentally far, far away; or, perhaps our imagination brings strong images of another to us. Meditation is simply becoming aware of these patterns, then moving past them to the depth where the still center appears as the Void or the "I AM." The Chariot is about setting forth on the journey of spiritual development. In Hebrew, the word for Chariot is *merkabah*, and it is associated with a form of mysticism. In throne mysticism, the aspirant is absorbed in visual contemplation of the Throne-Chariot of God.

Hestia was originally one of the twelve Olympians. She was the first-born child of Cronos and Rhea, and the first to be swallowed up again when Cronos realized he would be overthrown by one of his offspring. Hestia is such a gracious and pliant goddess that when Zeus wanted to make room on Olympus for the arrival of Dionysus, she gave up her place among the divine dozen. Apparently she did not mind being displaced since she carries "the center" within herself. She has a sense of direction, of purpose inside.

Her personality is typically humble, letting life find unobstructed manifestation through her. Her mytheme is renunciation. Her mandate is seva, or service. She is self-controlled, self-disciplined. She is the quiet type, but her unuttered speech contains the power of silence and secrecy which comes from the control of language. It increases receptivity. She is a self-sufficient individual who derives her sense of self worth from within, as shown by her perpetual maidenhood.

This Virgin Goddess is a variation on the archetypal theme of the Holy Grail. Hestia is the virgin goddess of the hearth and its fire, as well as protectress of the home and of the state. She "keeps the home fires burning," as goddess of hearth and home. Her attributes include Intuitiveness; Female energy; Receiving information from within.

Hestia as the goddess of home and hearth, represented the ideal of purity in these areas. Possibly for this reason she was an eternal virgin, deliberately remaining aloof from the advances of the male gods. It is important to note, however, that both Poseidon and Apollo sought to court her, but she refused them. Indeed, it is also worth mentioning that in Greek mythology, Hestia, along with Athena and Artemis, were the only goddesses who were immune to the passions aroused by Aphrodite. Despite her importance in Greek religion,

Hestia is not well represented in either mythology or art. Be that as it may, the goddess received her share of honors, including a Homeric Hymn.

"Hestia, you who tend the sacred dwelling of the far-shooting lord, Apollo, at holy Pytho, from your tresses flowing oil ever drips down. Come to this house! Come in gentle spirit with resourceful Zeus and grant grace to my song!"

Her sacred fire was moved from Greece to Rome by Aeneas who was from Troy. The tendency of fire is to transmute a material substance into a more rarefied form. This is also true of spiritual fire; it means the dominion of the spirit over form. When we can observe what is unworthy in ourselves, this fire purges us of corruption.

In her temple in the Roman Forum, six vestal virgins watched by day and by night to assure that the sacred fire did not die out. These virgins, consecrated to Vesta (Hestia), maintained the sacred fire or perpetual flame which was kept burning on her altar. Psychologically, this initiation meant that the temptations of the physical world were surmounted.

The six vestal virgins entered the service of the goddess around the ages of six to ten years old. Their term of active service lasted thirty years. After that they were permitted to marry, though few did since they were instilled with the virtues of this goddess. They received great honor and had very important public privileges. Their persons were considered inviolable, and woe to the vestal found guilty of unchastity. If her spotless chastity were not maintained, she would be immediately killed along with her lover.

PHYSICAL FORM

Hestia is the goddess of the hearth. She is also known as Vesta (Roman). Although an important deity in Greek religion, she is rarely depicted in art, and has virtually no mythology and iconography. Hestia, being the first to be swallowed, was the last to be disgorged, and so was at once the first and latest born of the children of Cronos. In the high dwellings of all, both deathless gods and men who walk on earth, you have gained an everlasting abode and highest honor: glorious is your portion and your right. For without you mortals hold no banquet, --where one does not duly pour sweet wine in offering to Hestia both first and last.

The self-sufficient goddesses, Artemis, Athena, and Hestia were known in antiquity as the virgin goddesses. None of them ever married or had children. For a modern woman, these archetypes do not denote a physical status or age, but a state of mind. Emotionally, she is self-contained, needing only her own approval. While the self-sufficient woman may eagerly welcome company and truly enjoy being a wife and a mother, she also finds contentment in solitude. These three archetypes are often described as independent and strong.

Some women's jobs require years of formal education or take them to an office everyday. Other women work from the heart or from the home. Hestia is the goddess of sacred wisdom and the hearth. Known as Vesta to the Romans, she was the patroness of the Vestal Virgins, who guarded the sacred flame of Rome and the prophetic writings of the Sibyl. In myth, Hestia is the wise woman of the village, the priestess or seeress in the temple, the

witch of the forest. She is the crone aspect of the triple Goddess, no longer beholden to parent, husband, or child, but belonging only to herself and to the tribe.

An ancient woman of mystery and hidden knowledge, she guards crystals which have a power older and greater than Immortals. No matter if the walls of her castle are upright or crumbled, her inner serenity is her strength, and to those who are troubled, she offers a refuge. She also guards ancient secrets and possesses magical powers; older characters embody the dignity of the wise and aged woman, something we have tragically lost sight of in the modern world.

The three virgin goddesses are archetypes of women and their work: the Warrior Caste, the Worker Caste, and the Religious Caste. But no man is an island, and in this, women are the same as men. Women have jobs, and women also have families, and a large part of women's lives is influenced by the people they know. Hestia is more straightforward. She is also a virgin, but unlike Athena and Artemis, she never had any consorts or sexual relationships.

She is thought of as a living flame, associated with stability, permanence, prosperity and the hearth. She is depicted as an austere, fully robed mature woman. There are few stories about her myth but she obviously displays all the virtues of the Greek wife. There is duality, developed during patriarchal times, between the feminine home-world or Hestia and the masculine public-world or Agora. Increasingly the Agora has been considered the only "important" world, but in fact until recently most of human life, including education, entertainment and work centred on the Hestia.

We are the physical focal point of all the generations who have gone before us--and all those who will follow us, as our progeny. This focusing of life force through the family is a physical representation of the Holy Grail -- the container of the manifestation of the divine.

Another aspect of Hestia in the physical world is shown in the patterns in the structure of matter. Hestia is characterized as being immobile or in repose. Her balanced personality and equanimity reflect the characteristic of equilibrium. Dynamic equilibrium may also be expressed in living systems as homeostasis.

In physics, the structure of matter can be expressed mathematically. The condition of most-economical maximal stability is expressed in the geometrical form known as Vector Equilibrium. It underlies the structure of the atomic nucleus of all atoms, therefore all matter. It is the blueprint for the stabilization of matter from nothingness.

Vector Equilibrium is produced by connecting the centers of twelve circles clustered around one, also known as closest-packed spheres. This condition of maximal equilibration forms the basis for the way energy travels within the nuclei of atoms, and is therefore a very fundamental principle in the construction of the universe.

Curiously, this particular geometry is described in an ancient Hebrew text known as the *SEPHIR YETZIRAH*, or *THE BOOK OF FORMATION*. To the ancient Hebrew mystics, it was known as the Throne Chariot of Fire. It linked the manifest with the archetypal world. Its geometrical form was used in a meditation practice. It was a vehicle for moving consciousness from one plane to the next. Vector Equilibrium represents the balancing of

opposite factors. The Tarot Trump VII, THE CHARIOT depicts this vision of a divine Chariot.

The concept of balancing opposites is carried further by the fact that this card with its fiery symbolism is attributed to the astrological sign Cancer, a water sign. This places or locates it in the domestic realm of hearth and home. It also links Hestia with the virginal qualities of the moon (Cancer is ruled by the moon).

This path on the Tree of Life leads from Binah to Geburah, showing the influence of the Supernals descending through "the veil of Water (which is blood) upon the energy of man" and so inspiring it. On the Path of Return, this is one of the few paths which spans the great Void, known as The Abyss.

Since Hestia was the first-born of Cronos and Rhea--time and corporeal matter--she might be seen as that heat produced as a by-product of the creation. She is an expression of entropy. In the spectrum linking microcosm to macrocosm, she is the central fire in the warm-blooded human body, the home (the hearth), and the molten magma at the center of planet Earth.

Even the fire in the center of the Sun is analogous to these, inasmuch as it occupies a specific locus in space and time, and therefore shares its origin (if not its form) with them. These central fires warm and nourish and promote growth. It is intimately linked to the survival of the human species. Without our warm blood, we would never have developed our higher faculties.

It was a classical practice for the first and last tribute at any ritual to be offered to Hestia. She is truly the beginning and end for human consciousness. Without her receptive, containing 'space' there is no resting place for the atoms of the human body in the universe. I. Miller recounts the brain centers which are responsive during prayer and meditation in "Neurotheology 101" (2001).

"Brain scans of a large sampling of people lost in prayer or deep meditation reveal certain common neurological underpinnings which correlate with religious states from transcendence, to visions, to enlightenment and feelings of awe. Attention in the frontal lobe is indicated by activation in this area of the brain during meditation. When the parietal lobes quiet down, a person feels an expansive oneness with the universe or cosmic unity. For a mystical experience to occur, brain regions that orient us in space and mark the distinction between self and world must go quiet.

In order to feel that time, fear and self-consciousness have dissolved, certain brain circuits must be interrupted. Which ones? Activity in the amygdala, which monitors the environment for threats and registers fear, must be damped. Parietal-lobe circuits, which orient you in space and mark the sharp distinction between self and world, must go quiet. The orientation area requires sensory input to do its calculations. Intense meditation blocks the brain from forming a distinction between self and world.

Frontal- and temporal-lobe circuits, which mark time and generate self-awareness, must disengage. When this happens what we think of as our 'higher' functions of self hood appear briefly to drop out, dissolve, or be deleted from consciousness.

Our response to religious words is mediated at the juncture of three lobes (parietal, frontal and temporal) and governs reaction to language. The "voice of God" probably emanates from electrical activity in the temporal lobes, important to speech perception. Inner speech is interpreted as originating outside the self. Broca's area, responsible for speech production switches on. Stress can influence one's ability to determine origin of a voice. The right anterior cingulate turns on whether a stimulus originates in the environment or is an auditory hallucination.

Hyperarousal by sensory stimuli, such as drumming, dancing or incantations, can amplify emotions and send the system into hyperdrive. The equilibrium of the hippocampus is overwritten, inhibiting the flow of signals between neurons. Certain regions are then deprived of neuronal inputs. When the orientation center is isolated with ritual and liturgy or meditation, the boundaries of the self begin to dissolve.

Sacred images are generated by the lower temporal which also responds to ritual imagery and is facilitated by prayer and meditation. Religious emotions originate from the middle temporal lobe and are linked to emotional aspects of religious experience, such as joy and awe. Yet neural correlates don't mean that these experiences exist "only" in the brain or are merely illusory; they are associated with distinct neural activity. There is no way to distinguish if the brain causes these experiences, or is actually perceiving spiritual reality.

There are a wide variety of theories and mechanisms presented as influential spiritual transducers. Many of these biological systems work together in a variety of ways to create different experiences from deep meditation, to ecstatic trance, Near Death Experiences (NDEs) to Cosmic Consciousness. Cosmic Unity and a sense of Eternity (sacred or cosmic time) occurs when the parietal lobe quiets down; self-identity vanishes or expands to universal proportions. When the orientation area is deprived of neuronal input by gating from the hippocampus, sense of self expands.

The role of suspension of sense of orientation in 3 or 4 dimensions of spacetime is interesting in terms of the prevalence of systems of sacred geometry in mysticism to facilitate gestalt experiences. There are many ritualistic and meditational devices from Mandalas or Yantras, to Middle Pillar Exercise and the Diamond Body, to Merkabah mysticism which promote inner plane orientation. In parapsychology, such devices are known as Psychotronics and function as "time machines." This could imply that focusing or intense concentration on these internally-generated signals for orienting in sacred spacetime creates a paradoxical rebound which we feel as dissolving into cosmic consciousness, where beginning and end are cotemporaneous.

This may be why meditators are urged to remain motionless to achieved the desired state. Mystics say that if you move during meditation, the attention will be drawn back down into the body and worldly attachment. When there is no movement there is no external reference signal to orient in 3-space and no reason for this portion of the brain to activate. Intensive meditation can over-drive certain other brain areas and seemingly transport us to another universe. And just as, in terms of symmetry principles, a complete description of the Universe contains no information that serves to define a preferred position or direction in space, the local self dissolves in an omnidirectional expansion.

Sacred images are generated in the lower temporal lobe which also responds to ritualistic use of imagery and iconography. Religious emotions originate in the middle temporal lobe, generating bliss, awe, joy and other feelings of well-being or sense of Presence. Fear or awesomeness originates in the amygdala. The frontal lobes help us form concentrative trances through focusing, often employing any constant rhythmic stimulus to the CNS, such as drumming or mantras to facilitate concentration and drive the process." (I. Miller, 2001).

Occupations and preoccupations of Hestia include,

<p>agoraphobic Amish baker butler cook dietician domestic servant genealogist housewife househusband</p>	<p>homeowner humanist humanitarian laundress nutritionist Quaker sevadar spinster volunteer waitress</p>
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EMOTIONAL IMAGE

One of the three virgin goddess on Mt. Olympus, Hestia vowed to her brother Zeus that she would remain a virgin forever in a symbolic gesture of spiritual purity and integrity. Modern Hestia women can find romantic happiness with Apollo and Hermes. Because they do not crave attention, are most content at home and enjoy a simple life, Apollo men are their best match. They are attracted to women who are steady and balanced, and also like to be in control of the relationship. That's okay with Hestia, as long as she has a beautiful, peaceful home to maintain and inhabit. Apollo men will gladly provide her with this, as they are not only successful but also take after the god of architecture, symmetry and balance. Apollonian men and Hestian women are both at home with themselves, which offers great strength and stability in their pairing.

Meet a Hermes man and you will find that he can bring great joy to your life. Hermes men are childlike and lighthearted, two qualities that will help Hestia escape her more serious side. She is very much like Vesta, a virgin fire goddess of Rome. Her fire is concealed within her body; much like the fertility of Earth is concealed within the frozen ground of winter. Vesta is based on the Greek goddess Hestia, who does a fine job of representing this moon.

Myth tells us Vesta was given a choice of marriage between Apollo and Neptune but refused both. Zeus then granted her freedom. Vesta's temples are round with a central sacred fire; this fire was tended and maintained by young female initiates called vestals. These girls kept the eternal flame of the temples burning. The vestal virgins went through three phases of service; first, that of student, then as priestess, and finally as teacher. Vestals were by no means celibate, though their career as a vestal often ended when they had their first child.

Hestia helps us lead a balanced life by providing a sense of center. The holy precinct makes communication with the divine forces possible. Thus we can harmonize inner and outer reality through her power.

She was rarely personified in human form. Rather, her image is architectural; she is the hearth itself with the structure surrounding it and protecting it, also. Hestia provides places, nexus points and spatiality. She gives us gathering places, power places, and dwelling places. We might think of her calming energy when we "can't settle down." She is important psychologically because without her we couldn't focus on an image. She is not personified, therefore, but is the "place" where personifying occurs.

Stability of the inner self, or a sense of belonging are Hestian. As the goddess of locality, Hestia reminds us of the sacred nature of being rooted in a particular area and nation. The yearning to seek out our "roots," and the resurgence in nationalism and patriotism all show the relationship between psyche and geography. Every area has its natives or regional souls who are adapted for survival in the climatic conditions and prevailing cultural values. It is not possible to come to a universal citizenship without giving due respect to our genetic inheritance.

Hestia provides the focal point at the center of the world; and on a personal level we all tend to feel that we are the centers of our own special perspective on reality. We are each the center of our own Universe--and our consciousness projects that vision of the universe outward. When that projection "comes home to rest" we experience that reabsorption as the pure void, ground state of our being.

She is the sanctuary at the center, the holy ground, the magick circle. On an even deeper level, Hestia represents an archetypal image of the Self. This is represented in Crowley's Thoth Tarot on Trump VII as the circular image of the Holy Grail. This mandala symbol, or sacred circle, depicts a state of harmony, wholeness, and integration, much like the native American medicine wheel. It contains "blood," that which is simultaneously fire and water, a paradoxical union of opposites.

Hestia thus shows herself as a central aspect of psychic life--that of concentrating or focusing of one's energies. The concentrating of individual energies is shown by her virginal nature, which she shares with Athena and Artemis. It is a positive form of being self-centered. She is the light which makes the mysteries of life clear through understanding.

Keywords for Hestia include,

abdication	non-attachment
chastity	obedience
chores	plain
detached	poetic
drudgery	faithfulness
focus	simplicity
civic pride	perseverance
compassion	quiet

community action contentment existential situation friction holism home-schooling nexus modesty hope humility memory	agoraphobia (fear of open places) feminine introversion warm-hearted "give me my space" "a man's home is his castle" refreshment retreat sanctuary secession telepathy
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INTELLECTUAL IDEA

Holism is the philosophy or worldview permeated by Hestia consciousness. Holism is a healthy respect for the connectedness of things, the deep ecology of life and matter -- the realization that the whole is greater than the sum of its parts -- the seamless mind body connection, the identity of psyche and substance. It is the counterpoint to atomistic reductionism, to postmodern de-construction. In Science holism is the belief that complex systems may be understood only when viewed in their entirety. The view that parts of a system have significance mostly in virtue of their interrelations with other parts.

The concept of holism is at the center of far-reaching changes in various areas of philosophy in the second half of the 20th century. Holism in epistemology and the philosophy of mind is widespread among analytic philosophers subsequent to the work of the later Wittgenstein and to Quine's "Two Dogmas of Empiricism". Roughly speaking, the claim is that (a) for a person to have beliefs, a social, linguistic community is required and that (b) single beliefs have a meaning only within a whole system of beliefs. Furthermore, holism is discussed as an option in science, in particular in the interpretation of quantum physics.

Opting for holism in any of these areas has considerable consequences for our philosophical view of the world and ourselves. Holism in quantum physics is said to refute atomism, which has been predominant in modern philosophy of nature. Holism in epistemology and the philosophy of mind is seen as an alternative to what is known as the Cartesian tradition, which dominated modern thought down to logical empiricism. A good deal of research work has been done on holism in each of the mentioned areas. But there is as yet no research work that provides a critical overview of holism in general. That is to say: we lack research work that focuses on a general conception of holism, enquires into possible connections between different forms of holism, and evaluates the significance of such connections for contemporary philosophy.

Holism as an idea or philosophical concept is diametrically opposed to atomism. Where the atomist believes that any whole can be broken down or analyzed into its separate parts and the relationships between them, the holist maintains that the whole is primary and often greater than the sum of its parts. The atomist divides things up in order to know them better; the holist looks at things or systems in aggregate and argues that we can know more about them viewed as such, and better understand their nature and their purpose.

The early Greek atomism of Leucippus and Democritus (fifth century B.C.) was a forerunner of classical physics. According to their view, everything in the universe consists of indivisible, indestructible atoms of various kinds. Change is a rearrangement of these atoms. This kind of thinking was a reaction to the still earlier holism of Parmenides, who argued that at some primary level the world is a changeless unity. According to him, "All is One. Nor is it divisible, wherefore it is wholly continuous.... It is complete on every side like the mass of a rounded sphere."

In the seventeenth century, at the same time that classical physics gave renewed emphasis to atomism and reductionism, Spinoza developed a holistic philosophy reminiscent of Parmenides. According to Spinoza, all the differences and apparent divisions we see in the world are really only aspects of an underlying single substance, which he called God or nature. Based on pantheistic religious experience, this emphasis on an underlying unity is reflected in the mystical thinking of most major spiritual traditions. It also reflects developments in modern quantum field theory, which describes all existence as an excitation of the underlying quantum vacuum, as though all existing things were like ripples on a universal pond.

Hegel, too, had mystical visions of the unity of all things, on which he based his own holistic philosophy of nature and the state. Nature consists of one timeless, unified, rational and spiritual reality. Hegel's state is a quasi-mystical collective, an "invisible and higher reality," from which participating individuals derive their authentic identity, and to which they owe their loyalty and obedience. All modern collectivist political thinkers - including, of course, Karl Marx - stress some higher collective reality, the unity, the whole, the group, though nearly always at the cost of minimizing the importance of difference, the part, the individual. Against individualism, all emphasize the social whole or social forces that somehow possess a character and have a will of their own, over and above the characters and wills of individual members.

The twentieth century has seen a tentative movement toward holism in such diverse areas as politics, social thinking, psychology, management theory, and medicine. These have included the practical application of Marx's thinking in Communist and Socialist states, experiments in collective living, the rise of Gestalt psychology, systems theory, and concern with the whole person in alternative medicine. All these have been reactions against excessive individualism with its attendant alienation and fragmentation, and exhibit a commonsense appreciation of human beings' interdependency with one another and with the environment.

Where atomism was apparently legitimized by the sweeping successes of classical physics, holism found no such foundation in the hard sciences. It remained a change of emphasis rather than a new philosophical position. There were attempts to found it on the idea of organism in biology - the emergence of biological form and the cooperative relation between biological and ecological systems - but these, too, were ultimately reducible to simpler parts, their properties, and the relation between them. Even systems theory, although it emphasizes the complexity of aggregates, does so in terms of causal feedback loops between various constituent parts. It is only with quantum theory and the dependence of the very being or identity of quantum entities upon their contexts and relationships that a genuinely new, "deep" holism emerges.

In an online debate, sponsored by *Journal of Consciousness Studies*, in "Faster than Thought: Holism, Homogeneity and Temporal Coding," Thomas Metzinger, offers his chapter taken from the collection *Conscious Experience*.

The space of consciousness is the space of subjective experience. Since this is the space in which the world and we ourselves appear to ourselves on an experiential level, I will also call it the phenomenal space. Many people believe that our phenomenal space is also a representational space: In this space we represent a part of the world and of ourselves to ourselves. The phenomenal representata, i.e. the vehicles of representation bearing subjective content, I will henceforth call 'mental models', without trying to explicate this concept further at this point.

[1] Our conscious space - this is the basic idea - consists of mental models which are often embedded in each other. The largest of the mental models active in this space is our conscious 'model of reality' or 'model of the world'. This phenomenal model of the world contains all the other conscious mental models and its content is identical with the overall content of our conscious space.

But since we are beings who almost constantly fail to recognize our mental models as models,[2] our phenomenal space is characterized by an all-embracing naive realism, which we are incapable of transcending in standard situations. In this way, the totality of mental contents which fill this space form a structure that can be described from the external perspective of science as a self-referentially opaque phenomenal model of the world.

From the internal perspective of the system activating this model, however, this structure is quite simply subjectively experienced reality: the only reality existing for this system. One of the main challenges for any naturalistic theory of mind is that of providing us with a clear account of this transition: How does a model become this reality? Although I am not able to dissolve the highest-order wholeness of reality or of myself simply by a reversible act of will, I am perfectly able to perceive or even actively generate lower-order phenomenal wholes within the space which is held together by this highest-order property.

Perhaps this holistic character of reality, which is stronger than mere numerical identity and which cannot be transcended experientially, could be described as phenomenal coherence: Our conscious experience of reality is held together internally by a principle or a mechanism, which itself is subjectively inaccessible. This coherence of my reality has nothing to do with the concept of coherence in physics or logic. Rather, it is responsible for a succinct phenomenal holism, which we ought to take into account on the conceptual level.

Although a world made out of discrete, building block-like elements could well be a unity, it could never be a whole. But my world is not a toy world composed of little building blocks: it is also a living reality whose parts interact in a quasi-organic way (in the sense of the German concept *Erleben*). This concretely experienced unity of a diversity is accompanied by a multitude of dynamic part/whole relations. Thus, the additional phenomenological aspect of holism or wholeness which goes beyond mere unity results from the fact that the parts constituting the phenomenal model of reality are not elements, but parts of this reality. For this reason, if we want to understand the holistic character of

our phenomenal world, we will have to take its multi-levelled structure as the starting point of our investigation.

Another aspect is important in order to understand what else can be meant by 'wholeness'. Although this aspect is not at the centre of my discussion, we will repeatedly encounter it whenever we ask ourselves how a model can turn into a reality which is phenomenally present.[7] This second aspect consists in the fact that the experiential contents appearing in our conscious space are joined together into a holistic entity of the highest order, something we might call a global Gestalt, by spatial neighbouring relations and especially by temporal identity within an experienced present, i.e. by subjective simultaneity, by being given within a single psychological moment. This global Gestalt quality is necessary for the whole to become a reality.

The whole is always given to us in a single psychological moment, that is to say in the experienced present of a subjective Now. The phenomenal presence of the whole springs from this 'now', i.e. from the temporal identity of a diversity of experiential contents. What does this mean? It means that the holistic diversity of phenomenal contents becomes a coherent reality because there is an elementary 'window of presence'. One thing cannot be doubted from the first-person perspective: I always experience the wholeness of reality now. This yields a first phenomenological concept of conscious experience: Conscious experience is the phenomenal presence of an all-embracing whole.

There is also mental holism, and semantic holism. (Following discussion forthcoming in *The Routledge Encyclopedia of Philosophy*):

Mental (or semantic) holism is the doctrine that the identity of a belief content (or the meaning of a sentence that expresses it) is determined by its place in the web of beliefs or sentences comprising a whole theory or group of theories. It can be contrasted with two other views: atomism and molecularism. Molecularism characterizes meaning and content in terms of relatively small parts of the web in a way that allows many different theories to share those parts. For example, the meaning of 'chase' might be said by a molecularist to be try to catch. Atomism characterizes meaning and content in terms of none of the web; it says that sentences and beliefs have meaning or content independently of their relations to other sentences or beliefs.

One major motivation for holism has come from reflections on the natures of confirmation and learning. As Quine (1953) observed, claims about the world are confirmed not individually, but only in conjunction with theories of which they are a part. And typically, one cannot come to understand scientific claims without understanding a significant chunk of the theory of which they are a part. For example, in learning the Newtonian concepts of 'force', 'mass', kinetic energy' and 'momentum', one doesn't learn any definitions of these terms in terms that are understood beforehand, for there are no such definitions. Rather, these theoretical terms were all learned together in conjunction with procedures for solving problems.

The major problem with holism is that it threatens to make generalization in psychology virtually impossible. If the content of any state depends on all others, it would be extremely unlikely that any two believers would ever share a state with the same content. Moreover,

holism would appear to conflict with our ordinary conception of reasoning. What sentences one accepts influence what one infers. If I accept a sentence and then later reject it, I thereby change the inferential role of that sentence. So the meaning of what I accept wouldn't be the same as what I later reject. But then it would be difficult to understand on this view how one could rationally --or even irrationally!-- change one's mind. Agreement and translation are also problematic for much the same reason. Holists have responded (1) by proposing that we should think not in terms of "same/different" meaning but in terms of a gradient of similarity of meaning, (2) by proposing "two factor" theories or (3) by simply accepting the consequence that there is no real difference between changing meanings and changing beliefs.

Any particular type of holistic state will exist only rarely and transiently. In this respect, holistic mental states are like the states of computers. A total computer configuration as specified by the contents of every register in the internal memory and every cell on the hard disk will occur only rarely and transiently. There are deterministic laws of the evolution of total computer states, but they deal with such transient states. So psychological explanation will have to be seen by holists as like explanation of what computers do, in part a matter of fine grained laws of the evolution of systems, in part coarse-grained accounts of how the systems work that do not have the status of laws.

It has sometimes been suggested that quantum phenomena exhibit a characteristic holism or nonseparability, and that this distinguishes quantum from classical physics. One puzzling quantum phenomenon arises when one performs measurements of spin or polarization on certain separated quantum systems. The results of these measurements exhibit patterns of statistical correlation that resist traditional causal explanation.

Some have held that it is possible to understand these patterns as instances or consequences of quantum holism or nonseparability. Just what holism and nonseparability are supposed to be has not always been made clear, though, and each of these notions has been understood in different ways. Moreover, while some have taken holism and nonseparability to come to the same thing, others have thought it important to distinguish the two. Any evaluation of the significance of quantum holism and/or nonseparability must rest on a careful analysis of these notions.

Holism has often been taken as the thesis that the whole is more than the sum of its parts. Several different interpretations of this epigram prove relevant to physics, as we shall see. Here is a correspondingly vague initial statement of nonseparability: The state of the whole is not constituted by states of its parts. It is already apparent both that holism and nonseparability are related notions and that their exact relation needs to be clarified.

In one interpretation, holism is a methodological thesis, to the effect that the best way to study the behavior of a complex system is to treat it as a whole, and not merely to analyze the structure and behavior of its component parts. Alternatively, holism may be taken as a metaphysical thesis: There are some wholes whose natures are simply not determined by the nature of their parts. Methodological holism stands opposed to methodological reductionism, in physics as well as in other sciences. But it is a certain variety of metaphysical holism that is more closely related to nonseparability. What is at issue here is the extent to which the properties of the whole are determined by the properties of its

parts: property holism denies such determination, and thereby comes very close to a thesis of nonseparability.

By and large, a system in classical physics can be analyzed into parts, whose states and properties determine those of the whole they compose. But the state of a system in quantum mechanics resists such analysis. The quantum state of a system gives a specification of its probabilistic dispositions to display various properties on measurement. Quantum theory's most complete such specification is given by what is called a pure state.

Even when a compound system has a pure state, some of its subsystems may not have their own pure states. Emphasizing this characteristic of quantum mechanics, Schrödinger described such component subsystems as "entangled". Superficially, such entanglement of systems already demonstrates nonseparability. At a deeper level, it has been maintained that the puzzling statistics that arise from measurements on entangled quantum systems either demonstrate, or are explicable in terms of, holism or nonseparability rather than any problematic action at a distance.

As applied to physics, ontological holism is the thesis that there are physical objects that are not wholly composed of basic physical parts. Views of Bohr, Bohm and others may be interpreted as endorsing some version of this thesis. In no case is it claimed that any physical object has nonphysical parts. The idea is rather that some physical entities that we take to be wholly composed of a particular set of basic physical parts are in fact not so composed.

It was Bohr's (1934) view that one can meaningfully ascribe properties such as position or momentum to a quantum system only in the context of some well-defined experimental arrangement suitable for measuring the corresponding property. He used the expression 'quantum phenomenon' to describe what happens in such an arrangement. In his view, then, although a quantum phenomenon is purely physical, it is not composed of distinct happenings involving independently characterizable physical objects--the quantum system on the one hand, and the classical apparatus on the other. And even if the quantum system may be taken to exist outside the context of a quantum phenomenon, little or nothing can then be meaningfully said about its properties. It would therefore be a mistake to consider a quantum object to be an independently existing component part of the apparatus-object whole.

Bohm's (1980, 1993) reflections on quantum mechanics lead him to adopt a more general holism. He believed that not just quantum object and apparatus, but any collection of quantum objects by themselves, constitute an indivisible whole. This may be made precise in the context of Bohm's (1952) interpretation of quantum mechanics by noting that a complete specification of the state of the "undivided universe" requires not only a listing of all its constituent particles and their positions, but also of a field associated with the wave-function that guides their trajectories. If one assumes that the basic physical parts of the universe are just the particles it contains, then this establishes ontological holism in the context of Bohm's interpretation.

Holism is ecological in essence: Holism is an attempt at synthesis, rather than system of philosophy, per se. It doesn't challenge religion, but provides a worldview for preserving

this unique creation. Nature displays obvious interdependence expressed as reciprocity between long-associated organisms, both plant and animal. (Smuts, 1952).

Holism in Co-evolution means "Life forms are selected for, that have a common behavioural and physical characteristic; that is they conform to a COMMON PRINCIPLE defined by our material universe." This is the principle of compatibility, which leads one to a holistic conception, and is reflected in a behavioural strategy of the animal that ensures its perpetuation (survival).

Smuts recognised in the discoveries of the New Physics of 1926, an important HOLISTIC principle: "the structural character of matter indicates that it is also creative, not of its own stuff, but of the forms, (chemical) arrangements, and patterns which constitute all its value in the physical sphere Holism is sourced in the very nature of the elements. Smuts recognises what all religions call for: "how important a part moral discipline plays in the furtherance of the evolutionary holistic scheme." Holism influences our moral and ethical culture."

Much of what Darwin said has the holistic signature. There are repeated examples of this. To use his own words, he uses the term "struggle for existence" in a "metaphorical sense" "INCLUDING DEPENDENCE OF ONE BEING ON ANOTHER (equated partially with compatibility), and including not only the life of the individual, but success in leaving progeny" (equated with PERPETUITY). "Therefore, as more individuals are produced than can possibly survive, there must always be a struggle for existence (interaction). Interactors he called "enemies or COMPETITORS."

"Instead of the animistic, or the mechanistic, or the mathematical universe, we see the genetic, organic, holistic universe, in which the decline of the earlier physical patterns provides the opportunity for the emergence of the more advanced vital and rational patterns" (Smuts, 1952) Smuts sees the individual personality as central to Holism and as the most recent holistic expression that has emerged through evolution. He says, "To me the holistic aspect of the universe is fundamental, and appears to be the key position both for the science and the philosophy of the future. Charles Darwin observed that if any one species does not become modified and improved in a corresponding degree (coevolution) with its competitors, it will soon be exterminated." In Holism, this last principle differs from competition in that while becoming "modified and improved," interactions are altered to reduce the effect of interactors upon one another."

Darwin introduces three principles fundamental to Holism: [1] the idea of co-adaptations and "complex co-adaptations of structure between one organic being and another, which we see everywhere throughout nature" (coevolution) and [2] the idea that interactions are economic: "natural selection is continually trying to ECONOMISE in every part of the organisation." [3] The importance of interactions leads to the recognition that "each new variety or species, during the progress of its formation, will generally press hardest on its nearest kindred, and tend to exterminate them." A consequence of this interaction is the evolution of decreased interactions. "The truth of the principle, that the greatest amount of life can be supported by great diversification of structure, is seen under many circumstances." . . . "Natural selection will not produce absolute perfection," but does lead to improved varieties surviving."

"Holism simplifies life and causes a peaceful order. Natural selection in the holistic model acts upon the individual" . . . " Adaptation, when between organisms that are both evolving, leads to what appears like group selection, but is coadaptation (in its many guises). Smuts' Holism presents another revolution that shall dawn upon us. As the facts of the world-view of Holism unfold we should see immense changes in our dealings with and understanding of nature. Holism will encompass every aspect of modern technology and require that we reform our association with nature and make our activities more benign."

"Holism opens the door to religion. In holism there is the possibility for the unification of the religious, evolutionary, scientific and materialistic approaches to life. Holism requires a revolutionary change in attitudes from all sides to fit each as part of a whole system. With personality as the ultimate holistic expression, as believed by Smuts, its influence must penetrate our souls and extend out to the smallest life form!

Something holistic is at the heart of things and in the nature of this universe, which is not a mere chance or random assemblment of items. The detailed things derive most of their meaning, significance and functioning from the whole of which they are but parts. They are not mere parts but really members of wholes. Both as a metaphysical and as a scientific concept the whole is basic to an understanding of the world. And in sociology and religion this is more clearly the case. Relativity is only a halfway house to this more fundamental concept" (Smuts, 1952)." A similar sentiment was expressed by Aldos Leopold, the American Environmentalist, ". . . the problem we face is the extension of the social conscience from people to land. No important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections, and convictions."

It is Hestia who helps us focus, concentrate, and balance our thoughts. Just recall how soothing it can be to sit in front of a fireplace in a calm, reflective mood. Like the other Virgins, Artemis and Athena, Hestia has her own style of illumination. Many times, without her, it would be impossible to perceive any images in the depths of our psyche. Therefore, she is a key to insight -- to grasping the whole picture.

Focus, as a nexus point, creates heat and light in optics, as when we focus the sun's rays with a magnifying glass to start a fire. Not all of these images of burning and concentration are positive. Hestia has her own forms of pathology, such as "cabin fever," produced by long hours of isolation. Staying in one spot too long, we get "stir-crazy," agoraphobic, or depressed. Remember, Saturn is the father of Hestia. Depression which leads to brooding can lead to a meditative place, if the depression is deepened rather than avoided, or manically denied by "staying busy."

Sometimes thoughts can burn with obsessive intensity. In some varieties of obsessive/compulsive disorder, there is a cleaning mania. Yet, in order to express wholeness, our Holy Grail must contain pathological aspects, the light and the dark fuel which feeds the fire.

The idea of a sanitorium or healing center as a sanctuary fosters our ability to re-center ourselves away from the hubbub of urban life. A "center of activity" might be seen in the

eye of a storm, a volcanic eruption, or a hot bed of political intrigue. All centers are not tranquil.

That which lies in Hestia's center burns and smoulders. When we feel "burned-out" we need to readjust our focus, and frequently a change of location, retreat, or visit to a favored power spot in nature helps rejuvenate us. Sometimes we feel a need to remove ourselves from the whirl of activity at the center. When homelife gets hectic with many visitors and chores pile up, we long for a vacation. Or, if home is quiet, it can be our refuge, our soft cocoon to cushion us from the pressures of outer life.

On the psychological level, since Hestia is among the first-born of gods, she is a synthesis of their potencies, more fundamental than their later differentiation. She represents the fiery power of the true Self. Her center is "on fire" with life energy, which can manifest as volition, conscious and deliberate use of the will. True will comes from bringing the divine influences into an effective synthesis so that they come to a focal point within ourselves.

A receptive will means "willingness" to experience cosmic influences through the practice of reflective concentration of the mind. If we relax our bodies, and center our energies with one-pointed attention, we gain access to the fiery life-giving energy of the Cosmos. This requires a quiet mind--an emptying of the mind--and reflects in a personality which doesn't spend a lot of time in idle chatter. It indicates a psychological interiority or inwardness and inner creativity. Hestia renounces outer life in the greater world-at-large for a more fulfilling experience of her inner Self.

On the mundane level, the woman possessed by Hestia thinks that a woman's place is in the home (yes, they still exist). She inherently senses the divinity at the core of the situation, but renounces or sacrifices the possibility of experiencing herself through other gods in the field of archetypal manifestation.

This natural attitude is often contaminated by cultural chauvinism. A modern phenomenon, the househusband is coming to know Hestia in himself through the endless repetition of archetypal household chores. But they can be healing like the Zen prescription to "Chop wood; carry water." Many men find great peace in this lifestyle, which they never found in the work-a-day world. This knowledge of Hestia as the ground of being creates a sense of inner space in the psychic domain. It is a very private form of awareness--the simple life.

When attention is directed inward, there is little desire to be praised and lauded by society at large for our accomplishments. The solitude of household tasks is a special reward which goes beyond the pleasure of craftwork, sewing, cooking, etc. What one loses in public recognition is recaptured in the extra time available for introspection. One develops a sense of self-sufficiency.

With Hestia animating the background of household duties, there is a sense of dignity restored to this function which is too often seen as distasteful or menial. The daily "rounds" are part of this central life mystery. It is a primal part of us, fundamental to our well-being. It may hark back to our days as cave-dwellers when perhaps the single most

important function was that of keeping the fire going for the family unit--it meant warmth and nourishment at the most basic level.

Hestia and Hermes represent the Greek imagination of motion and place. On the foot of the big statue of Zeus in Olympia, Phydias represented the twelve Olympian gods. Between Helios, the sun and Selene, the moon, he arranged them in six couples: Zeus-Hera, Poseidon-Amphitrita, Hephaistos-Charis, Apollo-Artemis, Aphrodite-Eros and Hermes-Hestia

Hestia and Hermes are not husband and woman, nor brother and sister, nor mother and son either. They are neighbors, or better: friends. Where Hermes loiters is Hestia never far. Where Hestia stays, Hermes can appear at any moment. In its polarity, the couple Hestia-Hermes expresses the tension which is proper to the archaic representation of space. Space needs a center, a fix point from which directions and orientations can be defined. But space is also the locus of motion, and that implies the possibility of transitions, of passage from any point to any other.

Hestia and Hermes belong to very archaic, pre-hellenistic representations. Hestia is the hearth. In modern Greek, *estia* still means the hearth or the household. The name Hermes comes from *herma(x)*, *hermaion* or *hermaios lophos*, heap of stone. Before he became an Olympian god, Hermes was the personification of *lithoboly*, the gesture of throwing stones on tombs. He was the heap of stone or the wooden pole on a grave, but also the *phallos*. Hermes unites death and fertility in one figure.

Hestia and Hermes, personifications of the hearth and of the protecting grave are the gods of the domestic domain. They are also the symbols of the gestures of women and men and of their interplay. Through that interplay, the house becomes a unique place in the world, a *topos* in a *cosmos*. Hestia and Hermes allow us a glance into Greek domesticity. In their interplay, we can understand something of the Greek household and its works and of hospitality.

You live both on the superfcy of the soil, in the beautiful dwellings places of men and women, and you are filled with mutual *philía*", said a Homeric Hymn. Hestia and Hermes are the *epichthonian* gods, the gods of the dwelled soil. They are everywhere where people make fire, trace limits, build walls and a roof over their heads. Together, they are the gods of orientation and of the tracing of limits.

Further reading on Hestia may be found in

"Hestia: a Background of Psychological Focusing" in *FACING THE GODS*, James Hillman, Ed. (Barbara Kirksey, contributor).

"Hestia: Goddess of the Hearth: Notes on an oppressed Archetype," *SPRING JOURNAL* 1979, Stephanie A. Demetrakopoulos.

SPIRITUAL MYTH

In the Greek myth, Hestia is depicted as a female dependent of Zeus. Her place in the family is somewhat like that of a maiden aunt, and her specific job was to tend the divine

household fire. Her job was extremely important in ancient times since rekindling a fire could be a difficult task.

As a stay-at-home virgin, Hestia was perfect for the job, since an unmarried sister had few other commitments in the outside world. Hestia therefore stayed at the sacred hearth on Mt. Olympus, even though she donated her throne to Dionysus. She was much like the fabled Cinderella, in that she stayed calmly behind while the others went about their business. Cinderella got her prince; Hestia gets her Self, her wholeness.

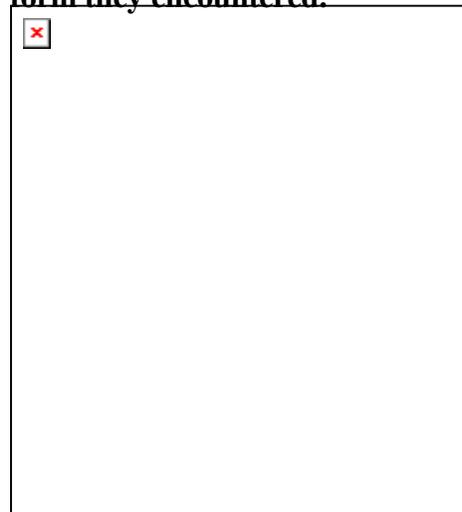
We might call Hestia's quiet reflectiveness "the yoga of contentment." When our desires are simple and we have the spiritual capacity to be thankful for what we do have, it makes it easier to truly "be in the now." Otherwise we yearn for bygone times, or some idealized future when supposedly everything will be "right" or "better" or "fixed". The now has to be at least OK for our consciousness to be there, and truly inhabit that place. Otherwise it flits off in imaginal flights of fancy to another time and place.

Hestia might be conceived of an "existential" goddess--one who accepts the human condition, and supports the state of consciousness that is neither riddled with toxic shame nor grandiose fantasies. These notions promote subhuman and superhuman attitudes, but Hestia is that union of opposites.

By being most fully human, she expresses an inherently divine quality within that form of being. She doesn't mood alter by pumping up her expectations or sink into an escapist depression. She sticks in the moment, which is a very spiritual position from which to operate--it is the place of balance and stability which has its own form of momentum in terms of driving consciousness. She accepts life on its own terms, and finds contentment, fulfillment, and wholeness within what is given in the moment. She is at home in the Void.

The conjunction of the card the Chariot and Hestia's meditation corresponds here with Merkaba mysticism --- meditation on the Chariot or Throne-Chariot of God. The mystics achieved a vision of this geometrical figure through meditation practice. This geometry was a 4-dimensional array of the holy letters on an octahedron within a cube; its geometrical reciprocal or dual is called Vector Equilibrium by Buckminster Fuller.

The Throne-Chariot is a geometrical picture of the creation or formation of the universe--an omniradiant event that continues to happen. Those who engaged in this meditation form were known as Merkaba visionaries. They sought ecstatic direct visionary experience of the Throne Chariot of God, yet stopped short of any kind of mystical union with the radiant form they encountered.



The Merkaba (pronounced with equal stress on each syllable. MER-KA-BA) is the activation of the "lightbody" vehicle. Everybody has various energy fields around their body. Merkaba activation techniques use intention to create a vehicle based on a sacred geometry design for a variety of purposes. The main purpose is to bring you to higher states of consciousness and awareness to fully embody the energy of unconditional love. Unconditional love is not an emotion, but a state of being.

In Hebrew mysticism, the *merkabah*, or *merkava*, was the chariot/throne of light that Elijah ascended into heaven. It was described as a "whirlwind of fire." Interestingly enough, the Hebrew word for "whirlwind" is purposely "misspelled" in this story, and preserved in many copies, when compared to other Hebrew references to whirlwinds. What was so special about this whirlwind? The Hebrew letters that spell the word Merkaba are Mem-Resh-Caph-Beth, from the root word Resh-Caph-Beth, meaning "to ride." The root word is the same as the root word for "cherub" a form of angel, for angels were believed to have these chariots of light to travel dimensions.

The Talmud (A Hebrew holy text) mentions the Merkaba in reference to Prince Judah who forbade mention of it in the text of the *Mishnah*. Many of these mystical teachings were shrouded in secrecy at the time, and many were told casual practice of such techniques would lead to madness or death. Later, the Kaballah itself was restricted to only married men over the age of forty.

Merkaba mysticism was thought to be a form of astral travel, or total body travel. Elijah was said to "ascend" to heaven, body and all, and never die. The exact techniques the ancient mystics used are unknown, though many assume it to combine prayer, meditation and some form of yogic posturing. Currently, many believe to have recovered the techniques through channeled sources, such as the *Keys of Enoch* by J.J. Hurtak.

There is some extant literature concerning Merkabah Mysticism in addition to the *SEPHIR YETZIRAH*. The most important of these works are the Greater Hekhaloth and the Lesser Hekhaloth. Rabbinical commentary concerning the secrets of the Throne Chariot also exists. The majority of these works were not designed for practical use by mystics. They described characteristic stages on the path to the vision of the Throne Chariot. They contain speculation rather than explicit instructions.

It is possible, however, to deduce certain requirements and procedures from these writings, which Miller and Miller did in *The Diamond Body* (1981):

1. The aspirant must be at least 30 years old before his study of mysticism should be initiated. This ensures grounding in the day-to-day life and reduces the chances that the immature seeker desires transcendent escape from reality.
2. Specific moral qualities were required of candidates before the mystics were willing to reveal their secret knowledge, or Gnosis. We might assume that these qualities would include those of importance in the Torah, or Law.
3. Twelve to forty days of ascetic practices, including fasting and prayer, preceded the soul's penetration to the revelation of the Throne.

4. Techniques for facilitating the journey included hymns and songs, the recitation of secret or holy names of God, and magical seals to protect the aspirant. These seals warded off danger from demons and hostile angels and allowed further access, much as a key unlocks a door.

5. The posture recommended during meditation is to sit in a low chair, bend forward until the head rests on the knees. This posture enhanced the ability to experience altered states of consciousness through changes in blood flow and subtle vibrations induced in the skeletal system by reciting god names. Breathing becomes shallow in this position.

6. The further one progresses upon the path, the greater the dangers of psychological disintegration. The worthiness of the soul is tested on every level--physical, emotional, intellectual, and spiritual. The Qabalistic practice of creating and dissolving images as containers for psychic forces acts as a protection against identification with, or deification of symbols. Such potent symbols of wholeness, such as the Tree of Life, are a danger in themselves as they promote the identification of the ego with the Self. If the aspirant were unworthy, he could penetrate no further. The angels guarding the gates would confuse his mind and disturb his senses, (which shouldn't be too difficult after 40 days of fasting). This interference could include hallucinations (rather than visionary experience), and psychosomatic manifestations of discomfort. In the Eastern systems of meditation, these phenomena are regarded as blocks to the flow of Kundalini up the spine.

7. Once the ecstatic state has been attained by the mystic, he ascends through what were variously described as seven heavens or chambers. The soul ascends toward its original home. Counting from the bottom of the Tree of Life upwards, this would include the spheres of Malkuth through Chesed.

8. At this point the soul receives its revelation. It is the vision of God as King on His Throne. This vision of God as King is the magical image of the sphere Chesed, #4 on the Tree of Life. It is below the Abyss, where visionary I-Thou imagination is still possible. The gulf between the soul and God is not bridged below the Abyss. This meditation did not aspire to even an understanding of the true nature of God, let alone a reunion of the soul with Godhead. It was ecstatic, not transcendent.

This mystic path provided perception of the phenomena of the Throne-Chariot, the awful mystery that surrounds God's majesty. A voice is heard to speak from the "Throne of Fire." It conveys the secret of heaven and earth to the aspirant. It gives him the names of Knowledge, or Gnosis.

Use of this Knowledge could be viewed as the aspirant's creation of the sphere Daath. Daath is unique among the Sephiroth on the ascent up the Tree. In order for the initiate to experience Daath, he is required to first create it. This is unlike the other spheres, which are a priori givens. Experience of the reciprocal view of the Diamond Body figure brings one back onto the Middle Pillar on the threshold of the Abyss.

In *The Diamond Body*, we find that,

Meditation is a procedure. Daath, as a knowledge-contact, is a quantum change induced through Grace. It is God's answer to the call of the aspirant, and cannot be induced through

effort alone. In creating a Daath state of consciousness, the aspirant has crossed 'an abyss' from a procedure to a grace.

In a classification of creative, psychedelic (mind-expanding), and unitive states, this development is best described as 'psychedelic.' The characteristic experience is a transient altered state of consciousness. This ecstasy includes the experience of loss of self, time, or space. There is an infusion of a special knowledge, and a purification of self.

The original Merkabah mystics did not aspire for this vision with intense love of God. They did not concern themselves with speculation concerning the immanence of God in matter, through the Shekinah. Their interest lay in the direct experiential process of contemplating their mandala-symbol until it took on a life of its own--a divine life. This entity projects a revelatory character.

But the immanence of God-in-matter is a philosophical issue open to speculation. The geometry of the Throne-Chariot or Diamond Body relates directly to the formation of matter. We might speculate that these geometrical representations of archetypal relationships have a great deal to do with fundamental patterns underlying all matter, even if they are only Ruachian models.

The figure of the Throne-Chariot (and its reciprocal, the Vector Equilibrium Matrix) and the basic blueprint for the formation of matter are not distinct and separate. This threshold of matter, or DAATH, the Invisible Sphere does disclose the minimum conceptual elements necessary to depict the spiritual order inherent in matter. There is no way to intellectually grasp Reality beyond the Abyss. Penetration into these realms requires intense devotion or love. For any information regarding these planes we must rely on the testimony of saints who have journeys in consciousness to these realms.

Knowledge (Gnosis or Daath) takes the soul to the uppermost reaches of the causal plane. This is the limit to the realm of the mind. There is neither mind nor matter across the Abyss. Here is the limit of the mind's ability to comprehend divine order conceptually. It is the emptying out of symbolic meaning in preparation for direct experience of the Reality of God, through Union.

Several graphic depictions of the descriptions of the Throne-Chariot given in the SEPHIR YETZIRAH have been developed through the years by Jews and occultists.

A group known as the Chariot of Fire from Los Angeles has used the information to depict a system in which all the paths are compacted onto an octahedron. In this arrangement, the seven double letters are paths connecting the six spheres which correspond to the cardinal directions, above and below, and the central Inner Court. This Inner Court is comprised of the three Mother letters--Aleph, Mem, and Shin--plus the nexus point which is composed of Aleph/Tau.

In his book, THE TAROT (1947), Paul Foster Case developed an array which shows closer harmony with the closest-packed spheres of the diamond structure. Here the paths are dispersed over the octahedron and its containing cube. It is important to include both the octahedron and the cube in the modeling. When both are visualized, the figure has the ability

to reproduce itself indefinitely. It generates and regenerates itself mathematically, like a fractal. It projects outward or inward in an infinite geometrical progression.

There is an infinite series of octahedrons within cubes within octahedrons within cubes. This is another way of viewing the matrix structure which has been described elsewhere as the Vector Equilibrium Matrix, and it shares its essence with the qabalistic Tree of Life geometry.

In hermetic magic, a lightbody vehicle, or body of light, is activated to do more advanced magical work. The Mer-Ka-Ba is the vehicle of Light mentioned in the Bible by Ezekiel. Some say in Egyptian, "Mer" means Light. "Ka" means Spirit. "Ba" means Body or Reality. The word Merkabah is Hebrew, meaning "chariot" or "vehicle", from the Hebrew root *resh-kaf-bet* meaning "to ride". Merkabah mysticism ("*ma`aseh ha-merkabah*") is a branch of Jewish Kabbalah. It refers to Ezekiel's vision. (see Gershom Scholem "Kabbalah" page 373). From Aryeh Kaplan "*Meditation and Kabbalah*" page 19, we hear:

"The word Merkava comes from the root Rakhav meaning "to ride", and hence means a "chariot" or "riding vehicle". In general, the concept of riding involves travelling and leaving one's natural place. When the Bible says that God "rides", it means that He leaves His natural state where He is absolutely unknowable and inconceivable, and allows Himself to be visualised by the prophets. One who "sees" God in this manner is said to experience a Merkava vision. The term Maaseh Merkava or "workings of the Merkava" refers to the setting up of a Merkava, that is, attaining a state where a Merkava vision can be attained. From the context in which this term is used in the Kabbalah texts, it is obvious that Maaseh Merkava refers to the meditative techniques involved in attaining this mystical experience."

Most modern students of Qabala are familiar with the standard 2-dimensional representation of the Tree, which is drawn "flat," even though the circles are always conceived of as spheres. There is also a long tradition of a so-called 4-dimensional Tree of Life diagram, based on *The Book of Formation -- Sephir Yetzirah*. This geometrical figure consists of two interfacing pyramids surrounding a central core, within an enclosing cube.

This octahedron-within-a-cube happens to be the crystal structure of diamond, a face-centered-cubic lattice. Recalling that Abraham is also the patriarch of the Moslems, it is interesting to note reference to a spiritual body, a "diamond body", in the writing of Shaikh Amad Ahsa'i from the 13th century. Speaking of a substance akin to that of the medieval Philosopher's Stone, he equated the "diamond body" with the "Resurrection Body" of the faithful believer in the Paradise of the future Aeon.

For the Qabalists, meditation on this figure provided a mystical body as a vehicle for consciousness in imaginal space. This diamond body was used during meditation to enter the inner court of Divinity, symbolized by the center of the figure. Here the Beginning and End of time are co-temporaneous, space ceases to be a hindrance, and the mystic beheld the ecstatic vision of the Lord on His Throne. The geometry was a "gateway" to another dimension of experience.

This Alpha-Omega point has all the physical qualities of Vector Equilibrium. The ancient meditation practice was known as Merkabah mysticism, and those who practiced it called themselves, "Riders in the Chariot." They claimed to see into the future. This insinuates

that the figure is a "vehicle" for moving consciousness through imaginal time and space. It seems to be a metaphysical "time machine," or inter-dimensional gateway.

As in most design or mandala meditations, the aspirant pictures him or herself at the center of the figure through visualization, contemplation, and identification. Through this process of centering, these mystics came to know themselves and God. Perhaps they learned, as Fuller later discovered, of the unusual anomalous conditions of perfect equilibrium. This meditation provided a specific technique for escaping from time. Its realization meant instantaneous enlightenment, a paradoxical leap out of Time. It yields transcendence.

Occultist, Paul Foster Case published an array of this type in his book, *The Tarot* (1947). Aware of the ancient mystic practice, he included the figure in his study of Qabala, calling it alternately the Key of the Cosmos and Numbers, or the Cube of Space. Again, we have the form of the octahedron-within-a-cube. Vector Equilibrium and the Cube of Space are mathematical duals, or reciprocals of one another. They "jitterbug" back and forth as the figure grows outward to fill all space. They are two ways of looking at the same geometrical phenomena.

Case pointed out that its construction was based on the six-pointed Star of David, (or Shield of David), also known as "The Star of the Macrocosm." His descriptors of zero as a sacred, empty, consciousness field reiterate the qualities of Vector Equilibrium.

Zero is a symbol of the absence of quality, quantity, or mass. Thus it denotes absolute freedom from every limitation whatever. It is a sign of the infinite and eternal Conscious Energy, itself No-Thing, though manifest in everything. It is That which was, is, and shall be forever; but it is nothing we can name. Boundless infinitely potential, living light, it is the rootless root of all things, of all activities, of all modes of consciousness. In it are included all imaginable and unimaginable possibilities, but it transcends them all. The Qabalists call it: (a) No-Thing; (b) The Boundless; (c) Limitless Light. Pure Conscious Energy, above and beyond thought, to us it is Superconsciousness.

With their fascination for completely regular figures, the Greeks devised a way of establishing XYZ coordinates within a cube. Our science and method of orientation has been stuck with that model ever since. However, nature's own most economical coordination is in triangles and tetrahedra, rather than squares or cubes. Vector Equilibrium is more in line with modern Quantum Mechanical models than the Newtonian XYZ. It expresses more degrees of freedom.

So, close examination of the underlying geometry of the Tree of Life reveals that the ancients were not lacking a very deep intuitive awareness of the true structure of matter and the universe. The underlying geometrical matrix of the multi-dimensional Tree is, in fact, Vector Equilibrium.

CULTURAL COUNTERPARTS

Vesta (Roman)

Isis, as Virgin (Egyptian)

Xiuhtecutli (Aztec fire & hearth deity)

Other names: All virgin Goddesses including the Christian Virgin Mary; Semetic Lilith; Roman Diana; Durga; Greek Athena Hestia/Vesta and Artemis; Gnostic Sophia; Celtic Arianrod and Brigit

Brigit, another virginal goddess, is considered Goddess of Fire, Patroness of smithcraft, poetry, and healing. She bestows her blessings on any woman about to be married or handfasted ("Bride" is derived from Brigit). On Brigit's Day, in honor of the Irish Goddess Brigit, 19 Priestesses (no men were allowed) kept a perpetual flame burning in her honor.

Symbols: Unseeded ground; unsprouted seed; barren winter landscape; the unplowed field; The Maiden; Sleeping Goddess; Yin; Sleeping Beauty

Attributes: Intuitiveness; Female energy; Receiving information from within;

CONTEMPORARY EXAMPLE

Those who speak for Hestia today might include Betty Furness, consumer advocate; or Heloise, of household-hint fame. She is also exemplified by some attitudes of women in the "Moral Majority." She is alive in the thousands of voiceless volunteers who keep our homes and communities running smoothly. Most of her examples are neither well-known nor vocal, as this is not their temperament. They seek to serve in a quiet, selfless manner. An example of this archetype may have been the voice of the housewife poet, Silvia Plath.

Modern devotees of spiritual disciplines offer themselves for seva or selfless service, thereby building and expressing compassion. Other serve humanity through community service.

DIALOGUE WITH HESTIA

Dialogue with Hestia through meditation. At least a 20 minute session of quiet repetition of a word, or calm breathing can put you in touch with your own center. Hestia's is the still, small voice, so must be very quiet to hear it.

HESTIA IN YOUR LIFE

- 1. How do you feel about the repetitious duties of household management? Do you give them the honor and value they deserve?**
- 2. Can you derive a quiet, inner satisfaction from the little chores or service you offer to another. Do you crave their gratitude or offer it simply from love and warmth?**
- 3. Do you have a special place, outside or inside in your imagination, where you can center and ground yourself? Describe this experience and how it feels.**
- 4. Describe the fires smouldering in your deep center. What do they connect you to?**
- 5. Have you ever experienced a depression which led to renewal of your spiritual volition? or drove you to seek solace within through meditation or experiential psychotherapy?**

6. The original meaning of Virgin is whole-in-herself. Describe a period when you felt a connection with this virginal sense of wholeness during a period of quiet reflection. Did you pause to notice it as such at the time, or only upon reflection?

7. Imagine practicing "the yoga of contentment." How would you describe your present situation if you looked at it from the perspective of fulfillment as a "just so story." What complaints and disappointments would be eliminated from your internal self talk. What aspects of life would you now notice as simple blessings?

8. Do a quick reality check on your current situation in regard to your idealized hopes and dreams, and daydreams. What does living in the now mean for you in terms of contentment with your existential situation?

9. It has been said that we all serve somebody. Whom do you serve, and in what capacity? Who do you serve spiritually?

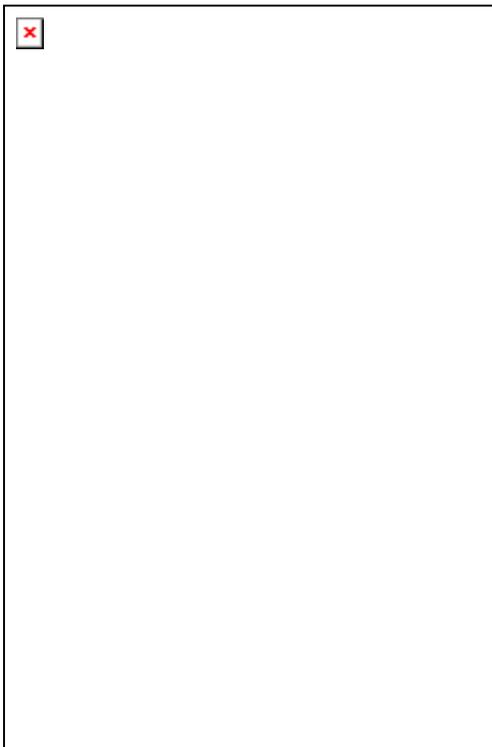
10. What does compassion mean to you? What experiences led to an increase in your sense of compassion? What humanitarian causes do you support and how?

11. What mask (persona) are you presenting to the world? What emotional reactions are you hiding with "detachment"? What contradictions and tensions are you struggling to maintain control over? Where have you experienced recent victory or success in your life? What progress are you making in testing your abilities in the outer world and in the inner world?

*Mighty Demeter, the seed's cycle you know;
From your tears of deep mourning, spring's flowers grow.*

CHAPTER VIII: LUST or STRENGTH

DEMETER/PERSEPHONE



The story of the abduction of Demeter's daughter, Persephone, and her subsequent resurrection and return, fascinated the ancient world for more than 2,000 years. This mystery religion was celebrated at the meadow in Eleusis where the original rape occurred, continuing the Egyptian tradition of promising life after death to initiates of the cult.

The major motifs of this myth-theme include pristine virginity, betrayal, rape, lust, abduction, depression, and reunion of the mother and daughter. The initiate to whom these mysteries were revealed underwent a profound spiritual transformation. The experience was so awesome that no one ever broke their vow of silence concerning the climax of the rite. This vital element has been open to philosophical speculation ever since, but it is strongly suspected to involve a psychedelic brew called the *kykeon*.

This ceremonial drink was used to produce the visionary experience known as *epoptia*. The real glittering vessel is the body of light and the *kykeon* is light. The inner child must accept becoming Queen in this story of feminine empowerment, and overcoming the fear of being consumed by the unconscious, much as the heroine in the fairytale *Alice In Wonderland*, who innocently partakes mind-altering substances.

Demeter is the earthiest variation of the Mediterranean Great Goddess. She represents not only fertility, but also brought the gift of agriculture to ancient Greece. Therefore, Demeter is considered the fertile, or cultivated soil while Persephone is the virgin soil. The transition from hunting and gathering to cultivation of crops such as corn and wheat marked a dramatic change in early civilizations. Persephone, as Kore or Virgin, is also our inner child, our divine child that lives half in the light, half in the subconscious dark. Through this child we are subject to fears we don't understand, trapped and raped by life, and expected to master it without any help.

The establishment of the Eleusinian Mysteries is related in the HOMERIC HYMN TO DEMETER. After the abduction of her daughter by Hades, Lord of the Underworld, the mourning Demeter traveled to Eleusis (near Athens), and took refuge by the Well of the Maidens. She demanded that the local inhabitants build her a sanctuary there. After she was reunited with her daughter she revealed the rites and began teaching her mysteries, including the cultivation of wheat.

The early history of the cult reports two types of initiations. All initiations prepare the aspirant to receive the vision of light, to release subconscious fears and master them. One was concerned with the reunion of the goddesses; the other concerned the possibility of man's immortalization. The Great Goddess has always been considered able to grant immortality to humans, and initiates experienced revelations which assured the soul a blissful existence after death.

Mircea Eliade recounts how the symbolic death of Persephone had great consequences for mankind: "As the result of it, an Olympian and benevolent goddess temporarily inhabited the kingdom of the dead. She had annulled the unbridgeable distance between Hades and Olympus. Mediatrix between the two divine world, she could thereafter intervene in the destiny of mortals."

Archaeologists have established that the colonization of Eleusis occurred in the fifteenth century B.C. Celebrants came there regularly for the next 2,000 years. Their footprints can still be seen where they wore grooves in the stones by dancing around the well. Because of social and cultural changes during this period, the Mysteries altered somewhat over time, but the basic message remained the same.

Psychologically, it means that down times are part of the natural cycle. Depressions which feel like death, and feel like we have one foot in each world must simply be endured. Persephone endured passively, embracing this feeling by willingly deepening it even further. It is not just time-out from real life, but an archetypal Way of Being which is just as real as extroverted life.

Plumbing the depths means a genuine transformative experience, and naturally induces fears and shrinking. The power of death transfixes us--it is fear of death, fear of dying which grips us and it is mad to resist. We can let go of our negative evaluation of "underworld" experience, become one with the mystery and undergo the shamanic initiation it implies, becoming at home in the underworld.

Demeter's pathology is extreme grief, mourning, endless suffering of overwhelming loss which overwhelms all life-giving, nurturing energy. It is felt as a loss of self that is also a self-indulgence if it never ceases. A mother's rage and grief can wound her children. Her animus may be enslaved by patriarchy which she grudgingly serves. If she is not free of her own father-complex, how can she protect her children from this ravaging masculine force? So she insists on a false image of control, perfectionism and an idealization of family roles. She is passive-aggressive, but appears docile because of the severe degree of repression.

PHYSICAL FORM

Demeter is clearly an earth-mother, like Gaia, the original Greek progenitor. She is represented physically as the seed (Persephone) which is planted beneath the earth (abduction to the underworld) and returned once again in the spring, with the sprouting of the grain. But she is also so much more than an agricultural metaphor.

The rape of Persephone by Hades is one of the most celebrated myths. On account of Persephone's relationship with Hades we have a fallow winter for 1/3 of the year, representing that time she is in the underworld. The ancient Greeks had a habit of storing grain in great earthen jars in large holes in the ground as a natural form of refrigeration.

Her abduction by Hades, or forceful removal to the dark underworld, also symbolizes the fact that we are asleep and unconscious for 1/3 of the time each day. Persephone is dragged daily under the surface of the earth (day-world), below the threshold of consciousness, into the profound depths of the unconscious. Sleep is like a "little death," and dreams come from the perspective of soul or psyche, not ego.

Hades' realm of darkness and death is that of our instinctive memories and bondage to the collective past of mankind. He rules over the deepest levels of the unconscious of mankind. Persephone falls into a state of identification, symbolized by her marriage, with this substratum of human consciousness. Through the violent metaphor of rape, she is

permanently altered from being merely maiden, (Demeter's daughter), into Hades' wife, austere and awesome Queen of the Underworld.

Psyche's final task, stealing some of the beauty of Persephone, means finding the beauty of death as the counterpart to birth and the life force. They are natural complements and to appreciate that assuages some of the agony of grief and bereavement which, paradoxically, also separate one from active life. Psyche's descent into Hades is like a shamanic journey into the underworld. It heralds a later resurrection, or rebirth. The descent may come through the death of a beloved, sucking us into the underworld. Locked in this phase, we instinctively or compulsively retreat, withdraw, or curb our availability to others.

It may result from grief, betrayal, physical molestation, or depression, or addiction. Chemical addictions force one into congress with the underworld, the criminal element, reprehensible though it may be. In particular, intravenous drug use is a thinly-veiled sexual substitute with predictable gratification. Characteristically, because she suffers so deeply, Psyche becomes suicidal. Yet, this underworld is an immortal realm. In the dark descent into ourselves, the challenge is to remain mindful and conscious of the experience.

In the myth, Zeus planned this entire affair by offering Persephone to his brother Hades. He conspired with Gaea and Hekate to bring it about and they betrayed her trust. But when Zeus saw how distraught Demeter became at the loss of her daughter, he intervened. His heart was softened at the sight of his powerful sister's depression and lack of functionality.

Zeus sent Hermes to retrieve Persephone, and she had a blissful reunion with her mother. Because she had eaten several pomegranate seeds while in Hades, she is compelled to return for a portion of each year. This cyclic "burial and resurrection" turns the whole process into a meaningful cyclic ritual which indicates that the individualized consciousness has assimilated the experience of man's common roots, the instincts of the collective unconscious, but returns to the day world at the summons of the Spirit.

Demeter/Persephone expresses the mystery of mother and daughters--*MY MOTHER, MY SELF*--which is a union of sames. Demeter is Persephone in her renascent form. Modern women experience this force in the continuity of generations. The matrilinear line extends back to one's grandmother and mother, and forward in one's daughters. It isn't quite the same for the birth of sons; they are distinctly other, as our fathers are. There is an essential blood-bond between female members of a family who share the mystery of the generation of life from their own substance. Thus, a woman's essential self is reborn in her daughter, and the paradox of the eternal Virgin-Mother lives on.

The Value of Biodiversity, David Takacs, and *Value in Diversity*, by Richard Leakey and Roger Lewin state that the causes of diversity are as diverse as diversity itself. A first factor is that the forest has retreated into many separate sanctuaries during drier spells in ice ages and then been repeatedly reintegrated again. Another factor for diversity is the rise of forest to climax in an environment of damage through storm and fire creating a fractal dynamic of destruction and regeneration over evolutionary time-scales. Diversity minimizes crises caused when a pathogen mounts an attack on a dominant species (*New Scientist*, 23 March 1996, 38).

Nostradamus predicted: "*The great famine which I sense approaching will often turn up (in various places) then become universal. It will be so vast and long-lasting that people will grab roots from the trees and children from the breast.*" Nostradamus C1 Q67 (Hogue 213).

The next few decades will witness a wildlife holocaust, a great extinction numbered among the five most serious threats to life in earth during its entire history. By the turn of the millennium, over a million kinds of animals, plants and fungi are expected to be driven to extinction; by the year 2050, half of all the species alive today could be lost forever. The disaster threatens to surpass the mass extinction of 65 million years ago when the dinosaurs disappeared. The causes are diverse, but they all come down to human impact without foresight. Overhunting and overfishing, pollution and the trade in wildlife all play a part. But by far the greatest cause of the extinctions is the destruction of wild habitats for farming, fuel, industry and a host of other uses.

The world's tropical rainforests, which contain at least half the world's species, are failing fast: little more than half of their original expanse still remains, and an area as big as Romania is cleared each year. The temperate forests are likewise under siege in Siberia. Half the world's wetlands - other abundant habitats - have been drained or developed and species-rich coral reefs are being destroyed throughout the earth's warmer seas. Species are now becoming extinct at 25,000 times the natural rate (Lean 127). Currently there is a species being lost about every 12 minutes and the rate is steadily increasing as remaining areas of high diversity become fractured. The loss of one plant can cause the loss of as many as 30 kinds of animals and insects which depend upon it, so the whole process has catastrophic potentiality.

Even the loss of a single species can be a tragedy, because each form of life is a storehouse of irreplaceable substances. Every civilization has been rooted in the wealth of nature the local environment has provided. The collection of seeds and domestication of wild animals made the first agriculture and shepherding of flocks possible. Selective breeding has subsequently made our domesticated and food species more productive; and abundant natural resources enabled the agricultural and urban social revolutions to take off, later leading to the industrial revolution whose consequences so effect biodiversity today. Despite these changes, genetic resources, taken from the wild, still sustain modern societies, providing medicines, food and raw materials for industry. They also form the foundation resource for genetic technologies of the future. Without biodiversity, biotechnology is a destitute science.

Wasting the Sheaf of Demeter: The Dwindling Diversity of Food. The health of the world's food resources and harvest productivity is even more dependent on genetic resources. We are utterly dependent on our domesticated food plants and animals for our own survival. Many of these are dwindling in diversity as diverse local types of produce give way to large industrial productions for world markets. The number of different species being used is dropping rapidly and even more worrying the genetic diversity of even our major staples is being reduced rapidly by major production of low-diversity and even frankly monoclonal genetically-engineered varieties. "*Just three species - wheat, rice and maize - provide half the world's food; another four - potato, barley, sweet potato and cassava - bring the total to three quarters. Such overwhelming dependence on a few crops is dangerous; disease can spread*

rapidly through monocultures - as it did through the Irish potato harvest in the 1840s, causing a fifth of the country's people to die" (Lean et. al. 127).

Crops need to be given new protection every few years, because pests and disease develop ways around their existing defenses, requiring one to interbreed them with other strains, often wild ones to introduce new traits. It is believed that the evolutionary race between parasite and host is a principal reason for sexuality in higher organisms. *"In the 1960s an epidemic of the wheat disease, stripe rust, struck the US; the state of Montana repeatedly lost a third of its harvest. Genes from a wild wheat from Turkey saved the situation, providing resistance to this and 50 other diseases. In 1970 an even more virulent plague spread by up to 150 kilometers a day across the American corn belt. It devastated a sixth of the maize crop, wiping out half the harvest of some Southern states, at a cost of some \$2 billion" (Lean 127).*

Nevertheless modern industrial agricultural and forestry processes are depending ever more recklessly on monoclonal genetically-engineered varieties. Indonesia plans to plant 250,000 hectares of forest in genetically-engineered monoclonal teak in a single operation. The burning question is where the next generation of such trees will come from once they succumb to parasite adaption if the wild areas containing the genetic diversity from which these varieties come are converted to plantation use. Such short-term thinking could become an evolutionary terminal condition for humankind.

Maize has been particularly vulnerable to such disasters, as inbreeding has given it an almost uniform genetic pattern - and new genes from wild varieties have been urgently needed. Two ancestors of the plant were found in Mexico in the late 1970s; they can confer resistance to seven of the domestic crop's major diseases, and can turn it into a perennial crop, allowing it to spring up every year like grass, without resowing. These maizes have been called the botanical find of the century; ominously, just a few stalks of them were discovered in a tiny area now threatened with destruction, (Lean et. al. 127).

The diversity of many of our essential food plants is thus at best marginally conserved. The growing of commercial hybrid stocks of low diversity over vast productive areas of the earth's surface has a catastrophic effect on the diversity of the very species on which we depend. The original ecosystemic variety of locally-adapted types is lost as entire populations convert to only a few types. Disease resistance is often only later to be discovered to be missing in all but one or two of the cultivated varieties. Wild varieties in their original habitat are frequently under threat. Plant patenting drives diversity down further, placing legal constraints on free propagation, reducing the entire world market to a few patented varieties, which often have low biodiversity because they are developed from a few highly selected individuals, or even a single parent.

Twenty years ago a group of nine leading American biologists warned that destruction of wildlife habitats and their genetic and species diversity was a threat to civilization "second only to thermonuclear war". Since then their concerns have largely gone unheeded but their dark prophecies are being fulfilled. Life on earth may, at best, take millions of years to recover. The forest is burning 34% faster and the seas are being overfished. In the next 25 years, if we don't take decisive action the greatest species extinction for 200 million years will in all probability occur. An irreversible loss which will severely compromise both the future prospects of humanity and the future evolutionary potential of the biosphere, for

which we will be condemned by our descendents for untold centuries to come. There is still time to turn the tide of ignorance and inertia for the future of life.

The value of biodiversity is that it provides us with a more robust biosphere more likely to sustain humanity long into the evolutionary future. Our long-term survival prospects are intimately connected to the richness of biodiversity. The more we reduce it to a fragile skeleton the greater the danger we will ourselves expire as a species through even a mild disruption to the earthly environment. The better integrated our food plants remain with their natural sources of biodiversity the more likely we will continue to have them to depend on in future evolutionary time scales. The more diverse the more adaptable to unforeseen stress.

Occupations and preoccupations for Demeter/Persephone include,

baker	kidnapper (Hades)
daughter	hostage
farmer	nurse
dancer	victim
foster parent	lion-tamer
florist	mother
gardener	ingenue
governess	

EMOTIONAL IMAGE

The Demeter woman is an earthy, feeling type of woman. She is emotional and perceives time as circular or cyclic. Her experience of time is continuous. Therefore, she compares the present with past events so that their emotional content is revealed. Time itself seems less important to her than the emotional content of daily experience.

She has a more positive mothering capacity than the other goddesses because of her ability to be emotionally responsive to others. She has a warm personality and expresses love easily. She is not the emotionally unavailable Ice Queen, nor the raging Dragon Lady. But her pathology can come through the roles of the "Saint Mom," or Sick Mother, who bind their children to themselves incestuously through guilt or other emotions.

Either a man or woman can express the Demetrian qualities. She nurtures; she is acceptant and has the ability to endure despite great pain and suffering. It is her nature to give of herself to excess, and even though it may be a codependent pattern, her motivation is love.

Her involvement in eternal cycles even gives her the capacity to cope with death (Hades). She is strongly empathetic. Since she is sympathetic, she can frequently be a comfort to those around her. She is an excellent nurse, whether baby-sitting her grandchild, tending the wounded, distraught individual, or perhaps as counselor or psychotherapist.

On the negative side, she may be possessed by the spirit of motherhood, tying others to her to fulfill her compulsive need. They must always play the "child" to her "mother." The relationship is role-bound. This of course impairs the growth potential of both. Those who receive from her bear an ever-increasing burden of guilt from a debt that can never be

repaid. In reality, her over-emotional nature is feeding off the children with whom she refuses to break off her identification.

In this respect she is like Sekmet, the Egyptian child-devouring lioness. In the tarot trump STRENGTH this lion is the instinctual nature which becomes tamed by feminine spirit. Love ("smother-love") can be devouring and its primal nature requires a degree of humanizing to tame its destructive element. Patience, fortitude, faith, and strength are distilled from the raw life force. When we can observe our destructive patterns accurately and actively change the patterns of codependence, we change the result, thus taming the lion and becoming a moral force.

True strength is spiritual, not just physical, and we must learn to use this strength of spirit to sustain ourselves in times of trouble, to lift ourselves above wordly turmoil. We must realize that spiritual nurturance is always there if we just reach for heavenly comfort.

In the myth, when Hades rapes Persephone, he destroys her lifestyle and her naive psychological state. It derives its strength from innocence and the life and growth promoting energy of her mother. This state mandates that she is raped out of the unconscious identification with her mother to find her own individuality, to find and express her inner passions and reconcile with her primal instincts. In doing so, she becomes a survivor with fortitude -- the mixture of strength, patience and courage.

The paradox is that this symbolic rape is either creative or destructive. When it is literalized in a life, it is certainly destructive, usually taking several years to resolve. She is violated by the cold, brutal, pathological forces which lie in the very pit of human existence--the dark side. Who wants to think about the brutal necessity of death when cavorting with one's friends in a flowery meadow on a beautiful spring day? In a sense, we would all like to remain close to the nurturing bosom of the mother. But the transpersonal force of life (Zeus) and material reality (Gaea) conspire to initiate the process of transformation.

Yet, the mythic meaning of Hades is not only "bad." Hades is also the depths of the soul which are certainly sacred. We need not be physically raped in order to come into close association with Persephone's essence. "Initiation" contains images of being seized or suddenly rapt away into a different state of consciousness. We therefore partake of Persephone's initiation into the underworld life through our sudden depressions, our revulsions, or passionate hatreds.

When we feel cold and numb, or lifeless, or would like to flee but cannot, we experience aspects of her plight. Initiation to the underworld transforms our relation to it. It may come through the inescapable clutches of a Demon Lover, such as addiction, or codependence.

We resist being sucked down into the underworld life, thrashing and fighting our own darker natures, trying to recapture days when our disposition was sunny and warm. When we are invaded by the dark power of the subconscious, we come face to face with the inevitability of our own demise, and recoil in anguish, resisting the abduction.

Persephone is a Kore, or archetypal Maiden, like Athena, Artemis, and Psyche. The Korae represent the budlike quality of the naive, virginal psyche before its encounter with and transformation in the underworld of the unconscious. We are the archetypal virgin bride when we are torn out of our union with what is familiar and forced into congress with what is alien and repugnant to our consciousness.

Whether truth or fiction, this feeling is reported by UFO abductees, who certainly have the symptoms of post traumatic stress. They are forcibly ripped from the fabric of ordinary life and thrust into an alien world where all their boundaries are violated at will, perhaps for the rest of their lives. A primary aspect of the current UFO mytheme is that they inhabit secret underground compounds at various places on the globe.

Victims report both literal and mind-rape as typical abduction experiences. Like the daughter Persephone, they are doomed to die to their old condition, and this is experienced as an act of unconditional surrender. There are many ways the ego undergoes psychological rape, overpowered by the contents of the collective unconscious. One never truly recovers from this experience, but lives forevermore with "one foot in each world," in each reality. Victims of stalking or hostages experience much the same trauma, feeling they can no longer control their lives. Some come to identify with their captors--the Stockholm syndrome.

Meanwhile, the conscious day-world perspective mourns and endures. It may suffer a neurotic, depressive suffering for the sake of suffering with no further aim. There is no motivation for pursuing other interests except to seek refuge in the routine of everyday reality. Jung has said that "...by entering into the figure of Demeter we realize the universal principle of life, which is to be pursued, raped, to fail to understand, to rage and grieve, but then to get everything back and be born again."

There is a third element to Demeter/Persephone, called Hekate, which completes the image of the life-cycle of women: maidenhood, motherhood, and old woman. This Hekate part of us can watch the soul's struggle with the dark forces impassively. Hekate is that part of woman's consciousness which is at home in the dark. She is an old hag who dwells in caves and has the power of foreseeing the future. She knows the necessity of the abduction and its purposeful value. She provides us with an objective viewpoint on our own catastrophes which sees them as an integral part of the cycle of life and death. Her perspective is from that of the final stage.

Grief is the primary emotion associated with Demeter when she is mourning her daughter's absence.

Keywords for the cycles of Persephone/Demeter include,

narcissism	transformation
maiden	family reunion
depth	tenderness
rebirth	depression
dancing	victimization
grief	transformation

<p style="text-align: center;"> mourning resurrection earth mother soil management </p>	<p style="text-align: center;"> organic gardening country living mother love </p>
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INTELLECTUAL IDEA

The myth of Demeter/Persephone reflects the condition of the feminine spirit in a patriarchal society. Women have their own mode of being, distinct from that of men, based on biological rhythms, and the woman's mysteries of blood and birth. It is reflected positively in "Fertility Spirituality" or gender reunion. Feminine values, present in both men and women, tend to be repressed or "put down" into the underworld of the subconscious. They fall into the chasm, or netherworld, which sucks them down into the void. It is then that we feel that our feminine natures or sensitivity have "gone to hell."

Hence, we suffer an emotional woundedness, or a rupture in the fabric of our personalities. The healing of this wound comes from reuniting with that which we are most like, not through the union of opposites. We must mourn and nurse our own woundedness with a descent into the depths to experience our innermost feminine Self. This reunion with the Kore is also the reunion with the core of one's essential being. Persephone's resplendent beauty is her uniqueness.

The concept heuresis, the finding of one's lost self, or the mother/daughter reunion, relates to the resurrection of personal creativity. When energy is building in the subconscious for a new idea or creative project, it is much like gestation. We go through an incubation period where we feel unfruitful or non-productive. We feel sterile, and then the unconscious energy wells up, offering us a treasure we have been seeking. "Spring" is not only a season, but a state of mind. We flower in our own time.

We can find reconnection with the feminine source of life. This myth of Demeter and Kore is the feminine counterpart of the Horus-Osiris myth which reconciles division in the male psyche. Feminine consciousness is an experience of our own sense of interiority. First it is narcissistic (Kore was enraptured with the narcissus flowers in the field). The mode is subjective, almost auto-erotic in its self-love and self-appreciation. Like Psyche, Kore must get past the stage of "nothing but projection" of her idealistic fantasies.

By relating to Demeter/Kore, we come to understand that feminine consciousness extends both upwards and downwards, and this widens our conscious perspective. We come to share in the eternal cycle with an awareness newly risen from the depths. Through the catharsis and rejuvenation demonstrated in the myth, we gain a sense of our uniqueness in the tide of generations of man, abolishing our isolation and returning our sense of wholeness. Paradoxically, we are mature female and child in one being. We always remain our mother's child, no matter how old we are.

The climax of the Demeter mystery is not revealed historically, since it cannot be told. It must be lived and requires "being," not just knowing about it. It requires a very personal entry into the depths of the unknown self, searching for our own lost soul. Her mystery is

now lived out as a process of psychic transformation, if not celebrated in rite. Just ask the mother whose last child has recently "left the nest." It is instinctual, for mothers to guard their children from being seduced out of childhood, from being "captivated" by another, and spirited away from her domain.

The tenderness of maternal love is a key characteristic of Demeter's personality. However, in her negative phase she ravages the earth herself with drought. Withholding the life giving waters kills most of the remaining plant life, opening the bare earth to erosion. Maybe this was her revenge on Gaea for yawning wide to accept the pair into the bowels of the earth. Denied her preferred mode of expression, Demeter becomes her alter-ego (shadow-self), a goddess of death and destruction.

We are like Demeter when we grieve for our dead relatives (like the Pieta, Mary mourning Christ), or anticipate the fear of death. The rape of Persephone and her passiveness show how helpless we are when confronted with death. But lust, decay, death, and birth are all parts of the world of the mother, and she must endure her suffering patiently.

Persephone is also passive when confronted with overt sexual aggression. We are like Persephone if we have anxiety and hostility toward an aggressive spouse. Persephone is passive-aggressive, because she cannot consciously assert herself. Poor Persephone could not even call for her father's aid, since he had betrayed her. She had a naive, over-idealized conception of him. Even parents cannot understand the rape victim, and her "being-in-hell" can represent the psychological distance which separates the victim from her family.

Women experience themselves as the biological and spiritual source of life. When the mother finds the daughter again, it annuls the suffering and violence of the rape and restores the unity of mother and daughter after her "marriage of death." The fundamental change is that a male has encroached on the female world. Kore has been initiated into and fascinated by the male earthy sexuality. She is penetrated by and infused with this male spirit of the depths and becomes pregnant. She becomes identical with her mother Demeter when she is transformed into a mother herself.

The birth of the divine son marks the center of the myth; Kore is transmuted from girlhood to womanhood through the process of childbearing. Through her self-sacrifice, she learns what it means to be a woman on a personal level. Then, her mother's emotional suffering becomes her own. She achieves union with a higher spiritual aspect of feminine life, and is transformed. She is no longer confined passively in the underworld, but becomes one of the regal queens of heaven, the earth, and the underworld. Through her male son, the masculine spirit is integrated into herself and is no longer foreign. She sees it as an extension and variation of herself.

The male initiate to the Eleusinian mysteries identified himself with Demeter to contact his own feminine aspect. This is a stepping-stone in the male spiritual quest. A man seeks his anima to function as a bridge to the unconscious. He did, of course, come from the mother and also needs to re-connect with her life-giving creative powers and instinctual body-knowledge. Her myth gives him access to a formerly impassible region, and she guides his process of maturation. According to Jung, an infantile man has a maternal-type anima

figure, while an adult man's anima is symbolized by a younger woman. An elderly man may have dreams of an unknown young girl, or child, depicting his soul-image.

The primary ritual of Demeter is the Thesmophoria. Part of this rite includes a mass sacrifice.

"The piglets are thrown into the chasms of Demeter and of Kore. The decayed remains of things thrown in, women known as Bailers fetch up; they have maintained a state of purity for three days and they descend into the forbidden rooms, bring up the remains and place them on the altars. It is believed that whoever takes of this and scatters it with seed on the ground will have a good harvest. It is said that there are snakes down below in the chasm that eat most of what is thrown down; for this reason a noise is made when the women bail up and then again when those forms are laid down, so that the snakes will go away. . . Unspeakable sacred things are made of dough and carried up, models of snakes and male membra; they also take pine branches. . . This is thrown into the so-called 'Megara,' and so are the piglets, as we have already said" (after Burkert, *Greek Religion*, pp. 242-43).

This celebrates primeval female energy, bringing under control the fiery burning kundalini serpent energy. The ancient Hebrew word "to consume" "ABLH" also meant "mourning. In Qabala, Binah mourns for us like a faithful mother. The power of the serpent energy is controlled by the feminine principle, as depicted in the Tarot trump "Strength."

Other activities later in the festival involve ritual fasting followed by a meat sacrifice and feasting.

- goddess Kalligeneia, "beautiful birth."
- obscenity.
- dough models of female genitalia.
- blood smeared on the body.
- hostility to men.
- eating of the pomegranate.

Possible functions of the Thesmophoria:

- agrarian magic?
- menstruation taboo (Kerényi)?
- female cult to celebrate issues of concern to women (and hence at the instigation of women)?

While Demeter is searching, there is no fertility (cf. Isis searching for the body-parts of her husband-brother Osiris in the Egyptian fertility myth). Carrying torches, Demeter searches for Kore. After 9 days, Helios (who sees everything above the earth, during the day) tells Demeter where her daughter is. a) While searching Arcadia Demeter is raped by her brother Poseidon (horse cult?); (b) In Elis, Tantalus prepares a cannibalistic banquet to test Zeus and the gods: his son PELOPS is the dinner. The other gods perceive the trick, but Demeter is so distracted that he eats Pelops' shoulder. Although Pelops is reassembled and reanimated by Zeus (resurrection; Osiris story ?) , his shoulder is replaced by a carved piece of ivory.

Taking the form of an old woman (crone), Demeter sits down to rest near a well called Parthenion ('Maiden'), where she is approached by the daughters of King Celeus, who have come to fetch water. They treat the disguised goddess sympathetically, and invite her to come to the Palace, since their mother needs a nanny for their young brother; the most amusing of the girls is Iambe ('Iambic verse'). Offered hospitality, Demeter refuses wine, but accepts a drink called kykeion (barley water with pennyroyal). Queen Metaneira is impressed with the 'woman' and gives her employment. Demeter anoints the baby Demopho(o)n every evening with ambrosia, and puts the baby in the fire of the hearth to burn away its mortality. But one evening Metaneira spies on Demeter and interrupts the rite. Demeter drops the child in surprise, resumes her divine form, and rebukes Metaneira for interfering with divine secrets which would have made the baby immortal. But Demeter does promise to teach her sacred rituals to the Eleusinians.

On the intervention of the older Earth-goddess RHEA (grandmother crone), Demeter (mother) is reconciled with ZEUS (father) and HADES (husband), and has her daughter KORE ('Maid') restored to her--at least part-time. Demeter teaches King Celeus' son TRIPTOLEMUS to cultivate wheat (there is a sacred field of grain at Eleusis, the Rarian Field). He becomes the ancient version of Johnny Applesseed, spreading the knowledge of wheat-cultivation. In Scythia (the Ukraine ?) he visits KING LYNKOS ('The Lynx'), who tries to murder Triptolemus so that he can become the sole possessor of the secret of wheat, and therefore its patron/manipulator. Demeter intervenes, however, and turns Lynkos into a lynx (Ovid, *Metamorphoses* V. 648 ff.)

Further reading on this Demeter/Kore myth can be found in the following:

MY MOTHER, MY SELF

THE GODDESS, Christine Downing

GODDESSES IN EVERY WOMAN, Jean Shinoda Bolin

THE CINDERELLA COMPLEX, Colette Dowling

MEETING THE MADWOMAN, Linda Leonard

RAPE & RITUAL, R. Paske

THE RAVAGED BRIDEGROOM, Marion Woodman

ADDICTED TO PERFECTION, Marion Woodman

ELEUSIS, ARCHETYPAL IMAGE OF MOTHER AND DAUGHTER, C. Kerényi

THE MEANING OF APHRODITE, Paul Friedrich

THE GREAT MOTHER, Erich Neumann

ESSAYS ON A SCIENCE OF MYTHOLOGY, Jung and Kerényi

THE MOON AND THE VIRGIN, Nor Hall

"The Rape of Demeter/Persephone and Neurosis," *SPRING 1975*, Patricia Berry

M. Detienne, "The Violence of Wellborn Ladies: Women in the Thesmophoria," in M. Detienne and J.-P. Vernant (eds.), *The Cuisine of Sacrifice Among the Greeks* (Chicago 1989), pp. 129-147.

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SPIRITUAL MYTH

The Greek myths come from older Egyptian counterparts. And in every sense, Persephone is Isis. When the Greek (Ptolemy) dynasties ruled Egypt, syncretism returned active worship of this archetype in Greek form back to its native soil. She is most popularly spoken of in Jungian circles now as the Black Madonna, the sensuous feminine power of the body. The body knows instinctively how to be born, give birth, and how to die.

In Greece, the Eleusinian festivals, the Lesser Mysteries were celebrated in the spring, and formed a preliminary probation period of the Greater Mysteries conducted in the Autumn (September and October). Initiation was open to both men and women providing they spoke Greek, had killed no fellow being, and had passed through the Lesser Mysteries. The rites involved processions, sacrifices, dances, and songs. The frolicking in the lush, flowering meadows by the sea must have been a breath of fresh air for the Athenians. They lived in squalid hovels with dingy, dirty streets, even though the magnificent Parthenon with its temples formed the heart of the city. They were like our typical city-dwellers who long for revival in a heavenly pastoral setting.

A third stage of initiation was open to those who had been initiates for a year. It culminated in a supreme vision, the nature of which we may only guess. It was probably the revelation of identity between Persephone's son and the ear of corn. But some have speculated that it involved a graphic enactment of the rape of Persephone. Attempts have been made at reconstructing the rites, but only fragments are available. Included were ritual fasting and imbibing of the sacred drink or kykeon, a mind-altering beverage. What is known is that after a sacramental meal (which represents a sacred marriage like communion), the final vision took place in a dazzling light, and included an invocation of Kore.

The Eleusinian Mysteries opened a new religious dimension for the Mediterranean world, with the promise of immortality. Through them, the initiate perceived a continuity between life and death. It opened speculation concerning the underworld which was suppressed by the predominant Olympian religion. The same dynamic happens in the modern psyche, obsessed by sexuality, power, and the day-world. Trauma may lead us into the underworld, and we seek a shaman or therapist to help guide us through these dark realms.

Demeter/Persephone became the most popular of Greek goddesses during this period. Initiation into her cult guaranteed a sort of "adoption" by her. A major characteristic of the cult which became paradigmatic for most other Mystery cults was the strict emphasis on silence and secrecy. Thereafter, it became stylish for Masters to reveal their secrets only to their initiates.

In the third century B.C. this Greek cult became amalgamated with the Egyptian cult of Isis and Osiris. Isis was identified with the Great Mother, Demeter, and Osiris was

identified with the initiated individual who attained "salvation." Osiris was also identified with Dionysus (sometimes called Demeter's divine child) who was also killed, dismembered, then resurrected.

In the Hellenistic period, the Mysteries of Isis provided a ritual rebirth at Eleusis as its central purpose. The object was for the initiate to become Osiris, raised from the dead by the magical power of the goddess Isis. Thus the best of Egyptian religious tenets was incorporated into Greek life. Accounts of this are found in Plutarch's *ISIS AND OSIRIS*, and *THE GOLDEN ASS OF APULEIUS*, by a Roman initiate.

After fasting and meditation, the mystes took part in a mystery drama where he personified Set, Apeph, or Typhon in the form of a red ass. He was tormented, and his lust and desirousness transformed through fully experiencing his instinctual nature. The deep religious intensity of the aspirant produces transformation and the identification with the dead Osiris. He journeys to Hades and sees the midnight sun shining brightly. He also sees the revelation of the celestial and infernal Gods, or becomes acquainted with the archetypes of the collective unconscious. After this ritual death, he is raised by the power of Isis (Demeter).

The Isis of Hellenistic times, as Nature and the Moon, was creator, mother, nurse, and destroyer, just like Demeter. She also embodied Wisdom or Sophia; Osiris was Knowledge, Reason, and Logos. Through acceptance by Isis, the initiate caught in the instinctual level of passion and lust, is raised to a spiritual life. The initiate believed the goddess Isis could prolong life beyond the term fixed by Destiny, or fate. But this process involved a metamorphosis by undergoing a voluntary ritual death in order to obtain a spiritual birthday. The living individual became "divinized" through the powers of the goddess. This Hellenistic mystery theology expresses the deepest Egyptian religious genius.

Man's anima, as Psyche is sent to Hades to see Kore-Persephone who is a variation of Venus-Isis in her underworld aspect. She opens the box and tries to secure the special "beauty" for herself. This means the man's anima equates beauty with goodness. He cannot believe a beautiful woman is capable of wickedness. This is a naive attitude which expects a real woman to enact his anima projections. A woman acquires the psychic, rather than physical) beauty which results from being herself--the human soul that knows it isn't the goddess.

Psyche falls into a death-like sleep, but a transformed Eros appears to redeem her. The Greeks corresponded Eros with Osiris, who taught men and women genuine mutual love. Eros here is a psychological symbol of the Self. Further transformations of the man's relationship with his anima are required before he can experience the final Isis initiations. In these, Osiris is the secret ruler of the underworld, or personification of the collective unconscious. He is much more than a simple vegetation-god.

When he is reborn as the Horus-child, he represents restored wholeness or totality. He is the secret spiritual goal of the Isis Mysteries. The initiate passes through the three psychic stages toward a unification of the personality. It is produced through the image of one all-embracing Goddess. Isis is the symbol of the Self in feminine form.

A religious experience must be accepted in its totality, and therefore is lived as a lifestyle, publicly. But this does not imply telling one's inner secrets to everyone, producing an ego inflation. The Self counsels us on the hiding or exposing of secrets. The conscious, religious attributes of the secret Self, Osiris, underwent transformations until he became identified with the reborn human soul. Like Osiris, the human soul tends to fragment into several individual parts, represented by the pantheon of gods.

Isis is the only divinity which keeps her unity. She is an emotional and feeling of totality which leads the way to conscious individuation. But to participate we must be more than an intellectually involved armchair philosopher. This mental interest does not transform the divine inner nucleus like experiential initiations do. Isis is the guide to the experience of oneness. The psyche is the only reality known through immediate experience. Isis gives meaning to suffering, and initiates the healing process. Man's fate is similar to that of Osiris. The religious pattern revealed in the mysteries was that first comes the realization of the anima, and then of the higher Self, Isis and Osiris.

A positive relationship to the goddess produces psychological transformation in earthly life, which produces immortality analogous to that of the philosopher's stone in alchemy. The aloofness of the Olympian gods is transcended through personal experience.

Jung spoke of five forms of rebirth:

- 1) Metempsychosis. The transmigration of souls by passing through different bodily existences.**
- 2) Reincarnation. Continuity of personality (ego-form) through rebirth in different human bodies.**
- 3) Resurrection. Raising of the dead in a glorified or incorruptible "subtle body."**
- 4) Rebirth. Renewal within the span of individual life with a change in functionality (healing), not essential nature. Or essential transformation (transmutation).**
- 5. Participative transformation. Indirect rebirth through witnessing ceremony or rite, such as Mass or Eleusinian mysteries.**

The shadow side of this Demeter/Kore/Hades myth has penetrated our society and our spirituality as the real and imagined fear of the organized and unorganized criminal element in our society. The enemy is no longer way out there, such as the Communist threat. It is right within our precincts, operating with no respect for boundaries, violating us at will.

Spiritually, it means our naive well-meaning selves can no longer trust that most people will treat us honestly and well. The injunctions of mistrust are simple: "Don't go out after dark; lock your doors at all times; don't walk in many neighborhoods," etc. We are terrorized in our own communities, and not safe within our very homes.

There is no sanctuary. Our society is being penetrated by an underground life whose violations of our being feel like rape--mind rape, which instills constant fear and stress. It

promotes coldness and mind-numbing cynicism. It even enters our dreams. We feel helpless before it, both externally and internally, because of our seeming incapacity to deal with this reality. The demon has us in his embrace, and our victim mentality takes over.

Another form of spiritual domination is effect of the collective power animus--the masculine power drive--on women (and sometimes men), which enslaves them in service to the patriarchy. Out of touch with feminine feeling values, we inflict meaningless suffering on one another. It results in broken relationships, drivenness, judgmentalness, and high tension. Sometimes the unconscious inflicts its own autonomous form of mind-rape by overwhelming the ego with its contents.

Marion Woodman speaks of the psychological implications of the mytheme in modern life:

...Where the woman is caught in unconscious identification with the mother...she has to be raped out of that identification before she can find her own individuality. This is the meaning of the Demeter-Persephone myth, where the Kore is carried off to the underworld by Hades. If Demeter is out of touch with her inner Persephone, she is out of touch with her own essence. Persephone is a maiden who looks in the looking glass and goes through to other side, opens herself to the wealth of that inner world, experiences the ravishment and returns with a wealth of sensitivity and a sense of her own uniqueness--bearing new life. Without Persephone, Demeter is barren.

Modern Demeters are beginning to realize that their own earth has been ravaged and they are becoming so aware of the violation that they are trying to do something about it, not only for themselves but for their Persephones, their own biological daughters and psychological daughters. They realize they have been raped by the one-sidedness of the masculine principle that thrusts toward the goal without enjoying the pleasure of the journey. Ultimately, the feminine mysteries have to do with the sanctification of matter, and being aware of ourselves and others as human beings in the reality of the moment.

Throughout history mankind has employed psychoactive agents to heighten the experience of reality. The shamanic journey is classically conceived as a descent to Hell and ascent to divine realms. The cult of Demeter, one of the original Mystery schools, at Eleusis was no exception to this widespread pattern. Its secrets are only now being revealed through modern research and informed speculation. In the Demeter cult, this drink was called the Kykeon. Three thousand years ago in ancient Greece a mass religious event took place every year in which a magical sacred brew was drunk by initiates in a ritual setting. Pindar said, "*Blessed is he who, having seen these rites, undertakes the way beneath the Earth. He knows the end of life, as well as its divinely granted beginning.*"

One such sect was centered in Greece, and in the year 395 A.D. Alaric the Goth and his band overran and destroyed the Temple at Eleusis, the holy place where the famous and two-thousand-year-old Eleusinian Mysteries had been practiced. The central feature of that yearly celebration, initiation, and revelation was the partaking of a powerful and mysterious potion, the kykeon. Far from being a minor and obscure sect, the Mysteries had been for centuries a central and important religious experience and inspirational revelation whose initiates included essentially all the great names of Greek antiquity. Its importance,

along with the secret of the divine and psychoactive sacrament used in the yearly celebration, has remained to this day almost entirely ignored by scholars.

Kykeon: KUKIEW/N. Normally translated: I. "potion"; II. "mixture" (From the verb kuka/w "to mix, stir"). When Nestor's slave Hekamede is called upon to provide a restorative medicinal drink for her master and the wounded Machaon, she brews a kukeiw\n. An onion and some honey are provided as relish (it is not clear whether these are important to the recipe), then she mixes Pramneian wine and sprinkles over it goat's cheese and bruised barley meal. The kykeon brewed by Kirke (when she drugs Odysseus' sailors) contains wine, cheese, barley, and honey, and the drugs she adds are said to be in si/twi, the food or specifically, the grain. This then seems to be a particular and recognizable drink.

The famous reference to kykeon is of course in the *Homeric Hymn to Demeter*, where the goddess asks for a mixture of water, barley meal and mint (or pennyroyal) because she can not drink wine while mourning her daughter. This is the potion drunk by initiates preparing for the Eleusinian Mysteries, although Richardson argues that it was merely an invigorating drink and not central to the mysteries, and there is certainly no reason to argue that it had hallucinogenic or psychotropic qualities as some have suggested.

Different qualities of the herbs (pennyroyal, or soft mint, is the most popular) added to the kykeon have also been suggested by the various commentaries, but it seems likely that the perceived invigorating effect is the same as that of Barley Water today. He also observes that different types of kykeon are listed in the Hippocratic writings, with various medicinal qualities ascribed to them. It seems safe to say that any specific chemical effect of the drink would be limited to its refreshing quality in preparing tired initiates for the important ceremonies to follow. It is unclear whether there is further significance to initiates partaking of grain during a ceremony to the goddess of the harvest.

A fragment records Herakleitos saying that the kykeon "disintegrates if it is not stirred"; this tells us that in his time at least, the kykeon was made up of thick grain mixed with water, and not a smooth, porridge-like paste (incidentally, Barley Water also needs to be stirred before drinking). This etymology is interesting in the light of discussion on the mixing of herbs; however, in the case of magic drugs (fa/rmaka) it is the combination which is significant.

These references may give us some clue to the particular use of the kykeon in h.Cer., which became important as part of the Eleusinian ritual. The kykeon potion that interests us, however, that which Kirke mixes in the *Odyssey*, seems only to be the refreshing, mixed drink of Homeric epic, which has no ritual attached except perhaps the greeting and feeding of guests at the end of a long journey. It is this which Kirke (Circe) feeds to the sailors and then to Odysseus, the difference being the drugs she has secretly added to it.

The Mysteries were celebrated at Eleusis, from around 1500 BCE to the fourth century CE. After Persephone's abduction by Hades, god of the underworld, Demeter left Olympus and vowed never to return, nor to allow crops to grow on earth until she and her daughter were reunited. Demeter found refuge in the palace of the king of Eleusis, Keleos, and as a mark of gratitude, she founded a temple there. Fearing that humankind would become extinct without food, Zeus ordered that Persephone be returned so that Demeter would also go

back. Before Demeter returned to Olympus she instructed the kings of Eleusis, Keleos and Triptolemus on how to celebrate the rites in her temple, which were to be 'Mysteries' (secret teachings).

Up to three thousand people were initiated each year - any Greek-speaking person who had not committed a murder could present themselves once for initiation. Among those underwent the rite were Aristotle, Sophocles, Plato, Cicero and a number of Roman emperors such as Hadrian and Marcus Aurelius. The celebration of the Mysteries began in the autumn, with four days of rites and festivities in Athens. On the fifth day, a solemn procession to Eleusis began, during which rites, sacrifices and purifications took place. On the sixth night, cloaked in secrecy, the climax of the Eleusinian ceremony took place in the inner sanctum of the temple, into which only priests and initiates could enter.

"The initiates often experienced in vision the congruity of the beginning and the end, of birth and death, the totality and the eternal generative ground of being. It must have been an encounter with the ineffable, an encounter with the divine..." (1) Before the climax of the initiation, a sacred potion made of barley and mint and called the kykeon was administered. The possible psychoactive ingredients in kykeon have been hotly debated. It has been suggested that the mint in the mixture might have provided the mind-altering element as the mint family contains the plant *Salvia divinorum*, used by the Mazatec Indians of Mexico in a divinatory context. Terence McKenna has suggested that *Stropharia cubensis*, or another psilocybin-containing mushroom, might be the key.

The most convincing theory about the nature of kykeon, results from extensive research by Gordon Wasson, Albert Hofmann and Carl Ruck. In *'The Road to Eleusis'* (2) they argue that the parasitic fungus ergot, found on particular wild grasses, is the psychoactive component of kykeon. It would have been simple for an Eleusinian priest to collect the ergot from the wild grass growing near to the temple, grind it into a powder and add it to the kykeon. The theory is further supported by the fact that ergot is commonly found on grain, Demeter was the goddess of grain, and ears of grain featured prominently in the ritual. (Hofmann, A. (1997) *The Message of the Eleusinian Mysteries* in Forte, R. (ed.) *Entheogens and the Future of Religion*. San Francisco: Council on Spiritual Practices.)

LSD is a modern product of ergot, providing an intriguing link between the Greek religious rituals of many thousand of years ago, and today's entheogenic explorations. As Albert Hofmann - inventor of LSD and investigator of the Eleusinian Mysteries - puts it: "If the hypothesis that an LSD-like consciousness-altering drug was present in the kykeon is correct - and there are good arguments in its favour - then the Eleusinian Mysteries have a relevance for our time in not only a spiritual-existential sense, but also with respect to the question of the controversial use of consciousness-altering compounds to attain mystical insights into the riddle of life" (1999, Michelle Pauli)

An Excerpt from *Pharmactheon* (1993) by Jonathan Ott

POSTSCRIPTUM: THE SECRET OF THE ELEUSINIAN MYSTERIES UNVEILED

In a most exciting recent development in the study of LSD and other ergoline entheogens, R. Gordon Wasson, Albert Hofmann and Carl A. P. Ruck have advanced the startling new theory concerning the Eleusinian Mysteries of ancient Greece. The theory was first

presented on the morning of Friday, 28 October 1977, at the Second International Conference on Hallucinogenic Mushrooms" held at Fort Worden, near Port Townsend, Washington (I organized this conference; see Chapter 5, Note 11). A full-dress presentation followed in May 1978, when these three distinguished scholars published *The Road to Eleusis: Unveiling the Secret of Mysteries* (Wasson et al. 1978; Wasson et al. 1980b). That the reader may appreciate the significance and meaning of this theory, I will review the history of the ancient Mysteries of Eleusis.

The Eleusinian Mystery was an annual celebration of a fertility cult, over which the goddess Demeter presided. Anyone speaking Greek could be initiated into the cult, but only once in a lifetime. The "Greater Mystery" was celebrated in the autumn, in a sanctuary at Eleusis, bordering the Rarian Plain, near Athens. For nearly 2000 years the annual celebration was held, but never was the secret of the mystery revealed. Initiates passed the night together in the darkened telesterion or initiation hall, where they beheld a great vision which was "new, astonishing, inaccessible to rational cognition." Of the experience, they could only say that they had seen *ta hiera*, "the holy"--it was forbidden by law, under penalty of death, to say anymore (Wasson et al. 1978).

Most of our information about the Eleusinian Mystery comes from the so-called Homeric Hymn to Demeter, an anonymous seventh century B.C. poem. The poem describes the mythical founding of the Mystery by Demeter, who was grief-stricken at the abduction of her daughter Persephone (also called Kore) by the god Hades, of the underworld. Demeter caused all of the plants on the Earth to die, and fearing humankind would also die and there would then be nobody to make sacrifices to the gods, interceded with Hades, and forced him to return Persephone to Demeter. Persephone, however, had eaten a pomegranate seed in the underworld, and was therefore condemned to return to Hades for part of each year. This always saddened Demeter, who would again cause the plants to die, to be reborn again in the glory of springtime, with the return of Persephone to the world of light. The lovely myth symbolized for the Greeks the natural mystery of the changing seasons and the miracle of the springtime rebirth (after burial in the cold Earth) of cultivated grain on which their civilization depended.

Demeter ordered the construction of the Eleusinian sanctuary and, refusing wine, directed the preparation of a special potion, the *kykeon* ("mixture"). The ingredients of the *kykeon* are spelled out in the Homeric Hymn: barley, water and *blechon* (or *glechon*, a mint, probably *Mentha pulegium*, a plant burned as an offering by shamans to Pachamama in Peru; see Appendix B; Wasson 1967; Wasson 1979). From fragmentary ancient reports, including the remains of a fresco at Pompeii, it is known that initiates to the Mysteries drank Demeter's potion as a prelude to experiencing a soul-shattering vision. The Eleusinian Mysteries were driven into extinction by the Christians in the fourth century of our era. The "secret" was not vouchsafed to us by the Christians, if in fact they themselves knew it, which is extremely doubtful.

Much has been written concerning the Eleusinian Mysteries, but apparently it had never occurred to anyone before Wasson that the potion, the *kykeon*, have had something to do with the vision. Classical scholar G.E. Mylonas, for example wrote a detailed book on Eleusis and the Eleusinian Mysteries, and concluded that: "the act of drinking the *kykeon* was one of religious remembrance, of the observance of an act of the Goddess, and implied

no sacramental mystic significance," (Mytonas 1961). Three years before Mylonas made this pronouncement, Wasson had connected Plato's "ideas" and world of "archetypes" with entheogens (Wasson 1958) and just the year before, Wasson had tentatively suggested in a lecture that was subsequently published (Wasson 1961; Wasson 1972d):

"I predict that the secret of the Mysteries will be found in the indoles, whether derived from mushrooms or from higher plants or, as in Mexico, from both." This idea was first suggested by Wasson in a lecture on 15 November 1956, shortly after his experience of mushroomic ecstasy (see Chapter 5). A recent book (T.K McKenna, 1992) wrongly credited Robert Graves with first proposing that the kykeon was entheogenic in 1964 (see Graves 1957; Graves 1962; for examples of his speculation regarding entheogenic mushrooms, inspired by his collaboration with the Wassons) A 1936 book published in French (Felice 1936) first explored the concept of ivresses divines ("divine inebriations," obtusely characterized as "inferior forms" of mysticism!) and mentioned the Eleusinian Mysteries, but advanced no specific theories on the nature of Demeter's potion. With the elegant and exciting proposal advanced by Wasson, Hofmann and Ruck in 1977-1978, this perspicacious prediction has been placed on a strong and specific scientific footing.

It is the thesis of *The Road to Eleusis* that Demeter's potion, the kykeon, was entheogenic, and elicited the ineffable vision experienced by thousands each year. According to the theory, it was ergot growing on the barley which accounted for the potion's entheogenic properties. Hofmann argued that by making an aqueous extract of the ergot-infested barley, the ancient Greeks could have separated the water-soluble entheogenic ergot alkaloids (ergine, ergonovine, etc.) from the non-water-soluble toxic alkaloids of the ergotamine/ergotoxine group (Bigwood et al 1979; Hofmann 1978b). Hofmann further suggested that the Eleusinian priests may have employed ergot of the wild grass *Paspalum*, which produces only the entheogenic alkaloids. Hofmann pointed out that the psychotropic properties of ergot were known in antiquity, and that such folk knowledge of these properties lingers in Europe, as evidenced by the names for ergot: Tollkorn ("mad grain") and seigle ivre ("inebriating rye"; Hofmann 1978a).

This simple and elegant theory is buttressed by examination of the rich symbolism attending the cult. Eminent Greek scholar Ruck meticulously showed how the ergot theory fit the available evidence. One of the more telling pieces of evidence is the fact that Demeter was often called Erysibe, "ergot," and that purple, the color of ergot, was her special color. Furthermore, an ear of grain was the symbol of the mystery. Ruck has adduced further evidence in support of the theory presented in the book. He has proposed that Socrates was executed for profaning the Mysteries by making the kykeon in Athens with his disciples, and that Aristophanes escaped legal problems by burying hints of this in *Birds and Clouds* (Ruck 1981). We know from Plutarch that Alcibiades was sentenced to death for the same crime--profaning the Mysteries in Athens.

In a paper analyzing *Bacchae* of Euripides, Ruck later discussed the use of wines in ancient Greece as a vehicle for the ingestion of entheogens and other drugs, and discussed the "cultivated" (grain and civilization) versus the "wild" (ergot, thought to represent the degeneration of cultivated grain to its wild precursor; Ruck 1982). This fascinating study illuminates some linguistic curiosities of the Bible, in which "wine" (yayin in Hebrew) is repeatedly compared and contrasted with "strong drink" (sheker in Hebrew), evidently an

entheogenic potion (Ruck 1982; Wasson 1914). Finally, Ruck identified the Hyperboreans as Aryans, and proposed that their first-fruit offerings were none other than the miraculous soma—entheogenic mushrooms (see Chapter 6; Ruck 1983). The amrta, the Soma potion, is etymologically identical to the Greek ambrosia, which we now know, thanks to Ruck, Hofmann and Wasson to have been an entheogenic potion.

Hofmann has often described the "magic circle" of his research on entheogens starting with the discovery of LSD, a derivative of ergot alkaloids, he was later brought into contact with R. Gordon Wasson, who supplied him with the sacred mushrooms of Mexico, leading to Hofmann's discovery of psilocybine and psilocyline, and who then supplied him with ololiuhqui, another Mexican sacred durg in which Hofmann found the same alkaloids he had begun working with two decades earlier (Hofmann 1966; Hofmann 1967). Now it appears that Hofman's "magic circle" has undergone a second revolution, again leading back to ergot, a sacred drug of ancient Greek culture, which is unmistakably our own, IndoEuropean culture.

CULTURAL CORRESPONDENCES

Isis (Egyptian)

Ceres (Roman)

Sekmet (Egyptian, child-devouring lioness)

Pieta (Christian, mourning Mary)

Xilonen (Aztec, maize goddess)

Ariadne (Greek, mortal wife of Hades)

CONTEMPORARY EXAMPLE

Former Secretary of the Interior, James Watt, was influential in the metaphorical rape of virgin territories and wilderness areas by wealthy (Hades' keyword) oil, mining, and timber conglomerates. He was accused of breaking the law in 1985. This lack of concern for the integrity of the soil continues to occur through the raping or mining of our nation's agricultural soils. Piling on chemical fertilizers makes a big short-term profit. But in the long-run, soil is drained, depleted, and left barren by these tactics. eorge W. Bush, as President has implemented ecologically disastrous oil drilling, carpet bombing, and nuclear weapons policies.

Another expression of this myth-theme happens in stalking, stealing, and kidnapping of children. It robs them of their childhoods, their innocence. Of course, when their children are stolen from right under their noses, parents are inconsolable. They mourn, search, and grieve endlessly, since there is no emotional closure. No one knows if the child is dead or not. Kidnap victim, Patty Hearst was literally sucked into an underworld life of crime and violence when she was abducted by the S.L.A. (Persephone).

Golda Meir was known as the Earth Mother of Israel (Demeter).

KEYWORDS

narcissism, maiden, depth, rebirth, dancing, resurrection, Mother's Day, earth mother, transformation, rupture, organic gardening, vacation in the country, mother love, soil

management, family reunion, tenderness, depression, vulnerable, abduction, maternal instinct, nurturing, grieving, empty nest, supportive, traditional, victimization, "burnout," fertile, dependency, breastfeeding, passive-aggressive, compliance, oversolicitous, deviousness, lying, manipulation, flattery, daydreamy, psychic.

DIALOGUE WITH DEMETER/PERSEPHONE

These are vulnerable goddesses more like Hera in consciousness than the virgin-goddesses Artemis, Athena or Hestia. In contrast to the focused consciousness of the virgins, these goddesses are typified by "diffuse awareness," which can be described as "an attitude of acceptance, an awareness of the unity of life, and a readiness for relationship."

This quality of consciousness typifies the relationship-oriented people of both sexes. Diffuse awareness allows the mother to maintain awareness of her children even when they aren't in her immediate presence, and enables a wife to know when her husband is upset. Negatively this means she can be easily distracted by others. Try to notice when you experience this type of awareness over focused consciousness.

Unfortunately the vulnerable goddesses were also subject to victimization or abuse. When have you been victimized or had an uninvited intrusion? Jung has said, that what is unconscious comes to us as fate. When has fate opened a chasm in your life, and dragged you into the underworld? How did your state of consciousness contribute to this event?

Those who feel unprotected will have frequent anxiety dreams of hostile, aggressive, or threatening men. It is characteristic of the Demeter/Persephone personality to have a happy or fulfilled phase, a phase during which she is victimized, suffers and is symptomatic, and a phase of restoration or transformation. A susceptible personality can learn to predict its own problems and save some suffering. They gain balance through learning judgment and independence. How have these cycles unfolded in your life?

The main psychological issues here are victimization, power and control, expression of anger, depression, and possible lapse into a psychotic breakdown. An exaggerated need to nurture can also lead to "burnout," fatigue and apathy. Exploitation due to lack of personal assertiveness can lead to passive-aggressive reactions, which appear as forgetfulness or lack of responsibility. Then we should "mother" ourselves, giving our concern to our own well-being. If we are too passive and compliant we are dominated by other, and need more self-determination. Speak with the goddesses on these issues, as well as concerning ecstatic religious experience.

DEMETER/PERSEPHONE IN YOUR LIFE

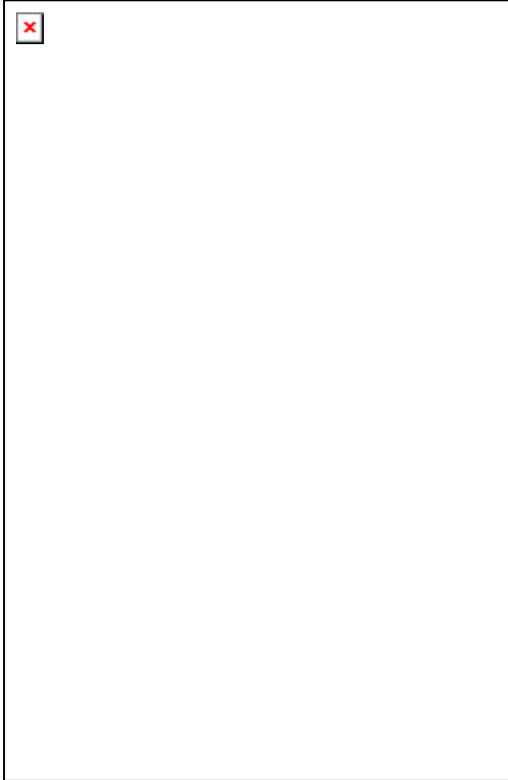
- 1. Man or woman, have you ever been gripped by the intense desire to engender offspring?**
- 2. Were you narcissistic as an adolescent or during any later phase of life? What aspects of life and relationship did your self-absorption keep you unconscious of?**
- 3. Describe a particular instance in which your "maternal instincts" were aroused. Could you relate to the fierceness of a lioness or bear defending her cubs?**

- 4. Describe your understanding of how mother love can become smother love. Were you ever a victim or victimizer in this sense?**
- 5. Have any of your profound depressions revolved around the loss of a loved one?**
- 6. When grieving Demeter stopped functioning, nothing would grow. Famine threatened to destroy mankind. This is manifest in today's Africa. How do you react to this knowledge and the media coverage? Has it awakened your desire to nurture or provide food?**
- 7. The destructive side of Demeter is expressed by withholding what another person needs, rather than being actively destructive. When and with whom have you enacted this pattern in the past or present?**
- 8. Have you ever been in a nurturing or helping profession such as nursing, teaching, social work, physical therapy, rehabilitation, or pediatrics? Perhaps you've volunteered at a nursery school, hospital or nursing home.**
- 9. Is your inner Demeter fulfilled, having learned to foster independence, or is she unhappy, betrayed, and disappointed by unfulfilled expectations?**
- 10. How can you learn to mother yourself with special care to keep you functioning at an optimal level? Do you get the treatment you deserve, or extend yourself beyond your time and energy reserves in the service of others? Try reading *WHEN I SAY NO, I FEEL GUILTY* if this problem is severe.**
- 11. After her initial abduction, Persephone became a guide to the underworld as well as its Queen. Since the underworld represents the deeper layers of the psyche where memories and feelings, images, patterns, and instincts lie buried. Persephone the Guide is the part of our psyche which is responsible for the sense of familiarity with symbolic language, ritual, madness, visions, or ecstatic mystical experience. Have you experienced Persephone as inner guide, perhaps through grief, depression or mental illness?**
- 12. The collective unconscious appears in dreams as underground images, a basement or underground corridor, or a labyrinth. It may also appear as a deep cave where one might encounter beings, objects, or animals. One is awed, afraid or interested, depending on whether this realm is feared within ourselves. Can you remember any of these images in your dreamscape?**
- 13. Persephone the Queen and Guide represents an ability to move back and forth between the ego-based reality and the unconscious or archetypal realm of the psyche. When she is activated we can pass to either level and integrate both in our personality. Describe how you might enhance your contact with this mighty Queen.**
- 14. The diffuse consciousness, with generalized receptivity and lack of focus facilitates receiving ESP, or psychic ability, or mediumship that is unafraid of the uncanny, at home in the underworld. They may be intoxicated, ecstatic, charismatics who "speak in tongues," also. Have you ever received an ESP message, or a communication from the dead?**

*Hail Hephaistos, preeminent craftsman;
Artful his style, bold his creation.*

CHAPTER IX: THE HERMIT

HEPHAISTOS



Hephaistos, God of the Forge, is the personification of subterranean and terrestrial fire, including human lustiness. The instinctive, libidinous "fire down below" is echoed by the Tarot attribution of the spermatzoic letter *Yod*, which means "hand" but represents the 'point' of the phallus, particularly the sperm which projects from it. It represents the longing for soul completion, or union through the sexual act. This is reflected in the mythic versions where cuckolded Hephaestus is married to Aphrodite. He also attempts the rape of Athena, but his seed falls to the earth depotentiated. Thus he embodies the betrayed and/or rejected lover. The Hermit is solitary, but not lonely. When he seeks the antidote for isolation, he wants to be seen, touched, reacted to, to be intimately close to another human being. Even that partner cannot walk his path with him, for we can only become self-realized alone.

His worship is probably derived from the Vedic god, Agni. His dominion over primal fire ranges from the wild force of volcanic activity to the harnessed fire of metallurgy. He is the archetypal mechanic or engineer. Technological man has inherited his legacy, and his woundedness, and in this regard Hephaestus shares something in common with Prometheus who stole "fire" from the Gods. The boon carries a bane inherent within its

nature -- for one thing, he is preoccupied, even obsessed, with details. We see this today in the obsessive loner techno-geek type.

Hephaistos was born of Hera alone. Some ancient authors say Hera invented the legend of his virgin birth because he was conceived before her marriage to Zeus. Others claim that he was conceived from Hera's brooding over Zeus' creation of Athena. Since Hephaistos is credited with striking the blow which released Athena from the cranium of Zeus, this account seems confused. Yet, the mythic dimension is non-linear. So when we compare accounts of exploits, there are discrepancies and variations on the theme from different regions and times.

Whether Zeus fathered Hephaistos or not, he rejected him forthwith. In one version, Hera abandoned him also, hurling her lame son into the sea from Olympian heights. This rejection and abandonment led him to judge himself as "imperfect" and his compensation was to achieve technological perfection through his work.

Hephaistos was born with a birth defect; he was lame and twisted, and only learned to walk with great difficulty. His appearance disgusted Hera, and she tried to hide him from the Immortals. He was raised by sea nymphs until the age of nine, when he made his existence known to the Olympians.

Already an artistically gifted inventor, Hephaistos sent Hera a beautiful throne he made for her as a present. He was not only a craftsman, but a crafty individual--the throne concealed a trap for his mother. Hephaistos came back to Olympus on his own terms, demanding to know the secret of his birth and seeking the beautiful Aphrodite as his bride.

Hera's heart softened when she saw her son, and she tempered her attitude toward him. But Zeus never accepted him for how could he claim the imperfect as his own creation? Hephaistos always took his mother's side when they fought. Seeking to prevent Zeus from beating his mother, another tale recounts how Zeus hurled Hephaistos down to earth. He landed, half-dead, in the island of Lemnos where he was cared for by a guild of dwarfish miners and metal-workers.

Here he took on his nature as the god of "earthy" fire. His name is said to mean 'fire' or ruler of fire. Other than the metaphor which associates him with lightning, he is distinguished from the celestial fire of Zeus. Earthy fire promotes civilization by giving us the ability to work metals. Hephaistos thus became the archetypal blacksmith, characterized by his powerful upper body and the quality of his artistic and mechanical creations. In ancient Greece it was customary for lame men to become smiths.

Hephaistos kindles within us his own primordial desire. His creative hand is "trying to grasp," both in the physiological and psychological sense. He tries to grasp his mother's abandonment, his father's rejection, and his own deformed nature. He represents man as the tool user, equipped with an opposable thumb. It is the ability of the creative hand to grasp which links Hephaistos with Trump IX, THE HERMIT, which corresponds with the Hebrew letter Yod, which means "the hand," --specifically the creative hand.

There are numerous ancient connections between Hephaistos and the pre-Olympian Great Mother. Psychologically, this links the subterranean fire of the smith-God with the dark,

internal energies of the Mother's creativity. He can't produce babies, so he copies the creativity of nature and produces things carefully wrought by hand.

Some Jungians note that Hephaistian fire takes its light and energy from the central fires which are at the heart of nature's creativity. Therefore, Hephaistos is a split-off animus of the Great Mother. He "mimics" the creative processes in the depths of the Mother and brings his works of art to birth by technological means.

Even though he lacked physical symmetry and personal grace, his inventive spirit found an area in which he could excel--the working of metals. He is characteristically depicted as grasping his hammer and tongs in his hands, ready to work and temper the raw metal. There was a *STAR TREK NG* episode where the android Data has a vision of his creator, Dr. Sung, forging a bird's wing. Data comes to realize that "he is the bird," and his imagination takes flight as he claims another level of his inheritance.

Hephaistos was a prolific artist, creating artifact after artifact of great precision and beauty. Many appealed to him for his services. Even the haughty Zeus came to him for help in punishing Prometheus and men for the crime of stealing the celestial fire--consciousness.

Zeus commissioned Hephaistos to create the body of the first woman from water and clay, taking care to make her a resplendent beauty. Zeus breathed life into her. Pandora, a human-sized Great Mother with her magic box of evils, misery, suffering, and disease was loosed on the world. The woes of physical life come along with corporeal existence.

This myth about the origins of corporeal life coming from clay has been confirmed by modern science. It is more than a metaphor. In 1985, NASA scientists showed that clay gives off life-promoting bursts of ultraviolet radiation. It literally stimulates the growth of organic molecules. Some clays respond likewise when exposed to gamma radiation.

This discovery led to the proposal of a new theory of human origins--that we are the fruit of the soil. Other theories begin with "primordial soup" or interstellar "seeding." Yet, ordinary clay acts like a chemical factory by storing and transmitting energy. It can transform inorganic raw materials into more complex molecules from which life arises. In Genesis, Adam is formed of the "dust" of the earth.

Despite his own deformity and imperfection, or more likely because of it, Hephaistos yearned for pleasures and aesthetic beauty. Therefore, he sought and won the hand of Aphrodite. Their marriage symbolized his addiction to pleasures of beauty, even though she cheated on him. He also lusted after Athena, but again the pattern of his rejection prevailed, revealing his faulty anima relationship.

As a result of his continual rejection, he is severely complexed. He has an unconscious longing to reunite with his mother in an incestuous relationship. This in fact what cripples him -- his untransformed desire to return to the comforting bosom of his Great Mother. Thus he fluctuates radically between lust and guilt. He would give too much to mother by serving her in a materialistic manner. He is too pragmatic for his own good.

For her he rejects (as he was rejected) lofty abstractions and the impersonal fantasy world of the spiritual father principle. He takes refuge in the mother's realm of matter

(mater=matter). Really, he seeks the spiritual transformation both of his body, and by indirection, all matter. He seeks what he didn't have--a father. As the projection of Hera's inner masculinity, he embodies the process of change or psychic transformation in his twisted, paradoxical body, which is half maimed, half robust.

He has the introverted personality of a cripple. His lame foot reflects his mother-complexed soul and his spirit's structural damage. Unlike the "handicapable," his spirit is where he is truly crippled. He is a son with an absent, rejecting father. Therefore, he vows to remain earthy, the very salt of the earth, with no celestial traits or aspirations.

He must turn inward to hidden resources for comfort. In his introversion, he is always willing to go to the depths of the unconscious (realm of the Great Mother). He feels comfortable and "at home" in subterranean depths of the subconscious. Since he had to be self-sustaining, he learned to prefer solitude, and is somewhat withdrawn and remote. His underground fire smolders with unresolved resentments.

So, as well as the physical representations like mechanics and technology, Hephaistos is with us in such expressions as introversion, depression, union activity, and Marxist philosophy. Perhaps, most psychologically interesting, he is the motivating force behind the transformative processes of alchemy, which are steeped in cryptic protocols.

Hephaistos, like THE HERMIT, seeks his illumination from within. The secret impulse emerges as a vision which he holds to its manifestation in reality. It is a practical philosophy based on what works. His is one archetypal means of executing one's Will. Wisdom, prudence, and circumspection guide the will. He is fertile in his own particular way, which in its ultimate sense manifests as the fulfillment of THE GREAT WORK. He shares the alchemical world (the mysteries of life) and goals with Mercury, or Hermes.

Prometheus stole fire from the gods -- the fire of technological or scientific knowledge. For this infraction he was chained to a mountain and his liver was pecked at for a seeming eternity. We see it in the growing pangs of the digital revolution: "*We will create a civilization of the Mind in Cyberspace. May it be more humane and fair than the world your governments have made before. . . .*" (John Perry Barlow). "*One of the digital world's most valuable commodities is the luxury of being nobody - not somebody different, but nobody in particular*" (Nicholas Negroponte, *Wired Magazine*, Oct. '98).

PHYSICAL FORM

As primal fire, we find the expression of Hephaistos not only within the suppressed fires of volcanoes, but also within petroleum and its result, the greenhouse effect. The unleashed fires of technologically created nuclear energy reflect his split nature. Hephaistos turns a blind eye to the toxic shadow-nature of his creations. These unforeseen or ignored consequences are his pathologies played out in matter.

He is the evolutionary anomaly, technological man. Just as the Great Mother prevents spiritual possibilities from emerging, so has our cultural bias for technology at any price banished the philosopher from certain areas of knowledge. Hephaistos seeks to proliferate, creating more and more artifacts and innovations, rather than unifying information into a coherent whole, and taking responsible action.

By encouraging specialization, Westerners have become mentally crippled--taught to think in a narrow and restricted manner. Our experts are really over-specialized professional corporate robots. Hephaistos rejects his expansive father's philosophical worldview for a pragmatic materialism. But technological man has a secret spiritual goal--to transform science and thereby transform himself.

Hephaistos, the master technologist, is adroit at imitating the natural creative process of his mother, nature; the forge emulates the fiery womb. His artistic creative nature, apes or mimics the generative force of life. He seeks his own way of fathering offspring on the mother (matter).

A couple of examples will make this assertion more clear. First, this Hephaistian imperative has culminated historically in the military-industrial complex. This is his creative effort channeled into producing the deadly machinery of war, though he tends to shy away from conflict, unlike his brother Ares. Hephaistos forms a politico-economic conspiracy with Hera, and his combative brother Ares, and Hera's overachieving hero, Hercules. They seek to dominate through force, inadvertently serving yet succumbing to the patriarchy of Zeus.

Technological man has extracted the secret of atomic bonds from matter. When a nuclear bomb explodes, the energy (E) locked in the mass (m) radiates at enormous speed (C²). Conventional war has traditionally been considered "good" for business, but this is obviously not the case with nuclear war. But for years the "nuclear threat" has been big business--the so-called defense business, (offense business).

Another toxic example of the Hephaistian shadow is the greenhouse effect, the result of the burning of fossil fuel. Pollution ranges from the drilling site to the refinery, to the milling of steel for cars, which create 20% of the excess carbon dioxide in the atmosphere. This canopy traps heat. Carbon dioxide molecules trap infrared waves which would otherwise radiate back into space from the earth.

Other graphic cases of Hephaestian mimicry may be found in the fields of biology, biochemistry, and molecular biology. Fundamental to all these is the science of chemistry which is directly descended from the psycho-physical science of alchemy. If the physical archetype for Hera is the principle of molecular bonding, the Hephaestian chemist seeks to delve into his mother's deepest secrets. At the same time he seeks spiritual fathering by seeking recognition for his work. The biochemist literally imitates his mother by aping nature's creative process in research on recombinant DNA.

In ancient times, Hephaistos's creations were praised for being so "life-like." Today, biopolymers like DNA (genetic substance) can be synthesized by these scientists at will. They may be manipulated in many ways for the desired result. We are on the verge of hybridizing our vegetables with fish genes, and other weird genetic amalgamations. Thus, the biochemist produces his offspring as a single-parent, through a "virgin" birth, much as Hera conceived Hephaistos.

Through a process known as parthenogenesis, a female may produce offspring alone, but this child is invariably female. This shows the self-generating power of the Great Mother.

Physically, this power is represented in our human bodies by plasmids. Plasmids are bits of genetic substance which float freely outside of the main genetic repository. They are transmitted to any one individual through the mother only. They are donated strictly from the egg. Thus, plasmids come only through the matrilinear line of descent.

In unisex reproduction, exactly the same genetic information is passed to each daughter cell, or clone. No fresh characteristics can be inherited. Through technology, almost any gene--from a virus to a frog to a man--could be spliced into a plasmid. It is then inserted into an *E. coli* bacterium, and the transplanted DNA is copied down to the minutest detail. Any product ordered by the inserted genes will occur in the offspring. Thus bacterium are created, such as interferon, and oil-digesting enzymes.

Recently fertility hormones have been cloned, also. Recombinant DNA has produced two human fertility hormones. The hormones are polypeptide chains which must have sugars added to them in order for the hormone to be biologically active. Bacteria can't produce these, so molecular biologists have "grown" them in mammalian cells. These clones tend to be unstable, creating defects in replication, forming an archetype of imperfection.

Another echo of Hephaistos in science is the newest advanced weapons system being created around super ceramics. Remember how he created Pandora of water and clay? Well, ceramics are neither organic substances nor metals. They are formed of many materials, 90% of which comes from the earth's crust. They are even stronger than metals in many cases, because of unique bonding at the atomic level.

Other unique inventions include a new class of metals with the structure of glass, known as "metallic glasses." Even more amazing are the biochip implants being developed known as nanochips. These are biologically-based computer chips formed of living tissues which would be infinitely faster than today's silicon chips.

Nanotechnology is a new area being developed which makes use of extremely small robotic assemblers, small enough to manipulate not only molecules, but atoms. This is opening up an entire new era in engineering at the subatomic level. The current goal is to build "nanites" which can reproduce themselves--assemblers of assemblers. In *ENGINES OF CREATION*, Drexler outlines many of the possible implications of this fantastic scientific horizon, in health care, weapons, communications, space travel, etc.

Technology is also working at creating a world of its own--VIRTUAL REALITY. These computer-generated simulations, much like the Holodeck on *Star Trek*, create a universe where the programmer is essentially a god within that world, as far as executing wishes which would be unattainable in consensus reality. Uses range from a simple extrapolation of video games to therapeutic application, to virtual sex. Controversy already exists about the possible addictive quality of cyberspace over consensus reality.

For technology, "everything is made of materials;" matter or atoms or living tissues have just become building blocks or components for technological man. We can synthesize most of what Mother nature has made, and are now attempting to create organic computers which could not only plug into the brain, but also copy it. Organic polymers are carbon-based conductors of electricity which could create the "Holy Grail" of science, the ultimate

chip. But despite all the efforts to instill life into these units, will they be anymore than soulless robots?

Science has a rigid, though paradoxical, profile. Technological man is obsessed with time, work, order, limits, learning, history, continuity, survival and endurance. But at the same time he has a phallic drive to inquire, quest, chase, search, and transgress all of nature's limits. This is his pathos, his yearning for that which can never be fully recovered. According to R. Buckminster Fuller, technology models principles from science. A scientific principle becomes technology when someone invents a use for it. Therefore, technology is the popularization of science. It creates gadgets which bring mysterious principles into everyday experience.

Hephaestus can also be imagined in the discarded tissues of stem cell research. The promise and perils of stem cell research have become one of medicine's great hopes, and one of science's greatest political and ethical dilemmas. But often lost underneath the arguments over the promise and peril of stem cell research are nuances that don't fit with all the drama. Despite a growing body of research, no one is sure whether these cells, once taken out of the lab and turned into medical treatments, will match expectations.

Stem cells, in their ability to morph into hundreds of different body tissues, have challenged a central truism of medicine: Organs can't regenerate themselves. A growing body of research supports the tantalizing potential of these cells to create tissue and build organs. Recent studies have found the ability for the cells to form everything from new blood vessels to brain tissue. All 75 trillion cells in the human body originate from stem cells -- unspecialized master cells that mature into specialized cells, or renew cells that die or become damaged.

If these cells could be harnessed in the lab, perhaps they could be employed to help repair the body by renewing damaged tissues in severe disease and injury. Kinds of stem cells include embryonic stem cells, and adult stem cells. Startling progress in using embryonic stem cells has been used to create blood vessels, blood-forming cells, brain cells, pancreatic cells, spinal tissue; adult cells have created heart muscle tissue and blood vessels. Other hurdles are yet to be overcome. Scientists still need to learn how cells make their choices to become a specific organ or piece of tissue.

In "A Dim View of a `Posthuman Future" By Nicholas Wade, (2002), the human mind and body are shaped by a bunch of genes, as the decoding of the human genome seems to underscore. Biotechnologists will one day be able to change both and perhaps, in seeking to refine the imperfect human clay, will alter human nature. That prospect should be worrying a lot more people, in the view of the political theorist Francis Fukuyama, because history's central question "that of what kind of society best suits human needs" has been settled only if human nature remains as it is, warts and all.

Dr. Fukuyama, now at the Washington campus of Johns Hopkins University, is known for his widely discussed book "*The End of History and the Last Man*," published in 1992, a few years after the fall of the Berlin Wall. In it he argued that with the demise of communism, liberal democracy had emerged without rival as a political system with universal appeal. The challengers of this tempting thesis included Samuel P. Huntington of Harvard, who

argued that struggles between the world's major cultural groups would predominate in a post-Communist world.

In his book, "*Our Posthuman Future*," he explores the ways in which biotechnology may change the human essence. Despite his title, Dr. Fukuyama has no taste for a rerun of history and believes a posthuman future is one to avoid. The danger is the greater because those closest to the action, scientists and bioethicists, cannot in his view be trusted to raise the alarm. Scientists are interested in conquering nature while many bioethicists, Dr. Fukuyama contends, "have become nothing more than sophisticated and sophistic justifiers of whatever it is the scientific community wants to do." His views are not academic; he has an official voice on such matters as a member of the White House's Council on Bioethics.

Genetic engineering of the human germline, making permanent changes to the genes in the egg or sperm, would pose the most direct threat to human nature but other techniques bear watching, in his view. Mood changing drugs could change society if taken widely enough, and Dr. Fukuyama says he wonders whether Caesar or Napoleon would have felt the need to conquer Europe if either had been able to pop a Prozac tablet occasionally.

Major increases in human longevity could also be disruptive, he fears, because "life extension will wreak havoc with most existing age-graded hierarchies," postponing social change in countries with aging dictators and thwarting innovation in others. But the most serious threat to the stability of human societies is genetic engineering that may alter, by design or inadvertence, the special balance of contrarities of human nature. Human nature, Dr. Fukuyama argues, "is fundamental to our notions of justice, morality and the good life."

By messing with the human genome in order to enhance intelligence or physique or other desirable qualities, biotechnology may cause us "to lose our humanity" that is, some essential quality that has always underpinned our sense of who we are and where we are going," he writes. Science has had many critics, but Dr. Fukuyama's warnings come from an unusual direction. His father, Yoshio, a sociologist of religion, was an American of Japanese descent who escaped internment in World War II, unlike several other members of his family. Francis grew up in New York, not much exposed to Japanese culture, studying classics at Cornell and political science at Harvard.

He spent the first part of his career as a Sovietologist at RAND Corporation, the research group, and in between stints at RAND, he worked at the State Department. It was in listening to a speech by Soviet President Mikhail Gorbachev that Dr. Fukuyama had the idea for his first book. Hegel, the 19th-century German philosopher, believed history would culminate in a constitutional state or, in modern terms, a liberal democracy, whereas Marx saw a communist state as the likely end point. Hearing Mr. Gorbachev declare surprisingly in a speech one day that the essence of socialism was competition, Dr. Fukuyama recalled in an interview, "I called up a friend and said if Gorbachev was saying that, this is the end of history," meaning that Hegel's prediction had triumphed over Marx's.

Dr. Fukuyama's only expectation of the book he then wrote was that "my political theorist friends would be vaguely amused." But "*The End of History*" was too powerful and hopeful

a guide to the post-Communist world to be ignored. He argued that history was not a meaningless cycle but had a direction imposed on it by the logic of modern science, a direction that "would seem to dictate a universal evolution in the direction of capitalism." Though the advanced industrialization made possible by science and technology does not necessarily lead to political liberty, Dr. Fukuyama wrote, the human desire for recognition, cited by Hegel as the driving force of history, is best satisfied in a liberal democracy.

Though religion and culture can impede modernization, Dr. Fukuyama sees no reason to suppose that the Islamic and other civilizations will not in time adopt their own versions of liberal democracy. "The basic structure of world politics continues to be the juggernaut of modernization as pioneered by the West," he says. The optimism about science that imbues "*The End of History*" is strikingly absent from "*Our Posthuman Future*." Scientists' responsible record of self-regulation is now too undermined by commercial ties to biotechnology companies for the same disinterested behavior to be counted on.

Science and technology gave history its forward direction for the last 500 years, he says, but it is much less certain that biotechnology will be handled with the same wisdom as previous innovations. Dr. Fukuyama says he believes some things should be banned outright, like cloning people, which he regards as immoral in itself and as the opener for worse things, like enhancing human qualities by germline genetic engineering. Dr. Fukuyama plans to devote the next few years to studying how biotechnology should be regulated.

Occupations associated with Hephaistos include the following:

<p>artisan auto mechanic biochemist blacksmith boilermaker carpenter chemist computer geek construction worker craftsman creative genius geneticist engineer forger inventor jeweler</p>	<p>lab technician machinist manufacturer metallurgist metal sculptor miner nanotechnology peacekeeper potter printer robotics sculptor surgeon technocrat vulcanologist welder</p>
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EMOTIONAL IMAGE

Hephaistos, God of the Forge, is the personification of subterranean and terrestrial fire, including human lustiness. The 'volcanic' psychological types combines the functions of sensation and feeling. A graphic example of this primal combination of the fiery furnace and testosterone happened to an art historian friend of mine in Malta when he inadvertently found himself caught in what I have come to call an "archetypal storm," showing how primal these emotions can be. This scene in its primitive setting is essentially unchanged from that of 1000 B.C. In the heat, the sweat, the dirt, and the fire blatantly Hephaistos reveals his primitive essence:

"It reminded me of the experience I had a few months ago while talking technical matters over with a Maltese forger (bronze casting), a not unhandsome fellow with a torn trouser leg which gave a clear view of his tightly fitting jockey shorts. Behind him stood his Arab (?) assistant wrapped in cloths that would have made Charles Dickens falter at describing a shirt taken from a Caravaggio regatzo (sp?) and a sort of wrap around trouser skirt held together with the largest safety pin I've seen outside the circus. He sat behind the Maestro while listening to the conversation which had to be translated to him.

"I haven't the slightest idea of the origin of the behavior, even though I am a psychologist (of sorts) but the fellow started playing with himself and actually succeeded in "coming off" twice in thirty minutes while never taking his eyes off me. I don't know whether the Maestro knew what was going on or not, but in true well-bred Boston fashion I made out that nothing was "going on". The odor of this Ishmaelic semen reached me at three yards so I can only assume that Maestro was aware....which in true psychoanalytic fashion verified the reports I've frequently heard that iron and other metal mongers are notoriously virile. Well, this need for a non-participating, Clinton-like audience for one's sexual display is a metaphor for Bob's literary style." (Henrickson, 2002).

Earthy Hephaistos is the god of the pragmatic working-class man. As such, he promotes the work ethic and unions. As god of the proletariat, he exemplifies the theme, "local boy makes good." He is the archetypal self-made man. He also inhabits the now-outworn myth of the Marxist world, which tried to make a philosophy of materialism. The postmodern version of the proletariat society is cyberculture.

Emotionally, he is introverted, even emotionally crippled from rejection. He is a slow, steady, internal rhythm which allows attention to turn in to subjective states of consciousness. He can be asocial and prefers solitude, being somewhat of a hermit. He doesn't handle interpersonal relationships well, so he throws himself into his work. He appears gauche, childish, or awkward in social situations. He can be uncommunicative or display his anxiety neurosis and over-sensitivity. His overwork produces chronic fatigue. Rage turned inward may lead to depression or numbing out. Reparenting can help.

Hephaistos' introversion doesn't necessarily mean he is shy, but he is definitely introspective. This introspective quality is intimately related to his ability to visualize his artistic inspiration. He must be self-sustaining and tends to get creative rather than bored. The Hephaistian temperament is found in artists and craftsmen, those who live on income from their beautiful productions, and those who live by utilitarian trades such as mechanics, machinists, and welders. Those who are preoccupied in work with their hands,

with earthy, concrete manifestations are also under him. Occupational therapy and practical, empirical, functional-art producers of all sorts are under his patronage.

Hephaistos is not a slender, effeminate artiste, though. He is a robust specimen of his gender, epitomized as the stereotypical hardhat worker. As patron of the bluecollar class, he embodies the restless volcanic spirit which leads workers to strike against the tyrannical rule of their employers. In an industrial society, Hephaistos is embodied in the solidarity of unions.

If hardhats can be characterized as "hardworking and hard-drinking" we might remember the close affinity between Hephaistos and Dionysus, god of intoxication. Dionysus and his wine brings the relief and solace of drunkenness to Hephaistos, freeing him from his normal inhibitions. But he cannot hold his liquor. His fires are loosed as he seeks incestuous union with both the creative and destructive energies of the Great Mother. Thus intoxication can be healing or poisonous to the Hephaestian temperament. He may regressively seek to dissolve in the unconscious depths, annulling his rejection and abandonment by his parents.

Technology is also planning a carefully orchestrated intervention here, giving new meanings to "intoxication." Soon science will be able to alter genes through genetic engineering to change human behavior. But, it will remain difficult for genetic intervention to reach a degree of sophistication where it can produce results as expected. Since every individual is unique, this tampering with embryos contains a great deal of uncertainty.

The more likely route is that more mood- and behavior-altering drugs will be tailored by pharmaceutical manufacturers. It is easier and more reliable to intervene with drug therapy than genetic manipulation of embryos. This is an extremely controversial area of genetic engineering. This research verges on being seen by some as a contemporary taboo.

Technology is in the process of developing new drugs which will have psycho-social uses, for example enhancing personality in such areas as sociability, kindness, sensitivity, cleverness, etc. To gain any wide acceptance, these drugs will have to be free of alarming side effects, such as those associated with today's black-market drugs.

So, any mass-brainwashing through genetic manipulation is unlikely, but populations may also be controlled through emotions by programming and doctrinaire philosophies, such as that of Marx. The Marxist myth was based on its own archetypal perspective of life, which held the vision of a paradisaical future. Marx, himself, was heavily influenced by the German philosopher, Hegel. Hegel's concept of "thesis, antithesis, and synthesis" carries on in the tradition of the Christian Trinity, which echoed Plato's and Pythagoras's thought on the "three-in-one."

Marx felt that human history transformed through this process. Projecting this idea into the future of mankind, Marx came up with a vision strikingly similar to the Christian version. Its major theme states that after an apocalyptic revolution (antithesis), world citizens inhabit a worker's paradise free of oppression by a powerful elite. The workers are the "chosen people," forming an ideal, classless society. In practice this was hardly accurate.

How a new social order arises on the ruins of the old is a recurrent Biblical theme, where the Jews, or the "saved" are the chosen who will inhabit the utopian world (synthesis). Thus the proletariat and the "reborn" have dreams with a common theme. Both share a fundamentalist work ethic; both seek to overcome that which they consider "evil." History has shown that Marxists can be as orthodox in their stance as any religious individual. The shared apocalyptic element of the vision of the world's superpowers was a frightening omen, which has hopefully been averted. Maybe this subconscious realization underlies the epidemic use of alcohol prevalent in both countries.

Keywords associated with Hephaistos include the following:

abandonment	inhibition
acumen	intense
alloy	internal
androids	introversion
anima-possessed	iron
anxiety	irritability
artifacts	limp
birth defect	methodicalness
blow off steam	natural gas
body armor	petroleum
bronze	pragmatic
burly	premature birth
calculation	psychological materialism
child abuse	pyromaniac
club foot	refinement
compensation	refinery
concise	rejection
creative	robotics
craftsman	sensitivity
craftsmanship	skillful
crafts fair	smouldering
criticism	solidarity
crude oil	solitude
engine (internal combustion)	steel
eruption	technological acumen
forge ahead	technophilia
foundling	technophobia
greenhouse effect	trade secrets
ignition	unresponsiveness
industry	volcanic personality
industrious	worry

INTELLECTUAL IDEA

The mythical stories of Hephaistos include three principle themes:

- 1) his unusual birth, including his abandonment and adoption as a foundling;**
- 2) his lameness; and**
- 3) his creative genius, which is embodied in the concept of industry, or intensification of production.**

Even though Hephaistos is mother-complexed by his mother's rejection and desertion of him, he makes the best of his adversity. Even after he tried to help Hera defend herself against the onslaughts of Zeus, she still tried to do away with her deformed son. She despised him, perhaps because he reminded her of her secret inner imperfections, which he embodied in matter.

When spirit becomes "grounded" after falling to the earth, it is impelled to drag itself around by limping. But laming can be an advantage or foreshadow achievement and transformation, as it does for shamans in primal cultures. This tribal theme is re-emerging in technological society as we seek to heal our wounded souls. Hephaistos learns things from his inner self, and develops an interior strength and self-reliance. By exploring his heart and mind he contacts that spirit which is uniquely his own. He gets pleasure from this inner life. He gains inspiration from being alone in nature.

While Hephaistos is centered, he isn't necessarily stable. He tries to compensate--but over-compensates--for his sense of rejection through megalomania. Only alchemy represents "one-footedness" as an accomplishment. But it doesn't feel like one to the individual stuck in this pattern--he feels self-conscious of his hindrance. He tries to overcome his frustration through his creativity, or inward-turning libido through fantasy.

Destiny has limited his mobility, but not his imagination. His immobility binds him to the archetypal realm forever. His need for a crutch seems to have provided him with "something to lean on." Laming also symbolizes the weakness or helplessness of any new enterprise. Will it stand or fall? Only time will tell. Initial difficulties may be overcome through industry or hard work.

Looking for Hephaistos' pattern in a historical context, we find that in the industrial revolution of the 1800s there was an epidemic of negligent and deliberate infanticide due to crowded living conditions and severely limited resources in cities. So many children were being abandoned and left to die of exposure that the English Parliament set up foundling hospitals with revolving boxes in the walls so the abandoning parents could remain anonymous. Due to the financial burden this presented the burgeoning industrial state, 80 - 90% of these children were allowed to die before they were one year old, especially if they were crippled or deformed, like the mythic role-model.

The standard of living didn't rise even when infant mortality rates dropped in later years. Children were valued and helped to survive infancy solely for the labor they could provide in factories, before they succumbed to tuberculosis as adolescents. This era also gave rise to the philosophical economic theories of Malthus and Marx, who may be characterized as obsessed with the laws of reproduction and production. In every era prior to the development of rudimentary birth control methods, an increase in technological change also brought a period of rapid population growth which kept the standard of living approximately the same from medieval to industrial times.

The fossil fuel revolution (remember, Hephaistos = petroleum) brought a substantial increase in labor productivity in such areas as agriculture, mining, and transport. The enormous supply of cheap energy extracted from the inner resources of the earth brought an intensification of production never seen before. But since coal and oil are stored, rather than renewable resources, we now face depletion of reserves, declining efficiency, and the threat of a lowered standard of living. Now it takes more and more money to extract less and less fossil fuel. As profits decline, we must seek alternative sources of energy. It has been calculated that if the rest of the world used energy like the U.S., world reserves would be exhausted in only 11 years. Therefore industry must move in the direction of "making more from less" (as Fuller suggested decades ago) to satisfy world markets.

Psychologically, on the individual level, a man dominated by the Hephaistian pattern exhibits the moodiness of a social outcast. He has mood swings which alternate between depression and ego inflation. He enjoys creativity and the company of women, but his love affairs unfortunately end in disappointment most of the time. Perhaps he doesn't know how to truly love a woman because he was denied a warm relationship with his mother. Her desertion remains his wound, and keeps him insecure about his personal worth. He is mentally crippled by his anguish, but he compensates with an active inner life of fantasy or career success.

In a woman's psychology, Hephaistos may be the motivation for substituting art or work for a personal experience of the woman's mysteries of blood-kinship and birth (or childrearing). This doesn't mean that every woman who opts for employment rather than breeding is an emotional cripple, but she does carry this as an active component of her personality. It may manifest as a nagging criticism or guilt, in moments of introspection. Her feminine naturalism may mourn for an unborn child, and is the perspective which considers her productivity rather than reproductivity as monstrous or offensive.

Cyberculture is an excellent example of the philosophy of the Hephaestus point of view. In fact, it may represent the mythically abortive rape attempt of Hephaestus on Athena -- now united in Cyber-culture. The culture that has formed among those who use the Internet and other networks to communicate through multimedia, and have formed social groups which meet and interact online and may never meet in real life. Cyberculture has its own customs, etiquette, mythology, and ethics. It has its own science, expressed as semiotics, CTheory, and other buzz-words of New Media.

Cyberculture is broad. It exists within and extends throughout the Internet, the global, computer-based "network of networks" constructed in the 1960s by the United States Department of Defense.(1) Although cyberculture is made possible by the network's wires, cables, servers, and terminals, it thrives where users meet within the wires and upon the interfaces. These online social interactions, or what Allucquere Rosanne Stone calls "virtual systems," are as broad as they are diverse and take place within basic email, newsgroups, reflectors, and listserves, bulletin board systems (BBSs) and Usenet, MOOs and MUDs, Internet Relay Chat (IRC), electronic chat rooms, and interactive sites on the World Wide Web.

Cyberculture is deep. Although it can be as shallow as a single unanswered email, it is often a product of complex and collaborative communicative practices which take place over

varying segments of time and "space." Indeed, within a particularly healthy listserv thread or MOO space or collaborative Website exists dynamic interactions, social constructions, political negotiations, sexual posturing, and institutional histories. Like its in real life (IRL) counterpart, cyberculture resembles a collection of mini-villages, replete with the village idiot, the sage, the argumentative curmudgeon, the idealistic student, and the den mother, not to mention the town hall, the playground, the shopping mall, and back alley.

Cyberculture is in a constant state of flux. Of course, what we call cyberculture today may not exist tomorrow. Like other new technologies, computer-mediated communication technologies are evolving at an incredible rate. As mainstream America, not to mention the world as a whole, continues to embrace and integrate basic Internet technologies into their personal and business lives, we can expect even more innovations. Thus, just as email and listservs dominated the Net from its induction and through the 1980s, Gopher altered organizational structures in the early 1990s, and Web browsers such as Mosaic, Netscape, and Internet Explorer completely transformed the Net from a text-based platform to one incorporating various types of media, so too can we expect new and dynamic technological advances to redefine what we call the Net. More importantly, we can expect original individual and collective applications of those developments to reinvent what we think of as cyberculture.

Cyberculture is broad, deep, and in a constant state of flux. Assuming this is true what hopes can we hold for understanding what cyberculture is, locating its boundaries, and determining its characteristics? Before we get intimidated by such a daunting task, we must keep in mind that in many ways these are the same questions facing other, more traditional students of culture such as anthropologists and sociologists. After all, all cultures are broad, deep, and in a constant state of flux.

Significantly, it is much easier to put forth a number of dimensions of cyberculture than a single definition of it. Too often, the term is used to describe contemporary cultures and/or cultural products that have some relationship with technology. For example, in his book entitled *Escape Velocity: Cyberculture at the End of the Century*, writer Mark Dery conflates cyberculture with "computer-age subcultures."⁽²⁾ Although Dery's book explores interesting issues surrounding Internet identities and communities, it also includes chapters on Mark Pauline and Survival Research Labs and tribal tattoo artists. While the book is interesting, it is difficult to ascertain what is cyber about tribal tattoos.

Cyberculture is a collection of cultures and cultural products that exist on and/or are made possible by the Internet, along with the stories told about these cultures and cultural products. Thus, while Dery uses cyberculture to mean computer-age subcultures, I use the term to refer to culture and cultural products that are directly linked to not only computers but, more specifically, the Internet.

One way to better understand cyberculture is to examine its many elements individually. Some facets, including issues of electronic democracy, telecommuting, and the perennial favorite, virtual sex, have become popular topics in the popular media. Other elements such as cyberspace and race, online representations of gender and sexuality, and the political economy of cyberculture are beginning to be addressed by the popular media and

within academic circles. Yet in a feeble attempt to impose a boundary (dare I use the term "containment" with respect to a topic so utterly containless?), I have decided to explore cyberculture in terms of four categories. These categories include cyberculture in context, virtual communities, community networks, and virtual identities. (1996-1997, David Silver).

When Cyberculture and globalization converge, we see again Hephaistos and Athena. In *Global Cyberculture Reconsidered: Cyberspace, Identity, and the Global Informational City*, Martin Irvine Director, Communication, Culture, and Technology Program and Associate Vice President for Technology Strategy , Georgetown University says:

Talking about cyberculture usually means rounding up the usual suspects: adolescents of all ages living out Neuromancer fantasies; online identity morphing in MUDs and chat spaces; virtual communities sustained by Net communication; fascination with cyborg theory and cybersexualities on college campuses and underground websites; magazines like Mondo 2000, Wired and 21.C; speculative and cyberpunk fiction with a finger on fast forward; the global market for multimedia information and entertainment; and the large group of artists, writers, and philosophers who find the Net environment the most interesting place to play, live, think, and create.

Cyberculture has an array of recognized contexts and positions--utopian, dystopian, ironic, postmodern, identity-political, and market-driven opportunist--but these aren't the issues that interest me here. I'd like to disturb the shared, consensual hallucination of cyberculture by thinking about the material conditions of the matrix, specifically the function of imagined communities and the underlying infrastructure of cyberspace in the global informational city. Global cities are the spaces where infrastructure, labor, capital, and information are concentrated; it's where cyberspace happens. In many ways, cyberspatial culture is like the modern spatial city with its segregation of spaces and internal contradictions, only more so. And just as there are resistance movements to urban domination and the multinational corporate culture located in cities, the Net embraces a multitude of local and international anti-globalization movements that use the global technology.

There are at least four ways that the notion of the globalization of culture is used today:

The use of the Net to communicate local, ethnic, religious, and national cultures to a worldwide and international audience. This could be called optimistic multiculturalism on the Net where anyone with access can participate. The worldwide diffusion of dominant cultures through the global marketplace (Western and American cultures globalized through ownership of infrastructure and production), reading "globalization" as another case of hegemony, cultural imperialism, or Americanization.

The general homogenization or "internationalization" of culture, favoring Western developed nations and their languages and values, accompanied by an awareness of a resulting dilution or disappearance of local and minority cultures. In the political economy of communications, the movement toward worldwide access to communications technology and connectivity across territorial boundaries. The goals of global access and ubiquity of the Net require dealing with two forces, one toward technology development and diffusion,

the other toward governmental and institutional controls over international interconnectivity. We are not attempting to describe an object or phenomenon, but trying to track a nexus of relations in real time, reflections on a few themes, rather than a developed argument:

The historical context for the imagined communities and identities in cyberculture and popular myths of globalization. The movements of localized communities and identities that seem to be a backlash to globalization in the networked age (including the paradox of using the Net to promote local, ethnic, and religious politics). Globalization, in one manifestation, is global localization: political groups use the Net to promote local interests and identity politics rooted in very historic place-governed issues like race, nation, territory, and language. Globalization as urban concentration, or networks of global "informational cities," the spaces of economic and political concentration studied by Castells and Sassen. A more appropriate notion is the global city or globalization of cities in a networked economy, rather than cyberspace as an all-inclusive, homogeneous, worldwide, neutral, transnational occurrence.

Let's first consider the idea of cyberculture as contained in the idea of virtual community. Cyberculture often assumes a global virtual community like that described by Howard Rheingold, but the embedded history of the notion of "community" used here is usually ignored in the glimmer of utopia. In most uses, virtual community is based on an imagined, new post-national community sustained by the Net and self-consciously deployed Net applications. The term attempts to resist or ironize globalization in the ordinary sense of international political and economic regimes. The idea of the new, imagined virtual communities of the Net actually has some interesting affinities with, as well as divergence from, the imagined communities of modern nationalism that Benedict Anderson analyzed in his influential study, *Imagined Communities*.

Imagined communities are not imaginary, fictive or unrelated to material, real-world conditions. Quite the contrary: the shared identity of imagined community expressed in a common language and medium of communication is what holds nationalism together, authorizing and validating the political and economic power of a state. Nationalisms were formed through the ability to achieve identity across distances while accommodating internal diversity. Nationalism, which Anderson sees as born with the sense of difference and continuity in New World states, imagines the simultaneity of old and new across geographical boundaries. The identity of difference created by the new states of the Americas was sustained by the communications technologies of the time:

The parallels to imagined global, cybercommunity are clear: as print helped produce the imagined communities of nationalism, the Net generates a new community imagined as post-national. Books and newspapers, formerly at the nexus of national economies and identities, were the first mass market commodities in capitalism. The convergence of computing and telecommunications underlying the Net is the contemporary, international technology for global identities. In the same way that the New World nations imagined themselves as communities parallel and comparable to those in Europe, proponents of the global community of cyberspace see themselves in a community parallel and comparable to the old communities of nations, ethnicities, religions, and geographical cities, but

transcending the limitations of these communities with a new technology that makes place, time, and local governments irrelevant.

The idea of a cyberspatial, virtual community was thus ready to be born in the U.S., where mass media have long been used to support or create "new" community identities structurally dependent on differences from older communities of origin. The imagined post-national "nation of cyberspace," with people like John Perry Barlow leading its cessation, is in many ways an extension of the logic of imagined communities. But as recent research on globalizaton has shown, the role of nation states isn't over. It takes international cooperation to create globalization. We're entering a era of globalized regional and urban economies (Castells, 1: 97-103). The virtual community is this embedded in the political economy of the global informational city.

My second theme is the paradox of global localization. There is an important counter-effect or internal contradiction in our global, Net-based information society: simultaneously with the rise of global networked society there is an increase in national, ethnic, and religious identity politics and the resistances to globalization inherent in these movements. Many of the identity groups represent themselves as explicit points of resistance to a global system of any kind while simultaneously using the tools of globalization (Net communications, Web presence, satellite communications). The trend of global localization would be easy to write-off as a feature of the postmodern condition, the movement from grand unifying ideologies to local politics and identities, from macro to micro. But there's a deeper underlying logic at work.

As Manuel Castells states, "our societies are increasingly structured around a bipolar opposition between the Net and the Self" (1:3):

New information technologies are integrating the world in global networks of instrumentality. Computer-mediated communication begets a vast array of virtual communities. Yet the distinctive social and political trend of the 1990s is the construction of social action and politics around primary identities, either ascribed, rooted in history and geography, or newly built in an anxious search for meaning and spirituality. The first historical steps of informational societies seem to characterize them by the preeminence of identity as their organizing principle. (Castells, 1:22)

Mixed in with the current global wave of technotopia and optimism about the economic and political potential of the Internet, we have parallel movements of political and economic fragmentation, isolationism, and a proliferation of regionalisms.

The Web is now home to a proliferating array of self-defined communities and subcultures who attempt to represent themselves as sites of resistance to globalization. For example, the Intentional Communities website hosts information for the communitarian movement, which has roots in 19th-century utopian communities. The search engine for the site is hosted by gaia.org, an eco-village service, whose "secretariat" is Gaia Villages, Denmark. This movement seeks to build internally self-sustaining, localized communities. Like similar utopian community movements in the late 19th century, the current movements represent themselves as points of resistance to urban, technological, and capitalist ways of living. The forces of the Net--the globalized information economy--are deflected by the

needs of the Self, and the local takes only what it needs from the global, like the Lo-Techs in *Johnny Mnemonic*.

Likewise, the Net now intersects with--and supports--a variety of local language movements. Most notable are the regional linguistic movements in Europe: the Gaelic dialects in Brittany and Ireland, Basque in Spain, Frisian in the Netherlands. As transnational culture dominates, regional ethnic-linguistic identities emerge as counter movements (*New York Times*, Sunday, Oct. 17, 1999, p.4).

The Web is also home to thousands of political activist groups, both local and global. The vast majority of these activist and identity groups follow Castells' description of "primary identity" groups rooted in history, geography, race, and language. "Global cyberculture" as imagined by American cyberpunks seems a precious fantasy in this context.

The Net works in collaboration with satellite and broadcast technologies to support and promote ethnic and religious political movements that run counter to mainstream nationalisms supportive of globalization. But these efforts also instantiate globalization. My final theme is cyberspace as an effect of the global, informational city. Globalization is actually a networked urbanization, a reconcentration of capital, production, and labor in cities as the nodes of the networked economy. Global cities are the nodes of cyberspace, the space of flows embodying the simultaneous concentration and decentralization of people, economic activity, technical infrastructure, communications, and information.

What, then, is cyberspace? Cyberspace is an imagined network layer sitting on top of the physical infrastructure of cities. Cyberspace is an imagined continuous, worldwide, networked city; the global city that never sleeps, always experienced in real time. As Mike Davis, author of the wonderful study of L.A., *City of Quartz*, states:

The contemporary city simulates or hallucinates itself in at least two decisive senses. First, in the age of electronic culture and economy, the city redoubles itself through the complex architecture of its information and media networks... If so, urban cyberspace - as the simulation of the city's information order - will be experienced as even more segregated, and devoid of true public space, than the traditional built city. Southcentral LA, for instance, is a data and media black hole, without local cable programming or links to major data systems. Just as it became a housing/jobs ghetto in the early twentieth century industrial city, it is now evolving into an electronic ghetto within the emerging information city. (Davis, *Urban Dialogue*, May 1997)

Cyberspace is not a disembodied fantasy but is embedded in the material space of global economics and infrastructure. Cyberspatial culture in its current form is a fantasy of a postmodern city, the LA, New York, Hong Kong, and Tokyo of our dreams. Cyberspace is unthinkable today except as networks of global, informational cities.

Cultural globalization, in the sense of the diffusion of cultural productions on the Net, follows the logic of urban concentration in the global information economy. Cyberspace is a segmented and segregated space, much like global cities where IT infrastructure, capital, firms, labor, and services are concentrated. Concentrated urban diversity and decentralized sources of power and value seem to be producing a post-Net paranoia and re-

localization. Fantasies about local sustainable communities, like those of the post-Romantic era over a century ago, happen only with city people.

There are two forces at work in globalization: the spread of the Net internationally follows urban infrastructures, and nations around the world are cooperating in the creation of a global network economy by creating networks of globalized informational cities that require liberalized financial and trade policies. We can interpret the concentration of Internet nodes as a global economic indicator. The last survey of Internet hosts by Network Wizards quantifies these trends: the growth of the Net is strongest in countries with cities that function as network economy nodes.

Further reading on the nature of Hephaistos may be found in the following:

FACING THE GODS, "Hephaistos: A PAttern of Introversion," by Murray Stein
GODS IN EVERYMAN, Jean Shonoda Bolen, M.D.

THE TWELVE OLYMPIANS, Charles Seltman

CELTIC QUEST, John Layard

MYTH AND MODERN MAN, Raphael Patai, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1972; p. 95-104, "The Myth of the Marxist World."

CANNIBALS AND KINGS; THE ORIGINS OF CULTURE, Marvin Harris, Random House, N.Y., 1977, p. 179-190, "The Industrial Bubble."

SPIRITUAL MYTH

The spiritual myth of Hephaistos in our society is the triumph of technology and modernization. But these are the most literal forms of its spiritual essence. In arcane lore, Hephaistos is the archetypal metallurgist or alchemist. Alchemy was the psycho-spiritual science which gave birth to modern chemistry. Alchemy arose among tradesmen who held guild secrets in common. Their silence and secrecy concerning their art showed their prudence, and harks back to the association of this archetype with Trump IX, THE HERMIT.

Alchemy is concerned primarily with the work of refinement, on both the physical and spiritual level--in fact, both are synonymous. The central problem in alchemy is expressed as the spiritual redemption of one's physical body. The practice of the art of alchemy centers on the spiritual redemption of matter and the body. Transforming lead to gold means that there is a process of refinement which applies to mankind as well as to the smelting of ores.

Purifying and tempering the spirit is known as *sublimatio*. This indicates raising, ennobling, or channeling instinctual energies into creativity, both outer (art objects or artifacts) and inner (refining personality, soul-making). Physically, we are seeking to establish a relationship with our bodies and nature which creates optimal health or well-being.

Alchemy is known as the Great Work, because that which "works" is that which has the power to transform. Hephaistos sought to transform himself into an idealized spiritual being devoid of imperfections, much like his rather abstract "father," Zeus. Hephaistos seeks a personal immortality, either through his works or through his Great Work. His

never-ending drive and energy comes from this internal motivating force. As an alchemist he conducts several of his experiments on himself, striving for a union of psyche and matter, or soul with substance.

Alchemy strives for the experience of spiritual rebirth via the union of opposites, such as that represented by the marriage union of heavenly Aphrodite and earthy Hephaistos. Alchemy requires resurrection of the soul of body. The challenge we face as modern alchemists is to "see through" to a unified vision of mundane physical processes with spiritual values. The solution is to visualize the physical body as a metaphor for psychic transformation, such as that described in Jungian psychology.

In alchemy the stages of psychological or spiritual transformation are categorized as specific metals, which correspond with planetary powers. Thus, Saturn=lead; Luna=silver; Sol=gold; Mercury=quicksilver; Venus=copper; Mars=iron; and Jupiter=tin. The dynamic impulse of the original alchemists, modern chemists and physicists is the same. Namely, to find out how God works, and imitate that process.

This Opus, or Work, is understood as taking place in a sealed retort vessel. The nature of this vessel is the origin of the common term, "Hermetically sealed" and it originally referred to the self-contained psyche. This containment insures that none of the ingredients will be lost and also provides a container in which the contents are slowly heated or cooked. This process is called calcinatio. Remember, Hephaistos was a smoldering, fiery principle.

The initial material of the untransformed instincts (prima materia) goes through several stages of refinement, defined as operations. These are not always presented in the same sequence in different alchemical texts. Most however include forms of calcinatio (heating); solutio (dissolving); coagulatio (congealing); sublimatio (ennobling); mortification or nigredo (blackening); ablutio (whitening); seperatio (separating); and coniunctio (uniting). There are also operations of circulating, multiplying, and reiterating.

The body is of vital importance in any alchemical operation. Alchemy insists on the transformation of the instinctual and biophysical phenomena into psychic experience, but it does not seek to "transcend." The feet of Hephaistos are forever embedded in matter, distorting the purely abstract patterning principle of spirituality.

Our modern alchemies--chemistry and technology--have lost their spiritual value, altogether. They have culminated in a system of production intensification based on petrochemicals. Our greed for fossil-fuel technology which drives the machinery of war may obliterate not only our energy reserves but the biosphere itself through the greenhouse effect or nuclear winter.

Myth recounts how Hephaistos created robots, beautiful golden-haired female androids to substitute for human companionship (virtual and cyber-sex?), as well as wheeled conveniences which functioned as servo-mechanisms much like prototypical cars. But, he couldn't manufacture what he desired most ardently--to be loved for himself, as he is. It makes us think of Spielberg's *A.I.*, Artificial Intelligence, and the promise of ersatz "unconditional love" from biomechanoids.

CULTURAL COUNTERPARTS

Vulcan (Roman)
Ptah (Egyptian, fire in the earth)
Agni (Hindu fire god)
Culhwch (Celtic)
Twashtri (Hindu)
Boshintoi (Siberian)

CONTEMPORARY EXAMPLES

Michaelangelo was stifled or lamed in his free flow of creativity by remaining under contract to church authorities who directed the course of his artistic career. He was forced to direct his artistic efforts into commissioned subjects. Even though he painted such masterpieces as the Sistine Chapel, he didn't even like to paint, much preferring the earthier craft of sculpting.

Medieval alchemist and physician Paracelsus founded modern medicine. He invented microchemistry, antiseptics, wound surgery, and homeopathy, and occupational therapy. He combined the mystic and healing arts.

Lech Walesa, leader of Solidarity, was inhibited in his unionization efforts by the Soviet "motherland" while strongly maintaining his link to the Catholic Church, (a variation of the Great Mother, as bride of Christ).

Hephaistos is any crippled or inhibited artist: the dancer who breaks her foot, the sculptor with arthritis, the martial arts master with crushed knees, all blind and maim artists who create with their feet, etc.

Hephaistos can be seen in the lives of such greats as Beethoven with his deafness, and jazz great Charlie Mingus who died of ALS (Lou Gehrig's disease).

KEYWORDS

birth defect, blow off steam, alloy, artifacts, bronze, androids, burly, determination, hung up, creative, craftsman, iron, steel, foundling, foundry, internal, lustiness, skillful, natural gas, petroleum, crude oil, robotics, nanotechnology, refinement, industry, eruption, volcanic personality, ignition, technological acumen, introversion, rejection, solidarity, "forge ahead," psychological materialism, craftsmanship, pragmatic, solitude, limp, club foot, trade secrets, inhibition, internal combustion engine, hard hat, abandonment, mother-complex, cripple, handicap.

DIALOGUE WITH HEPHAISTOS

Seek the aid of Hephaistos for understanding your frustrations, rejections, and woundedness, either of the spirit or physical ailments. If you are extremely extroverted, perhaps this god's extremely introverted nature has been repressed and his voice drowned out by louder drives. Or perhaps he is expressing through symptoms in the body.

If there is a lamed-artist inner aspect of yourself, has the real or imagined handicap thwarted your artistic expression or spurred you on to ever-renewed effort to create? Through Hephaistos the great forms of nature image themselves forth in art.

The well-springs of creativity, which are rooted in the depths of the Great Mother, take a turn in Hephaistos from concrete child-bearing and body-centered sexuality toward the realization of the cosmos as imagination and symbol. The symbol of the furnace itself stands for an "artificial uterus." The Hephaistian passion for creative works are deeply reflective of the mother.

A Hephaistian man will experience certain characteristic problems and issues. He may find himself an outcast from the conventional world of patriarchal values. He may be moody and swing between grandiose fantasies and deep depression. He looks and thinks of himself as unheroic.

He cleaves to the world of the feminine, in his thinking, creativity, and lifestyle. He is fascinated by the mystery of creativity. His inner images hold his soul in thrall to the projects of the moment in which he can completely lose himself. A reductionistic viewpoint might judge him as anima-possessed, or emotionally crippled. His emotions jerk him around.

This pattern may be even more threatening to the feminine ego. Hephaestus connects to her deepest feminine-maternal impulses, yet wants something other than simple maternity. This animus represents a subtle undermining threat to simple, natural feminine creativity, in that he tends toward creating the symbol that mirrors the creative process of nature but produces an artificial product which at once represents and substitutes for the real thing.

Hephaestian creativity can seem monstrous to the feminine psyche because it goes against her natural feminine creativity by undermining or rechanneling it. This affront to feminine naturalism may create a disharmony between the mandates of feminine ego-consciousness and the dynamic of the Great Mother for reproduction.

HEPHAESTOS IN YOUR LIFE

- 1. Have you ever felt rejected or abandoned by a parent-figure? Describe this incident in your life.**
- 2. Have you ever lusted after some aspect of intellectual endeavor (mimicking the passion of Hephaistos for Athena) where your creative capacity in this field was insufficient to realize your goal, and the urge "fell short of the mark"?**
- 3. Have you ever been a member of a trade guild or union? What was the depth of your involvement, i.e. passive or active membership, or did you seek some influential position of authority? What sorts of feelings of loyalty to the cause did the union inspire in you, or not?**
- 4. Have you ever experienced a particularly creative time in your life as the result of a feeling of "woundedness"? How did this creativity manifest?**

5. How do you feel about the high-tech revolution? Are you, for example afraid of (phobic) or totally uninterested in computers, etc. Do you feel they belong strictly to the new generations while you identify with the old ways?

6. Do you allow yourself time for introversion and introspection so that your creativity has an incubation phase which is allotted as much "reverence" as the phase of manifestation? . . .or are you an extroverted "do-demon" who must be constantly on the move or feeling guilty about it?

7. Do you ever notice your moods fluctuating back-and-forth between depression and ego inflation or manic activity? In its extreme forms ego inflation manifests as megalomania, in which the subject exalts himself with grandiose fantasies. This is compensation for feelings of rejection or inferiority in which one tends to magnify or exaggerate one's positive capacities, either privately and inwardly, or externally to the world at large.

8. If the entire world used fossil fuel at the rate of the U.S., world supply would be used within 11 years! Do you do your share to use fossil-fuel technology economically and ecologically? Conservative use of electricity also falls into this category, since some forms of electricity come from the burning of fossil fuel. Are you aware of the potential dangers of the Greenhouse Effect?

9. Nuclear weapons are a modern form of unleashed Hephaestian "fire," a more modern metaphor than volcanic or petroleum fire. How do you feel about the issues of nuclear weapons and nuclear energy, in general, including waste disposal? Many states want to pawn off their waste on other states, much as Hephaistos was rejected and pawned off by his parents.

10. There is a modern colloquial expression--"That is lame," or "That person is really lame," as opposed to "cool" or "with it." Hephaistos is the lame god, the working-class Joe with down-to-earth attitudes, and the pragmatics of survival, even the "oppressed masses." Have you ever been accused of being "lame," or called others "lame"? Can you recall attitudes you've held to which you could apply the term? Did this attitude stem from a sense of woundedness, rejection, oppression or inner hostility?

11. What are you doing with the time you have to yourself? What are you looking for? Or what do you need to know? Who can help you find out? What concerns about time do you have? What do you need to keep silent about? What would be a prudent thing to do? What do you need to complete?

*All powerful Zeus, with his lightning bolts,
Dispenses his favors in enlightening jolts.*

<p> CHAPTER X: THE WHEEL OF FORTUNE</p> <p>ZEUS</p>
--

Zeus is the king of the Gods, and as such permeates the universe with his force manifesting as energy, light, and matter. He is the motivator behind the religious and philosophical urge, particularly metaphysics and natural philosophy. He structures our societies through patriarchy and our individual father-complexes. Offspring of Cronos and Rhea, Zeus is the head of the Olympian Gods and belongs to the trinity of the father-authority principle with his brothers Poseidon and Hades. As the ultimate authority, he comes closest to embodying the archetype of the Self.

The Self is a Jungian term for the Absolute. It is the ordering and unifying principle which guides the process of spiritual development. We sense the quality of the Self when we can envision our future selves actualizing our spiritual potential. The Self is the God-image in our psyches. It represents the fullest extension and potential of an individual, and provides transcendent experience of the highest spiritual value which comes from beyond one's own personal powers. The inner spiritual resources, termed Zeus by the Greeks, lie deep within our inner nature, a metaphor of Light. Zeus is the image of wholeness, presented in the masculine version.

The ancients thought of Zeus as a weather god, the sky god who controlled storms and lightning. However, in our daily life, he also governs our internal weather conditions and may manifest his powers in psychic storms (psychological disruptions).

Zeus is the master of wise judgement and justice. His deep attachment to his daughter Athena personifies his philosophic attitude. Zeus is the prototypical philosopher, or "lover of wisdom." Zeus has the capacity to temper severity with mercy and compassion. He embodies not only the law, but that creative energy which is the constant urge to spill out and propagate itself. His unceasing urge to impregnate and project himself led to his numerous love affairs with mortals and goddesses.

Zeus is that energy constantly striving to realize new consciousness or new fruits of itself, reflecting his all-embracing expansiveness. Self-appointed "followers of Zeus" seek out numerous lovers in accordance with Zeus' principle of wisdom. This doesn't mean that no complications or consequences will follow. Just wait until Hera finds out!

A man with a Zeus-like temperament is very likely in a position of power, leadership, and service in the community. He employs his wisdom and good will when he exercises his authority. He is a man with cultural awareness, and behaves accordingly for the benefit of himself and others. He combines an intelligent, healthy mind with a robust body.

This archetype corresponds with Trump X, THE WHEEL OF FORTUNE. Zeus and other thunder gods have traditional relationships with the Wheel of the Zodiac. This depicts the Game of Life which Zeus plays so well. He uses intuition and systematic thinking to further his aims. This path is symbolized as the palm of the hand. A person who is the seeming master of his own fate or lucky, seems to have the world "in the palm of his hand." Good fortune is a gift of the gods, a gift of destiny.

In esoteric astrology the Jupiter center is linked with the solar plexus. In Indian philosophy, the solar plexus is the power chakra, from which this energy is distributed throughout the rest of the body. It is perceived as an internal whirling force within the

subtle body, and expressed in personality and experience. It is our fate, fortune, or destiny in dynamic action, with its cycles of good fortune and setbacks. It is the activity of evolution. The Jupiter center is roughly in the center of the body and controls higher evolutionary development, through the subconscious. This nerve plexus functions like an "abdominal brain" for physical and visceral processes.

The Wheel is a vortex of force with a stable center. It is the strange attractor of a life--it's destiny. THE WHEEL OF FORTUNE symbolizes the energies of a master field, a universal field. And we access that field through our solar plexus. It is here, not the heart center, where we store our energy, whether that is love and healing, or tension and conflict. We exchange energies with other people from this center also. A negative Zeus-type might be effective, but could also be viewed as bossy, or self-righteous in his authoritarianism. People who set themselves up as moral authorities must dispense judgements. When these judgements are severe, they seem like thunderbolts hurled at a transgressor.

Qabala teaches that the secret of mastering circumstances is to be found in realizing that the center, the very heart of the Wheel, the primary Point of first Unity, is our only safe habitation. When we are identified with the ruling power which keeps us in balance, which keeps the wheeling activities of cosmic cycles in balance, we are simultaneously at the beginning and end of our quest, since they are really the same place.

Zeus-consciousness has to do with the development of a strong, effectively coping ego, which does not tolerate the thwarting of its will. If we fall into an identification with this principle of ego-strength (father-complex), we may find ourselves dispensing similar judgements, as if we embodied the Law.

The shadow-side of this complex is shown, for example, in high-powered politicians who sometimes cross over the line as if they were above the law--a law unto themselves. They rationalize, deny, and delude themselves that the ends justify the means. We are possessed by Zeus when we act like God-Almighty. Identification of the ego with the powers of the archetype of Self results in an ego inflation. The ego gets puffed up with air, acting proud, pompous, vain, and presumptuous. When we are caught in an inflation (ego-trip) our ego tries to take credit for the transcendent qualities of the Self.

This may be overcome by developing a conscious awareness of the transpersonal aspect of the Zeus principle. In its positive manifestation it is an increased capacity for objective judgement. To experience this, the ego must give up its false-pride. Overcoming false pride is a major goal of spiritual development. The original purpose of the "I" or ego is to know the universe. The actual meaning of the word 'Zeus' stems from djeu - meaning the moment or event of lighting up. This is a lighting up, not strictly in the physical sense, but also in the sense of insight and illumination. We get this sense when we dialogue with our subconscious and it yields an answering oracle. This "I-Self" dialogue takes many forms.

Really, there is no distinction to be made between lighting up in the physical or metaphysical sense. The experience of illumination is just as real whether caused by a material source or not. It is Zeus who controls not only the panorama of meteorological phenomena, but also the domain of consciousness. Zeus connects with all the forms of heavenly light, of both inner and outer world. His essence appears as photons (quanta of

electromagnetic energy), lightning, and illumination. He is the archetypal illuminator who "lights up our lives." The type of love which could be described as "lightning striking from above" come in like an electric flash. It is Zeus entering the mortal frame.

The religious view of the natural event we call lightning or lighting up doesn't necessarily require an agent apart from and outside the action. **THE GOD IS THE EFFECT.** This is his epiphany. Such a division of experience into action and agent is excluded by the immediacy of the experience in its first actual moment. Only afterward is there a name attached to the event, and even later an abstraction derived from the experience. For a religious experience, event and man are enough.

According to C. Kerényi (1975), "With the Greeks the event at which 'Theos!' could be called out could happen not only in dreams but also in nature and in history and simultaneously in the additional dimension of spirit."

PHYSICAL FORM

In "Inflation for Beginners", John Gribbin states that no self-respecting theory of the Universe is complete without a reference to inflation -- and at the same time there is now a bewildering variety of different versions of inflation to choose from.

Inflation is a general term for models of the very early Universe which involve a short period of extremely rapid (exponential) expansion, blowing the size of what is now the observable Universe up from a region far smaller than a proton to about the size of a grapefruit (or even bigger) in a small fraction of a second. This process would smooth out spacetime to make the Universe flat, and would also resolve the horizon problem by taking regions of space that were once close enough to have got to know each other well and spreading them far apart, on opposite sides of the visible Universe today.

Inflation became established as the standard model of the very early Universe in the 1980s. It achieved this success not only because it resolves many puzzles about the nature of the Universe, but because it did so using the grand unified theories (GUTs) and understanding of quantum theory developed by particle physicists completely independently of any cosmological studies. These theories of the particle world had been developed with no thought that they might be applied in cosmology (they were in no sense "designed" to tackle all the problems they turned out to solve), and their success in this area suggested to many people that they must be telling us something of fundamental importance about the Universe.

The marriage of particle physics (the study of the very small) and cosmology (the study of the very large) seems to provide an explanation of how the Universe began, and how it got to be the way it is. Inflation is therefore regarded as the most important development in cosmological thinking since the discovery that the Universe is expanding first suggested that it began in a Big Bang. Taken at face value, the observed expansion of the Universe implies that it was born out of a singularity, a point of infinite density, some 15 billion years ago (cosmologists still disagree about exactly how old the Universe is, but the exact age doesn't affect the argument). Quantum physics tells us that it is meaningless to talk in quite such extreme terms, and that instead we should consider the expansion as having started

from a region no bigger across than the so-called Planck length (10⁻³⁵m), when the density was not infinite but "only" some 10⁹⁴ grams per cubic centimetre. These are the absolute limits on size and density allowed by quantum physics.

The first puzzle is how anything that dense could ever expand -- it would have an enormously strong gravitational field, turning it into a black hole and snuffing it out of existence (back into the singularity) as soon as it was born. But it turns out that inflation can prevent this happening, while quantum physics allows the entire Universe to appear, in this supercompact form, out of nothing at all, as a cosmic free lunch. The idea that the Universe may have appeared out of nothing at all, and contains zero energy overall, was developed by Edward Tryon, of the City University in New York, who suggested in the 1970s, that it might have appeared out of nothing as a so-called vacuum fluctuation, allowed by quantum theory.

Quantum uncertainty allows the temporary creation of bubbles of energy, or pairs of particles (such as electron-positron pairs) out of nothing, provided that they disappear in a short time. The less energy is involved, the longer the bubble can exist. Curiously, the energy in a gravitational field is negative, while the energy locked up in matter is positive. If the Universe is exactly flat, then as Tryon pointed out the two numbers cancel out, and the overall energy of the Universe is precisely zero. In that case, the quantum rules allow it to last forever. Unfortunately, if a quantum bubble (about as big as the Planck length) containing all the mass-energy of the Universe (or even a star) did appear out of nothing at all, its intense gravitational field would (unless something else intervened) snuff it out of existence immediately, crushing it into a singularity.

So the free lunch Universe seemed at first like an irrelevant speculation -- but, as with the problems involving the extreme flatness of spacetime, and its appearance of extreme homogeneity and isotropy (most clearly indicated by the uniformity of the background radiation), the development of the inflationary scenario showed how to remove this difficulty and allow such a quantum fluctuation to expand exponentially up to macroscopic size before gravity could crush it out of existence.. All of these problems would be resolved if something gave the Universe a violent outward push (in effect, acting like antigravity) when it was still about a Planck length in size.

Such a small region of space would be too tiny, initially, to contain irregularities, so it would start off homogeneous and isotropic. There would have been plenty of time for signals travelling at the speed of light to have criss-crossed the ridiculously tiny volume, so there is no horizon problem -- both sides of the embryonic universe are "aware" of each other. And spacetime itself gets flattened by the expansion, in much the same way that the wrinkly surface of a prune becomes a smooth, flat surface when the prune is placed in water and swells up. As in the standard Big Bang model, we can still think of the Universe as like the skin of an expanding balloon, but now we have to think of it as an absolutely enormous balloon that was hugely inflated during the first split second of its existence.

The reason why the GUTs created such a sensation when they were applied to cosmology is that they predict the existence of exactly the right kind of mechanisms to do this trick. They are called scalar fields, and they are associated with the splitting apart of the original grand unified force into the fundamental forces we know today, as the Universe began to expand

and cool. Gravity itself would have split off at the Planck time, 10^{-43} of a second, and the strong nuclear force by about 10^{35} of a second. Within about 10^{-32} of a second, the scalar fields would have done their work, doubling the size of the Universe at least once every 10^{-34} of a second (some versions of inflation suggest even more rapid expansion than this).

Curiously, this kind of exponential expansion of spacetime is exactly described by one of the first cosmological models developed using the general theory of relativity, by Willem de Sitter in 1917. For more than half a century, this de Sitter model seemed to be only a mathematical curiosity, of no relevance to the real Universe; but it is now one of the cornerstones of inflationary cosmology. When the general theory of relativity was published in 1916, de Sitter reviewed the theory and developed his own ideas in a series of three papers which he sent to the Royal Astronomical Society in London. The third of these papers included discussion of possible cosmological models -- both what turned out to be an expanding universe (the first model of this kind to be developed, although the implications were not fully appreciated in 1917) and an oscillating universe model.

The inflationary scenario has already gone through several stages of development during its short history. The first inflationary model was developed by Alexei Starobinsky, at the L. D. Landau Institute of Theoretical Physics in Moscow, at the end of the 1970s -- but it was not then called "inflation". It was a very complicated model based on a quantum theory of gravity, but it caused a sensation among cosmologists in what was then the Soviet Union, becoming known as the "Starobinsky model" of the Universe; the news did not spread outside their country.

In 1981, Alan Guth, then at MIT, published a different version of the inflationary scenario, not knowing anything of Starobinsky's work. This version was more accessible in both senses of the word -- it was easier to understand, and Guth was based in the US, able to discuss his ideas freely with colleagues around the world. And as a bonus, Guth came up with the catchy name "inflation" for the process he was describing. There were obvious flaws with the specific details of Guth's original model (which he acknowledged at the time). In particular, Guth's model left the Universe after inflation filled with a mess of bubbles, all expanding in their own way and colliding with one another. We see no evidence for these bubbles in the real Universe, so obviously the simplest model of inflation couldn't be right. But it was this version of the idea that made every cosmologist aware of the power of inflation.

In October 1981, there was an international meeting in Moscow, where inflation was a major talking point. Stephen Hawking presented a paper claiming that inflation could not be made to work at all, but the Russian cosmologist Andrei Linde presented an improved version, called "new inflation", which got around the difficulties with Guth's model. Ironically, Linde was the official translator for Hawking's talk, and had the embarrassing task of offering the audience the counter-argument to his own work! But after the formal presentations Hawking was persuaded that Linde was right, and inflation might be made to work after all.

If there was part of some larger region of spacetime in which all kinds of scalar fields were at work, then only the regions in which those fields produced inflation could lead to the

emergence of a large universe like our own. Linde called this "chaotic inflation", because the scalar fields can have any value at different places in the early super-universe; it is the standard version of inflation today, and can be regarded as an example of the kind of reasoning associated with the anthropic principle (but note that this use of the term "chaos" is like the everyday meaning implying a complicated mess, and has nothing to do with the mathematical subject known as "chaos theory").

The idea of chaotic inflation led to what is (so far) the ultimate development of the inflationary scenario. The great unanswered question in standard Big Bang cosmology is what came "before" the singularity. It is often said that the question is meaningless, since time itself began at the singularity. But chaotic inflation suggests that our Universe grew out of a quantum fluctuation in some pre-existing region of spacetime, and that exactly equivalent processes can create regions of inflation within our own Universe. In effect, new universes bud off from our Universe, and our Universe may itself have budded off from another universe, in a process which had no beginning and will have no end. A variation on this theme suggests that the "budding" process takes place through black holes, and that every time a black hole collapses into a singularity it "bounces" out into another set of spacetime dimensions, creating a new inflationary universe -- this is called the baby universe scenario.

There are similarities between the idea of eternal inflation and a self-reproducing universe and the version of the Steady State hypothesis developed in England by Fred Hoyle and Jayant Narlikar, with their C-field playing the part of the scalar field that drives inflation. Modern proponents of the inflationary scenario arrived at these equations entirely independently of Hoyle's approach, and are reluctant to accept this analogy, having cut their cosmological teeth on the Big Bang model. Indeed, when Guth was asked, in 1980, how the then new idea of inflation related to the Steady State theory, he is reported as replying "what is the Steady State theory?" But although inflation is generally regarded as a development of Big Bang cosmology, it is better seen as marrying the best features of both the Big Bang and the Steady State scenarios.

The theory said that inflation should have left behind an expanded version of these fluctuations, in the form of irregularities in the distribution of matter and energy in the Universe. These density perturbations would have left an imprint on the background radiation at the time matter and radiation decoupled (about 300,000 years after the Big Bang), producing exactly the kind of nonuniformity in the background radiation that has now been seen, initially by COBE and later by other instruments. After decoupling, the density fluctuations grew to become the large scale structure of the Universe revealed today by the distribution of galaxies. This means that the COBE observations are actually giving us information about what was happening in the Universe when it was less than 10-20 of a second old.

No other theory can explain both why the Universe is so uniform overall, and yet contains exactly the kind of "ripples" represented by the distribution of galaxies through space and by the variations in the background radiation. This does not prove that the inflationary scenario is correct, but it is worth remembering that had COBE found a different pattern of fluctuations (or no fluctuations at all) that would have proved the inflationary scenario wrong. In the best scientific tradition, the theory made a major and unambiguous

prediction which did "come true". Inflation also predicts that the primordial perturbations may have left a trace in the form of gravitational radiation with particular characteristics, and it is hoped that detectors sensitive enough to identify this characteristic radiation may be developed within the next ten or twenty years.

Standard models of inflation solve the "monopole problem" by arguing that the seed from which our entire visible Universe grew was a quantum fluctuation so small that it only contained one monopole. That monopole is still out there, somewhere in the Universe, but it is highly unlikely that it will ever pass our way. But Linde has discovered that, according to theory, the conditions that create inflation persist inside a magnetic monopole even after inflation has halted in the Universe at large. Such a monopole would look like a magnetically charged black hole, connecting our Universe through a wormhole in spacetime to another region of inflating spacetime. Within this region of inflation, quantum processes can produce monopole-antimonopole pairs, which then separate exponentially rapidly as a result of the inflation. Inflation then stops, leaving an expanding Universe rather like our own which may contain one or two monopoles, within each of which there are more regions of inflating spacetime.

The result is a never-ending fractal structure, with inflating universes embedded inside each other and connected through the magnetic monopole wormholes. Our Universe may be inside a monopole which is inside another universe which is inside another monopole, and so on indefinitely. What Linde calls "the continuous creation of exponentially expanding space" means that "monopoles by themselves can solve the monopole problem". Although it seems bizarre, the idea is, he stresses, "so simple that it certainly deserves further investigation".

Now comes the suggestion that the "ordinary" place to find observers like us may be in the middle of a bubble in a much greater volume of expanding space. The conventional version of inflation says that our entire visible Universe is just one of many bubbles of inflation, each doing their own thing somewhere out in an eternal sea of chaotic inflation, but that the process of rapid expansion forces spacetime in all the bubbles to be flat. A useful analogy is with the bubbles that form in a bottle of fizzy cola when the top is opened. But that suggestion, along with other cherished cosmological beliefs, has now been challenged by Linde, working with his son Dmitri Linde (of CalTech) and Arthur Mezhlumian (also of Stanford).

Linde and his colleagues point out that the Universe we live in is like a hole in a sea of superdense, exponentially expanding inflationary cosmic material, within which there are other holes. All kinds of bubble universes will exist, and it is possible to work out the statistical nature of their properties. In particular, the two Lindes and Mezhlumian have calculated the probability of finding yourself in a region of this super- Universe with a particular density -- for example, the density of "our" Universe.

Because very dense regions blow up exponentially quickly (doubling in size every fraction of a second), it turns out that the volume of all regions of the super-Universe with twice any chosen density is 10 to the power of 10 million times greater than the volume of the super-Universe with the chosen density. For any chosen density, most of the matter at that density is near the middle of an expanding bubble, with a concentration of more dense material

round the edge of the bubble. But even though some of the higher density material is round the edges of low density bubbles, there is even more (vastly more!) higher density material in the middle of higher density bubbles, and so on forever. The discovery of this variation on the theme of fractal structure surprised the researchers so much that they confirmed it by four independent methods before venturing to announce it to their colleagues. Because the density distribution is non-uniform on the appropriate distance scales, it means that not only may we be living near the middle of a bubble universe, but that the density of the region of space we can see may be less than the critical density, compensated for by extra density beyond our field of view.

There is a simpler solution to the density puzzle, one which involves tinkering only with the models of inflation, not with long-held and cherished cosmological beliefs. That may make it more acceptable to most cosmologists -- and it's so simple that it falls into the "why didn't I think of that?" category of great ideas. A double dose of inflation may be something to make the Government's hair turn grey -- but it could be just what cosmologists need to rescue their favourite theory of the origin of the Universe. By turning inflation on twice, they have found a way to have all the benefits of the inflationary scenario, while still leaving the Universe in an "open" state, so that it will expand forever.

In those simplest inflation models, remember, the big snag is that after inflation even the observable Universe is left like a mass of bubbles, each expanding in its own way. We see no sign of this structure, which has led to all the refinements of the basic model. Now, however, Martin Bucher and Neil Turok, of Princeton University, working with Alfred Goldhaber, of the State University of New York, have turned this difficulty to advantage. They suggest that after the Universe had been homogenised by the original bout of inflation, a second burst of inflation could have occurred within one of the bubbles. As inflation begins (essentially at a point), the density is effectively "reset" to zero, and rises towards the critical density as inflation proceeds and energy from the inflation process is turned into mass. But because the Universe has already been homogenised, there is no need to require this bout of inflation to last until the density reaches the critical value. It can stop a little sooner, leaving an open bubble (what we see as our entire visible Universe) to carry on expanding at a more sedate rate. They actually use what looked like the fatal flaw in Guth's model as the basis for their scenario.

According to Bucher and his colleagues, an end product looking very much like the Universe we live in can arise naturally in this way, with no "fine tuning" of the inflationary parameters. All they have done is to use the very simplest possible version of inflation, going back to Alan Guth's work, but to apply it twice. And you don't have to stop there. Once any portion of expanding spacetime has been smoothed out by inflation, new inflationary bubbles arising inside that volume of spacetime will all be pre-smoothed and can end up with any amount of matter from zero to the critical density (but no more). This should be enough to make everybody happy. Indeed, the biggest problem now is that the vocabulary of cosmology doesn't quite seem adequate to the task of describing all this activity.

The term Universe, with the capital "U", is usually used for everything that we can ever have knowledge of, the entire span of space and time accessible to our instruments, now and in the future. This may seem like a fairly comprehensive definition, and in the past it

has traditionally been regarded as synonymous with the entirety of everything that exists. But the development of ideas such as inflation suggests that there may be something else beyond the boundaries of the observable Universe -- regions of space and time that are unobservable in principle, not just because light from them has not yet had time to reach us, or because our telescopes are not sensitive enough to detect their light.

This has led to some ambiguity in the use of the term "Universe". Some people restrict it to the observable Universe, while others argue that it should be used to refer to all of space and time. If we use "Universe" as the name for our own expanding bubble of spacetime, everything that is in principle visible to our telescopes, then maybe the term "Cosmos" can be used to refer to the entirety of space and time, within which (if the inflationary scenario is correct) there may be an indefinitely large number of other expanding bubbles of spacetime, other universes with which we can never communicate.

LONG LIVE INFLATION. An underdense universe doesn't sink cosmic inflation. Lately, observational astronomers have at last convinced theorists that the universe contains less matter than the theory of inflation predicts. The expansion of the universe, as traced by distant supernovae and radio-bright galaxies, is decelerating too slowly. The mass of galaxy clusters, as deduced from their internal motions and their ability to focus the light of more distant objects, is too low. The number of these clusters, which should be growing if there is sufficient raw material, has changed too little. And the abundance of deuterium, which is inversely related to the total amount of matter, is too high. It seems there is only a third of the matter needed for geometric flatness, the expected outcome of inflation.

But far from killing the theory, cosmologists say, the observations make it more necessary than ever—albeit in a new form. No other theory answers a nagging question in big bang cosmology: Why is the universe even vaguely flat? Over time, the cosmos should seem ever more curved as more of it comes into view and its overall shape becomes more apparent. By now, billions of years after the big bang, the universe should be highly curved, which would make it either depressingly desolate or impenetrably dense.

Guth, now at Stanford University—solved the problem by postulating that the universe went through a period of accelerating expansion. Once-adjacent regions separated faster than light (which space can do—Einstein's special theory of relativity applies to speeds within space). As a result, we now see only a fragment of the cosmos. Its overall shape is not visible yet; each fragment looks flat. Inflation also explains the near uniformity of the universe: any lumpiness is too large scale for us to perceive.

But if observers can't find enough matter to flatten space, theorists must draw one of two awkward conclusions. The first is that some new kind of dark matter makes up the difference. The inferred matter goes by the name of "quintessence," first used in this general context by Lawrence M. Krauss of Case Western Reserve University. The usage alludes to Aristotelian ether; besides, anything that accounts for two thirds of physical reality is surely quintessential.

Quintessence joins the two previously postulated kinds of dark matter: dim but otherwise ordinary matter (possibly rogue brown dwarfs) and inherently invisible elementary particles (possibly neutrinos, if these ghostly particles have a slight mass). Both reveal

themselves only by tugging at visible stars and galaxies. Our fate hinges on what makes up quintessence. The simplest possibility, Einstein's cosmological constant, inexorably gains in relative strength as cosmic expansion dilutes matter. But other forms of quintessence, such as featherweight particles or space-time kinks, might eventually fade away. In May, Christopher T. Hill of Fermi National Accelerator Laboratory speculated that the quintessence mystery is related to another: the neutrino mass. So far the only proof for quintessence is circumstantial. The latest supernova observations suggest that cosmic expansion is accelerating, and recent cosmic microwave background measurements show that triangles may indeed subtend 180 degrees, as they should in flat space.

Two-round inflationary theory was developed in 1995 by two teams: Martin Bucher of Princeton University, Neil G. Turok, now at the University of Cambridge, and Alfred S. Goldhaber of the State University of New York at Stony Brook; and Kazuhiro Yamamoto of Kyoto University and Misao Sasaki and Takahiro Tanaka of Osaka University. In this theory, the first round creates a uniform mega-universe. Within it, bubbles—self-contained universes—spontaneously form. Each undergoes a second round of inflation that ends prematurely, leaving it curved. The amount of curvature varies from bubble to bubble.

The second idea, announced in February by Turok and Stephen W. Hawking of Cambridge, is that the smooth universe gurgled not out of a soda universe but out of utter nothingness. Updating Hawking's decade-old work on creation ex nihilo, they devised an "instanton"—loosely speaking, a mathematical formula for the difference between existence and nonexistence—that implied we should indeed be living in a slightly curved universe. Finally, maybe the universe has an unusual topology, so that different parts of the cosmos interconnect like pretzel strands. Then the universe merely gives the illusion of immensity, and the multiple pathways allow matter to mix together and become smooth. Such speculation dates to the 1920s but was dusted off two years ago by Neil J. Cornish of Cambridge, David N. Spergel of Princeton and Glenn D. Starkman of Case Western Reserve.

Like all good cosmological theories, these ideas lead to some wacky conclusions. The bubble and ex nihilo universes are infinite, which quantum laws forbid. The solution: let the universe be both infinite and finite. From the outside it is finite, keeping the quantum cops happy; inside, "space" takes on the infinite properties of time. In the pretzel universe, light from a given object has several different ways to reach us, so we should see several copies of it. In principle, we could look out into the heavens and see the earth.

More worrisome is that these models abandon a basic goal of inflationary theory: explaining the universe as the generic outcome of a simple process independent of hard-to-fathom initial conditions. The trade-off is that cosmologists can now subject metaphysical speculation—including interpretations of quantum mechanics and guesses about the "before"—to observational test.

Out of all this brainstorming may emerge an even deeper theory than standard inflation; by throwing a wrench into the works, observers may have fixed them. Upcoming high-resolution observations of the microwave background and galaxy clustering should be decisive. But if not, cosmologists may begin to question the underpinnings of modern

physics. "If the experimental data is inconsistent with literally everything, this may be a signal for us to change gravity theory—Einstein theory," Linde says. (George Musser).

As king of the gods, Zeus also represents a fundamental universal principle. Just as Zeus is the offspring of Cronos and Rhea, so energy is the product of frequency (rhythm) and duration. Einstein expressed relativity through his famous equation, $E = MC^2$.

What is the most fundamental component of existence? An examination of the physical nature of Zeus reveals the metaphysics of existence. The theory of general relativity asserts that geometry is produced by matter or matter by geometry. One never appears without the other in isolation. Ian Barbour describes the dependency of matter upon duration. He says that "time is constitutive of the being of atoms as vibratory patterns; a wave or musical note requires time in order to exist--a note is nothing at an instant." Another physicist, Werner Heisenburg describes matter as energy and vice versa. He claims, "Energy is in fact the substance from which all elementary particles, all atoms and therefore all things are made, and energy is that which moves."

If Zeus is perceived as energy, he is this essence of manifest reality. Energy transmutes into matter when it takes on the form of an elementary particle. It manifests itself in a form. Matter and energy are actually a paradoxical unity. In relativity theory, matter-energy is viewed as a distortion in the structure of space. At this juncture, it is perhaps wise to reflect upon the discipline of science itself as a search for patterns and intelligibility. This is precisely the arena of philosophy and metaphysics.

The ultimate metaphysical task is to synthesize all facets of human knowledge into one grand unified field theory of existence (a mathematical overview). The trend now appears in the scientific community as a fascination with the psycho-physical aspects of energy.

Reality is a holistic gestalt which appears alternatively as space, time, energy, matter, and causation. Most evidence indicates it is a biographic projection of mind. These abstractions of human categorizing are not absolute qualities or entities of reality itself. But the basic nature of material existence certainly influences biological systems. Organic growth is a function of geometry and includes spatial relationships and ratios. Living systems create order from disorder, but must always battle against disruption, entropy, or chaos. No system is self-sufficient. Therefore, order is maintained by bringing in energy (i.e. food, air, water) from outside. The biochemical system has to exchange matter with its environment all the time.

Lyll Watson describes how a complex entity also begins to exchange information with the environment in addition to energy. This essential survival information "arrives in three forms--electromagnetic waves, such as light; mechanical pressures, such as sound; and chemical stimuli, such as those giving rise to taste and smell." In animals and humans, these three types of signals are all converted by sense receptors which are in direct contact with the environment. When the stimuli contacts the receptor, an electrical impulse (electrical energy) carries the message into the central nervous system. Hermes, electrical message, is a son of Zeus, archetypal process of "lighting up."

Occupations associated with Zeus include the following:

administrator authority figure banker boss captain of industry chauvinist director father governor king landholder magnate mentor	philanderer philosopher politician president principal priest producer publisher role model scholar stock broker tyrant weatherman
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EMOTIONAL IMAGE

It is no semantic accident that the term 'inflation' is also applied in human psychology as a term for grandiosity. 'Omnipotent' power motivations of all kinds are symptomatic of inflation. Edinger (1972) gives "spells of anger" as examples of arrogant inflated states -- a misapplied attempt to coerce the environment. He cites the dictionary definition as "Blown up, distended with air, unrealistically large and unrealistically important, beyond the limits of one's proper size; hence, to be vain, pompous, proud, presumptuous." He describes the term as the identification of the ego with the divine properties of the Self, "a state in which something small (the ego) has arrogated to itself the qualities of something larger (the Self) and hence is blown up beyond the limits of its proper size."

We are all born into inflation due to our original unconscious fusion when the unformed ego is all Self. In this identification, the ego imagines itself virtually as a deity. This state of wholeness or perfection is reflected in the basically round figures found universally in the art of young children. Variation yields circles with crosses or eight divisions, sometimes swirling like swastikas -- all ancient symbols of the thundergods, including Zeus. Thus, the original condition is depicted as mandala-like roundness, as reported of primeval man by Plato in the *Symposium*. Such mandala symbols are also considered therapeutic or healing.

Nostalgia for this experience of oneself as the center of the universe can lead to subsequent problems and alienation. Reality-checks help the ego grow and distinguish itself from unconscious identity with the Self, yet epiphanies or reunions of the two foster integrity. In psychosis, this is the root of heroic-inflation -- conviction that one is God, Jesus, Napoleon, Joan of Arc, Messiah-complex, etc. by attaching private significance to outer events which are independent of one's convictions. In negative inflation, one identifies with the divine victim; too much humility is also arrogance. The psychic dangers of inflation and alienation have been always been recognized in folk wisdom and spiritual practice.

Both very high and very low self-esteem rest on defense mechanisms. The narcissistic viewpoint rarely leaves psychophysical Zone 1 of "I, me, mine." A grandiose self craves narcissistic gratification and attention. The antidotes to this narcissistic inflation (unmistakable and often unpleasant increase in self-confidence and conceit) are empathy,

humour, wisdom, selfless service, and transpersonal commitment. Kohut's theory of narcissism considers creativeness to result from a successful transformation of this primal libido.

This creativeness arises from within and does not include dabbling in this and that as a dilettante. It means being truly multi-faceted, expressing activity of the soul that deserves to be called truly creative and productive (Jacoby, 1991). It is a mirroring of the cosmic creative process, an expressed creative potential. Through rapport and empathy we detect complex psychic configurations. Empathy, rather than projection, is how we can best relate to others. 'Narcissistic hunger' reverses this and constantly demands our empathic response. When rapport and empathy break down we fail to meet the reality of the other.

Depression or despondency is the result of lack of self-value, and has been identified by Berne and Perls as a psychological "racket," designed to garner negative attention. Other symptoms are exaggerated modesty, wearing a stricken and misunderstood look. These attacks from within are feared and compensated by attempts at manipulation of others, better met through positive validation or unsolicited stroking, and a harmonization of competing forces seeking a centering of the whole personality. In order to be effective and expressive, we need some measure of psychic maturity. Empathy, for example, requires a stable, yet flexible ego.

Humour, the ability to honestly laugh at oneself as one is, genuine tolerance of our imperfection, is the antidote to 'narcissistic vulnerability.' Witticisms and sarcasm are not equivalent, but merely defensive. Humour presupposes some awareness of and tolerance of our weak points. The self as God-image plays a central role in the religious dimension. Humor and wisdom together can be profound teachers.

Mentoring and the projections of the 'wise old man' or 'wise old woman' (ego ideals) can help or hinder us finding our own style of wisdom. Projections must be re-owned, and one's own connection to Source nurtured. A false pose of unflinching serenity sacrifices wholeness and psychic equilibrium. Wisdom requires courage -- the ability to continuously and critically question our perceptions of self, others, and world. Wisdom means we perceive the relativity and acknowledge the limitations of all our concerns and endeavors without illusions. Nevertheless, self-doubts and painful fluctuations of psychic balance are intrinsic to even a mature soul's experience of life's flow.

Creativeness depends on an ego that is open and receptive to creative unconscious impulses. Genuine creative expression helps us share our perceptions and point of view with others in a positive way. However, like empathy, it is no guarantee of being correctly understood. It is our means of transforming nature and our nature into culture, by making, constructing, combining. Its purpose is to facilitate the task of human consciousness to carry on actively and autonomously the creative process that lies at our own origin. Creativity helps us process or transform ourselves in times of crisis. Emotionally charged psychic contents are expressed, made to 'matter,' literally.

A creative lifestyle is motivated by the true self and considered rewarding, meaningful -- a connection to psychic liveliness, fluidity, growth and spontaneity. But the creative lifestyle must be balanced with responsibility and duty, not realized by recklessly imposing

destructiveness on others. The opposite lifestyle is arid, meaningless 'compliance,' through the false self. Aesthetic criteria or virtuosity do not apply; the test is whether the product comes from a deep unconscious layer or not, unexpected manifestations which provoke astonishment, strong affect, even defences. They are also not magical messages from above to which we must irresponsibly submit. Symbols of the unknown don't represent one specific course of action. A creative lifestyle helps us confront our problems from the depth of our souls, find creative solutions, build self-reliance and courage, and increase healthy self-esteem.

On the level of human emotional response, Zeus also can be known through the father-complex. Depending on the emotional set and setting of childhood, we may have a positive or negative father image. It is composed of all those things we feel a father should be, and what our personal role models portrayed. The purpose of the father image is to challenge us into further exploration and growth, and he provides the support that helps us meet the challenges of becoming an individual in our own right. A father encourages us to find our place in the world and develop social consciousness. He counsels us to choose a career where we may be effective, and successful.

The positive father complex expresses in an attitude of extroverted enthusiasm for life. With a positive father-complex, we are eager to learn, comprehend, and experience many facets of life. The positive father counsels one to maintain an objective, long-range viewpoint which is based on wisdom and consideration for others. The negative father-complex may appear when the father is absent, or a poor example of the higher qualities of Zeus. This type may be tenacious, and greedy, or grasping. Nothing is ever enough to make up for the loss of spiritual fathering.

He is a counterdependent personality, who needs to remain "top dog" at least in his own mind. He would like to control and own everything, and everyone. He is so arrogant he thinks he must take charge of managing everyone around himself. He is continually motivated, like the positive type, but never seems satisfied with the fruits of his efforts.

Zeus is the paradigm of the "self-made man" who might become workaholic and neglect his family-life. This is ironic since these men frequently see themselves as working so diligently in the service of their families. Today the role of father is no longer confined to being a breadwinner who stays at work for most hours of the day. Males have become more aware of their nurturing capacities. There are implications in the changing role of the father. Now men are encouraged to take nurturing roles, even with their pre-school children.

Even in post-divorce parenting, both father and mothers are staying actively involved in the live of their children. This cultural change is evident in the men's networks which are emerging, and such phenomena as support groups and "paternity leave" for new fathers. Zeus has a love of freedom and independence, but he has a strong sense of commitment to engendering this quality in his offspring.

Keywords associated with Zeus include the following:

AHA!, ambitious, arrogance, alert, achievement, benevolence, comprehension, compensation, conceit, decisive, dynamic, dynamo, eagle, energetic, enthusiasm, enjoyable, egotistical, extravert, expansion,

equitable, extraordinary, experienced, fortunate, father complex, glutton, grand gesture, inflation, increase, independent, leadership, lucky, majestic, magnificent, mercy, nobility, optimism, opportunity, overview, paternal, paternity suit, patronize, powerful, power trip, patrician, prosperity, patriarch, perceptive, philosophical, respected, reason, restless, self-assurance, strong will, success, systematic, shrewd, tryst, wisdom, wholeness

INTELLECTUAL IDEA

Nay, the same Solomon the king, although he excelled in the glory of treasure and magnificent building, of shipping and navigation, of service and attendance, of fame and renown, and the like, yet he maketh no claim to any of those glories, but only to the glory of inquisition of truth; for so he saith expressly, "The glory of God is to conceal a thing, but the glory of the king is to find it out"; as if, according to the innocent play of children, the Divine Majesty took delight to hide his works, to the end to have them found out; and as if kings could not obtain a greater honor than to be God's play-fellows in that game.

Frances Bacon, THE ADVANCEMENT OF LEARNING (1605)

Solomon, known for his wisdom and philosophic attitude, embodied the Zeus-type of personality. Solomon sought an ever-expanding knowledge of God and the universe. He wrote the Song of Songs in his youth, Proverbs in mid-life, and Ecclesiastes in old age. However, none of these sums up the entire philosophical spectrum of his worldview. That summation is the entire effect of the life of this great philosopher on culture.

Intellectually, the Zeus personality may be considered a philosopher, first and foremost. A philosopher delves into the theory or logical analysis of the principles underlying conduct, thought, knowledge, and the nature of the universe. Philosophy is linked intimately to morals and character, and produces a calmness or composure even in the face of difficulties.

Philosophers are "lovers of wisdom" who may be compared to devotees or children of Zeus. Philosophy starts with the a priori assumption that it is superior to all other sciences. A philosophic viewpoint takes a cosmic perspective and uses the imagery of penetrating vision. This lucid understanding is said to confer mastery over daily living and the rest of the phenomenal world. Philosophy works toward unification of perspectives, trying to develop a solid worldview which has an all-embracing coherence. Philosophy has a spectrum ranging from mathematics to mysticism.

Philosophy seeks the razor's edge or balance point between opposites. In their personalities philosophers have an occupational hazard in spiritual pride and sometimes are too pompous in their judgements. Then their pronouncements sound like a clap of thunder and lightning to those whose perspective is a little earthier, (i.e. grounded). Those not gifted (or cursed) with a philosophic bent find the pontifications of philosophers too abstract to be personally meaningful to themselves. But these people are still faced with the fundamental philosophical questions, such as Who am I?, Where do I come from?, Where am I going?. Is there a god?, Does man have an immortal soul, or free will?

Aristotle's *METAPHYSICS* opens with the statement that all men desire by nature to know. But this is by no means a universal truth concerning the intellectual pursuit of philosophy. To be philosophically inclined is not a universal, but an archetypal truth. It is the archetypal perspective of Zeus. Psychologically speaking, Zeus equates with the Self, referred to as the Higher Self in the occult tradition. Those not so philosophically inclined

might understand, but not revere, such abstractions of human thought as principle, law, and axiom. To them the varieties of religious experience and philosophical viewpoints may seem as numerous and promiscuous as the liaisons of Zeus.

It is the philosophic imperative of Zeus to fertilize and make fecund so many areas of existence. The offspring of Zeus are all around us, influencing our belief systems, styles of being, and mundane pursuits. We now live in a philosophic as well as cultural melting pot, where integration, synergy, and synthesis describe the ideal. On the personal level this is a balanced, robust personality. On the group level, it marks a healthy community or society.

We can tap into Zeus' wisdom for personal guidance in our daily life. Zeus was not only considered an abstract Olympian god, but also a daimon (or mediator) on a personal level. In other words, he (the Self) functions as an inner guide for the mortals who call on him. His realm involves the entire cycle of human fate; he is the determiner of destiny, delivering what we have earned through our actions. As dispenser of human fate, Zeus reigns like an almighty god.

We contact Zeus when we can "see through" the events of our daily lives to a more fundamental level. On the psychological level, Zeus appears as the "meaning" which lights up the happenings in our lives. For great events, there is a correspondingly profound insight. Sudden insight may be compared to a quantum leap in consciousness.

For example, an insight concerning the nature of Self might be to "see through" to the paradox that the self, which represents wholeness, is not necessarily only good or noble. Since it is all things, from highest to lowest, it also embodies that quality known as pure self-centered selfishness. As a king, Zeus is wholly concerned with actualizing his own will, and from this comes the ability to be beneficent and compassionate, to give of himself. He must, however, enjoy his freedom, untrammelled by societal conventions, or he ceases to be Zeus!

The paradox of Zeus is that he has developed a serene, philosophical attitude, while indulging in his most capricious whims, all the while being a hen-pecked husband! This is a very difficult situation for Westerners to comprehend. But the Zeus-energy is limited and held in check by the other gods. When Zeus becomes too impressed with his own abilities to mediate the opposites, his wisdom can turn to folly and an excessive conceit.

Philosophy can be the basis of a personal and social worldview. Philosophy is not just intellectual curiosity, but functions as a meta-culture. A listing of the chief types of factors which influence the cultural behavior of man reads like a keyword correspondence for Zeus and his concerns.

These include: hunger, sex, self-defense, power, possession, fear, unseen powers, law, custom, hope, self-respect, position, achievement, need for fun, companionship, concern for other, need for children, exercise of skills, appropriate degree of social, political, and individual freedom, appropriate degree of tradition, knowing where one stands with respect to each of the above, role and goal of man. John Oulton Wisdom (1975) classifies these as follows: "environmental, bodily needs, political, religious, legal, social, human relations, gambling, ideals, identity, knowing the system."

Different philosophies have different goals since they are based on specific value systems. But most philosophies, from the early days of Greek thought have had to contend with the problem of universals, essences, and categories. This problem boils down to the question: "Is a universal a word, or a conception in the mind, or an essence in a natural object?" No problems are articulated without the existence of a human being. Philosophy is concerned with the dynamics of comprehension and comprehensibility. Zeus represents our primordial awareness and alertness from which philosophy begins. The area where physical and non-physical (or psychic) merge is the human mind.

Just what is the mind, and what gives it the ability to think a thought? We needn't even resort to philosophy for an answer. Modern neurology posits the seat of the mind deep in the brain stem. This higher portion of the stem constitutes approximately 1% of the total brain and is known as the Reticular Activating System, or RAS, for short. The RAS is fundamental to the support of life. It is even more critical than the cerebral cortex, whose removal is compatible with survival under the proper circumstances. The main function of the RAS is the regulation of arousal. It controls all sleeping and waking cycles, and also the "emotional brain" or limbic system.

The RAS also coordinates incoming and outgoing signals regulating the physical functions of the spinal cord and autonomic nervous system. Even though more recent evolutionary developments, such as the cortex, seem to be the 'seat of consciousness,' the 'mind' originates in this ancient formation. The RAS is critical in the production of motivational and emotional feelings. Appetites, emotional effects, and feelings of interest all spring from this mechanism of arousal. The brain contains many separate mechanisms, each of which is activated through electrical currents passing along its circuitry of insulated nerve fibers. Thus many separate functions are simultaneously coordinated through the RAS.

Passage through the higher brain stem (diencephalon) may change the quality or intensity of an incoming signal. The RAS may inhibit or reinforce sensory messages changing the reception of the signal or message in the thalamus and cortex. This purpose of the RAS is functional integration. Man is an instinctual robot without the RAS, capable of no decisions, will, memory, or humor. It is still a mystery where the mind (RAS) gets its energy since nerve cells are either activated or paralyzed. Some neurologists do not believe that the arousal comes strictly from neuronal activity in the brain.

It is easy to deduce, however, that the mind focuses attention, is aware, reasons, and decides with understanding. No analogous point has been found in the cerebral cortex which can be stimulated to function with electrodes. There can be no artificial stimulation of belief or decision with an electrical charge. The RAS "lights up" the brain with mind. Consciousness (mind) is an integrative function roughly equivalent to "coherence" in light (i.e. laser).

Philosopher, Bertrand Russell expressed an interesting philosophical viewpoint on 'thought' in his **PRINCIPLES OF SOCIAL RECONSTRUCTION**:

Men fear thought as they fear nothing else on earth--more than ruin, more even than death. Thought is subversive and revolutionary, destructive and terrible; thought is merciless to privilege, established institutions and comfortable habits; thought is anarchic and lawless,

indifferent to authority, careless of the well-tried wisdom of the ages. It sees man, a feeble speck, surrounded by unfathomable depths of silence; yet it bears itself proudly, as unmoved as if it were lord of the universe. Thought is great and swift and free, the light of the world, and the chief glory of man.

This seems most true when that thought originates in the higher aspect of our being--the Self, rather than from our wounded personality complexes. Jung noted the paradoxical nature of the Self as the center and circumference of the psyche--its center and symbol of wholeness--the integrative function. The ego originates in the Self and is fulfilled through relating to it as a source of nurture.

The self brings structure and archetypal order to the inherent chaos of the psyche--it organizes and directs the psychic process, much like a musical conductor. The Self strives to realize itself, with or without conscious awareness on the part of the personality. It has its own agenda, and can appear like an alien being, thing, or consciousness when we project its power outside ourselves.

The self is the author of our sense of fate or destiny. If our ego identifies with it too much, we go on an ego trip, claiming transpersonal powers for our puny self. Jung defined the Self as the archetype of the God-image in the psyche, noting that is all we can ever directly apprehend of God, in any event. Only after direct experience of the image do our minds create interpretation, speculation, dogma, or denial of the numinous experience.

Jung alleged that God can be known directly through the symbols of the Self, listening to the voices of the soul. God is immanent in the depths of the psyche, the transpersonal realm. God is everywhere as Self in universe, nature, and man in this animistic perspective. The Jungian process of individuation helps to raise the God-images into conscious awareness, stimulating an I-Thou dialogue between ego and the Self.

The Self also has a shadow-side--the dark side of God--because it is a paradoxical unity. Zeus exemplified this shadow side, acting out his Will no matter what. This shadow of archetypal good, which is archetypal evil creates a challenge for the individuating ego. This is an inherent part of the heroic quest, and leads to humility. The Self appears when we need transpersonal guidance to balance the ego and unconscious perspectives, restoring psychic health.

Further reading on Zeus and related topics may be found in the following:

ZEUS AND HERA; ARCHETYPAL IMAGE OF FATHER, HUSBAND, AND WIFE, C. Kerényi, Princeton University Press, 1975.

CELTIC QUEST, John Layard, Spring Pub., Dallas, 197 .

THE WOUNDED WOMAN, Linda Leonard

PHILOSOPHY: ITS PLACE IN OUR CULTURE, J.O. Wisdom

PHILOSOPHICAL THEORIES, M.L. Ambrose

THE GAMESMEN: THE NEW CORPORATE LEADERS, Michael Maccoby

EARTH FATHER/SKY FATHER, Arthur and Libby Coleman, Englewood Cliffs, N.J., Prentice-Hall, Inc., 1981.

FATHER, CHILD, & SEX ROLE, Henry Biller, Lexington, Mass., Heath Lexington Books, 1971.

FATHER FEELINGS, Eliot Daley, New York, William Morrow & Co., 1978.

A MAN'S PLACE: MASCULINITY IN TRANSITION, Joe Dubbert, Prentice-Hall, 1979.

A BOOK OF MEN, VISIONS OF THE MALE EXPERIENCE, Ross Firestone (Ed.), Stonehill Publishing

Co. New York, 1978.

FIRE IN THE BELLY, Sam Keen

IRON JOHN, Robert Bly

THE FATHER BOOK, PREGNANCY AND BEYOND, Rae Frad, et al, Acropolis Book, Washington D.C., 1981.

THE ROLE OF THE FATHER IN CHILD DEVELOPMENT, Michael Lamb, John Wiley & Sons, New York, 1981.

FATHERS, Ross Parke, Harvard University Press, Cambridge, 1981.

MEN AND MASCULINITY, J. Pleck and J. Sawyer (Eds.), Prentice-Hall, Englewood Cliffs, NJ, 1974.

THE MYTH OF MASCULINITY, Joseph Pleck, MIT Press, Cambridge, MA, 1981.

FATHERS, MOTHER AND SOCIETY, R. Rapaport, et al. Basic Books, Inc., New York, 1977.

FATHER JOURNAL, David Steinberg, Time Change Press, Albion, Ca., 1977.

THE FATHER'S ALMANAC, S. Sullivan, Doubleday & Co., New York, 1980.

John Gribbin, Companion to the Cosmos, Weidenfeld & Nicolson, London, 1996.

True to the spirit of Zeus, this reading list is excessive compared with the others, and contains some interesting archetypal correspondences. For example *PHILOSOPHY; ITS PLACE IN OUR CULTURE*, links Zeus and Athena (Culture) and is written by Wisdom. *THE FATHER BOOK* is published by Acropolis Books; there's Athena again. Books about men by women show that Zeus is within us all.

SPIRITUAL MYTH

This life of yours which you are living is not merely a piece of this entire existence, but is in a certain sense the "whole;" only this whole is not so constituted that it can be surveyed in one single glance. This, as we know, is what the Brahmins express in that sacred, mystical formula which is yet really so simple and so clear: TAT TVAM ASI, this is you. Or, again, in such words as "I am in the east and in the west. I am below and above, I AM THIS WHOLE WORLD.

Ervin Schoedinger, "My View of the World"

Zeus has a metaphysical nature since he represents the wholeness described through the personalities of the other gods of the pantheon. He is the center of the pantheon and, therefore, represents the whole universe of manifest phenomena. He is the father of Athena, Artemis, Apollo, Hebe, Ares, Persephone, Hermes, Dionysus, The Muses, Herakles, the Graces, the Fates, and the Hours, etc.

Zeus is the metaphysical nature of the universe. Just what is metaphysics? It is a branch of philosophy which studies that which is beyond physics. It deals with first principles, seeking to explain the nature of being and the origin and structure of the world. Logic studies the elements and functions of intelligence, but metaphysics studies being and its essential properties. When we have absorbed the knowledge available through studying physics, the next logical step to examine is metaphysics. Thus, we formulate our worldview through knowledge and belief.

Metaphysical thinking is not vague and speculative, but precise and straightforward. It describes the foundations of our belief systems, disclosing our a priori assumptions, or assumed truths. We all base our worldviews on "assumed truths," therefore each of us embraces a metaphysical viewpoint which has a paramount influence on our lives. Metaphysics has been criticized as nonsensical or occult by scientists, and heretical by the religious establishment. In reality, it is neither, seeking merely to disclose the

presuppositions of our belief systems, from its unique relative perspective. It describes the most general features of our existence and seeks to unify the various domains of value and fact.

Myth is a metaphysical system. Our beliefs about the nature of existence are conditioned by the mythic level of psyche. Myth can be viewed as a preliterate form of science, through which culture was transmitted. Mythic cosmologies, including the latest scientific theories, deal with the descent and ascent of man, echoing the deeper truths of existence. Myths embody a universal meaning with multiple levels of interpretation. Myths describe cosmological truths because they are in rapport with the fundamental workings of the cosmos. Cosmologies describe the descent into matter of primal universal entities. They use symbols since there is no other language for describing the ultimate nature of things, and symbols are the descriptors spontaneously produced by the human psyche in archetypes, myths, and dreams.

Physicists substitute mathematical formulae, but this is another type of symbol which stands in the place of reality. Numbers, and mathematics, are an artifact of human culture, a human translation of the archetype of cosmic ordering processes. They may give scientists an occasional flash of genius, which is like a stroke of lightning, but it only illuminates a small portion of the path. Physics is actually a school of philosophy--natural philosophy. We may look at physics' view of "reality" as a modern myth. An examination of the creation myth, as described by physics yields interesting perspectives when compared with the Greek cosmogony.

The overthrow of Uranus, the Sky God, by Cronos and Gaea through his castration fulfills the basic postulate of perpetual transformation. Cronos is the principle of determinism whose function is to regulate not only his father, but his children. Zeus escapes the regulation of Cronos and escapes determinism through his progeny. He uses strategy to escape the laws of Cronos (space-time). In the world of light there is no time, space, or mass. Photons have complete freedom.

The Uranus-Cronos-Zeus cycle describes the generation of the universe. First there is Mater, matter or substance or mass, known as Gaea. She is impregnated by Uranus, the original evolutionary impulse, who is characterized as the Starry Heavens. Cronos castrates Uranus, delimiting him. Cronos (spacetime) thus represents the law of limitation, and embodies duration, chronicity, and chronological order. This implies death, for all forms which come into being, must cease or dissolve at some time.

Zeus escapes being eaten by "Time" through the strategy of producing numerous offspring, of great diversity. Zeus is the expanding universe, whose nature is observable through Doppler shift. The evidence for an expanding universe comes from observation of receding galaxies. Galaxies twice as far away are receding twice as fast, etc., as if all had started from a common point with different velocities about 14×10^9 years ago.

But the Greek creation myth did not begin with Zeus. It begins with Chaos--Void Space--which can be viewed as a vacuum with random fluctuation (the random element). From this egg of the universe was born the cosmogonic Eros, the God of Love, or primal

attraction. This Eros may also be described as the dominating force in the large-scale dynamics of the universe--Gravitation, the force of attraction which is the curvature of the structure of spacetime. Even though Zeus represents the unity of the superior progenitor, he is limited by the other gods, as myth shows. Our modern myths of existence may be "seen through" from the archetypal perspectives of many gods.

An imaginal description of archetypal reality discloses Zeus as ENERGY, which can manifest as LIGHT. As radial energy, Zeus is expansive. $E = hf$ means that energy (E) equals the frequency of the light emitted (f) times Planck's constant (h). This formula gave birth to the quantum age. When an atom is split mass is converted into energy. Zeus is a "quantum god." Recall the lament of Einstein that "God doesn't play dice with the universe." On the other hand, Zeus is inexorably linked with gambling, risk, play and the uncertainty principle. Zeus is a restless force. The speed of light is constant and it has no rest mass, because it never rests. The velocity of light is therefore a universal constant--the same everywhere all the time.

The unstable vacuum, known as Chaos, is not simply the absence of matter, but a complex system, within which matter can arise through random fluctuation. This is probably conditioned by deterministic chaos operating in quantum fluctuation, translating the virtual energy of scalar fields into observable energy events. Once matter (substance, the velocity-independent factor in momentum) arises, the dynamics of the vacuum lead to our present expanding universe. It grows slowly till it reaches the critical mass for expansion. Once expansion begins from any point, more matter is automatically created, which induces more expansion, etc.

Zeus is thus the "Big Bang", or the entire inflationary scenario of expansion and evolution (Universal Mind). $E=mc^2$ means that as a particle's energy increases so does its mass. More simply, it is speculated that light twists on itself to create matter. We come from light and return to light. An electron is a photon, or a quantum of action frozen into mass. Light is an enigma since it has no rest mass or charge. Light never rests; it is restless. It is pure action. Light appears in whole units of action which lose no energy. Light accounts for all energy exchange at atomic and molecular levels. Both action (light) and matter come in whole units, which are indivisible.

Unimpaired, light follows the principle of least action, along geodesic world lines. Since light is quantized in photons, light is pure action, and action comes in wholes. Wholeness is inherent in the nature of action, the nature of Zeus, and the nature of Self, and God. The Creator is not separate from the Creation in natural philosophy.

Quantum physics, like religion, reveals first causes. Arthur Young (1976) asserts that Light = quanta of action = wholes = first cause. Photons have total freedom since they are independent of spacetime, and are at the top of the causal chain.

We can trace the Big Bang backwards through physics. As we go backward through time, the temperature gets hotter and hotter. As matter (atoms) get superheated, it becomes a plasma because the heat makes violent collisions between atoms. They can't hold together. So matter consists of nuclei and loose, unbounded electrons. Before the plasma stage, even nuclei couldn't hold together, so matter existed only as energetic particles. Even earlier in

creation the particles couldn't hold together, and matter could only exist as quarks. Prior to that, conditions are so intense that of the four basic forces (gravity; electromagnetism; strong force which bonds nuclei; and weak force such as radioactive decay) the electromagnetic and weak forces merge, leaving three forces.

Still earlier, the even greater temperature melded the strong and electromagnetic-weak interactions, leaving only two forces of gravity and the fused strong-weak-electromagnetic force. We are approaching the limits of physics which postulates at Planck Time (10⁻⁴³ second) all forces unify. To describe this unified condition, physics needs to develop a theory which marries quantum mechanics to the laws of general relativity which describe gravitation. This theory of quantum gravity would be a grand unified theory of the creation.

The Greeks defined relationships among archetypal principles through a pantheistic viewpoint. Thus we might contemplate other physical archetypes and their relationship to Zeus as energy and light. For example, grandmother Rhea might be rhythm, harmony, resonance, or the phenomena of beats. Themis embodies physical laws, conservation, and action/reaction. Hera symbolizes (molecular) bonding. Thanatos is the principle of entropy. Entropy is ever-present, just as death in the soul is concurrent with daily life. Hades can influence us through radioactive decay which can be an invisible destroyer, mutating our genes. Poseidon is characterized as a sea-god. He could correspond with wave fronts (amplitude). He is described as a wave function, wave packet, or tidal field, or the ocean of dark matter and energy. Hestia's fire is described by the laws of thermodynamics. Electromagnetism is a hermaphroditic entity. Electricity = Hermes; magnetism = Aphrodite. Hermes also governs synchronicity which is the meaningful congruence of mind and matter. Flow is the confluence of mind and matter.

Apollo is thermonuclear fission by which our sun creates light. Artemis is resonance, which manifests on the human level as empathy. Artemis/Apollo as twins symbolize polarity, + or - charge. Mars = force, which is mass accelerating. It is tangential energy or vector quantity. Kinetic energy is momentum which is equivalent to mass x velocity. On the human level it is exertion or aggression. There are other correspondences for natural philosophy. To understand is to transcend.

On Thundergods and Thunderbolts. The universe is governed at a fundamental level by electromagnetic forces. Virtually every culture has preserved memory of a "thundergod," a towering and tumultuous figure whose modus operandi is the generation of lightning and the hurling of death-dealing thunderbolts from the sky. A prominent character in ancient pantheons, shaman rites, and religious iconography, the thundergod often doubles as a god of war. The Inca god Illapa is a case in point: "Lightning in Inca religion was the major theophany of the weather god, known as Ilyap'a, now usually hispanicized to Illapa...Illapa was also the god of war, of trade, and god of death. It was represented as a constellation outlining a man wielding a club in his left hand and a sling in his right."

One of the most popular gods in North America is the so-called Thunderbird, described as a towering bird spanning heaven. Numerous tribes preserve traditions of the bird that hurls lightning from heaven, bringing destruction and fire: "The well-nigh universal American conception of the thunder is that it is caused by a bird or brood of birds—the

Thunderbirds. "The concept of the thunderbird exists in Gran Chaco, in Ecuador, and among the Caribbeans on the northern coast of the continent.

The Egyptian Min offers an early example of the thundergod, his defining symbol appearing already on predynastic pottery and rock art tracing to the fourth millennium BCE. In addition to serving as a god of storm and war, Min also featured prominently as an agent of fertility. The ancient Semitic thundergod Hadad/Adad, whose name is thought to be cognate with Arabic haddat, "thunder," was likewise represented as a warrior.

Illustrations of the long-haired and bearded god holding an axe and/or lightning are common throughout ancient Mesopotamia. Early epithets of the god, including Bir-qu, Lugal-ri-ha-mun, and Mer-ta-i-mu, identify him as the lightning, King of the Hurricane, and thunderer respectively. Adad is elsewhere represented as a promoter of fertility, a pattern we will discover in other thundergods around the world. Thus, an Assyrian prayer invokes Adad as follows: "thunderer, splendid, mighty god, terror, doughty warrior, who wields lightning, master of the deluge...you make abundant greenery."

The most familiar example of the thundergod is the Greek Zeus, whose resemblance to Hadad was commonly acknowledged by the ancients themselves. Although the cult of Zeus was subject to profound evolution, often to the extent that his original nature was largely obscured, the portrait of the god offered by our earliest sources is consistent and it conforms to that of an agent of thunder, lightning, wind and rain. It would also appear likely that the archaic Zeus was a god of war. Burkert describes the Homeric Zeus as follows:

"Zeus, according to his Homeric epithets, is the cloud gatherer, the dark-clouded, the thunderer on high, and the hurler of thunderbolts; in colloquial speech one can say 'Zeus is raining' instead of 'it is raining'; in Imperial times children were still singing, 'Rain, rain, O dear Zeus, on the fields of the Athenians...A direct epiphany of Zeus is lightning; wherever it strikes, a sanctuary is set up to Zeus Descending, Kataibates. It was as a thunderbolt that Zeus laid his fatal embrace on Semele. The thunderbolt...is the weapon of Zeus which he alone commands; it is irresistible, even gods tremble before it, and enemies of the gods are utterly destroyed when it strikes; in the face of such a manifestation of divine energy, man stands powerless, terrified and yet marveling."

In ancient Europe the thundergod occupies a prominent place in early pantheons. The Norse Thor was both thunderer and warrior. The god's name, cognate with the OHG Donar and Anglo-Saxon Thunor, derives from proto-Germanic *Thunaraz and signifies "thunder." Words formed with the god's name signified the weapons hurled from heaven. In Swedish lore, for example, thunderbolts were known as thorrbygg or thorkil.

The Finnish god Ukko shares numerous features in common with Thor. He, too, produces the thunder and lightning while controlling the weather. The word ukko, like its diminutive ukkonen, came to signify "thunder." It has long been recognized that Thor finds a close parallel in the Lithuanian Perkunas/Latvian Perkons, the latter god described as riding across the sky in a fiery chariot. The Slavic Perun offers an obvious cognate of Perkunas. Of the former god, it is known that his name came to signify a thunderbolt: "In Slavic, perunu designates both 'thunderbolt' and 'thunder-god'."

Russian folklore describes Perun as a great dragon-slayer. Parjanya, a thundergod of ancient India, offers yet another cognate to the Baltic Perkunas. The Rig Veda paints a terrifying picture of the god: "He smites the trees apart, he slays the demons: all life fears him who wields the mighty weapon." Parjanya is described as wheeling about in heaven in his chariot, dispensing the fertilizing rains: Parjanya is elsewhere identified with Indra (8:6:1), the prototypical example of the Indo-European thundergod. Indeed, the Vedic hymns describing Indra offer the most comprehensive portrait we have of the archaic thundergod. It is Indra who is said to have created the lightnings of heaven. The Divine Warrior's devastating thunderbolt is the subject of countless hymns in the Rig Veda.

One of the more curious beliefs surrounding the lightning holds that it emanates from the region of the sun or, more specifically, from a sky-god's eye. This idea is well attested in ancient Greece, where it was believed that Zeus could produce lightning from his eye. Aeschylus, for example, wrote as follows of the Greek thundergod: "The jealous eye of God hurls the lightning down." The same conception is implicit in Euripedes' *Bacchae*: "Unveil the Lightning's eye."

Numerous scholars have observed that the image of Zeus casting lightning from his eye corresponds to a widespread belief. In Hindu tradition, for example, Shiva was said to have been capable of throwing lightning from his third eye, located in the center of his head. Association of the swastika with the sun-wheel is right on target, Thor's weapon elsewhere being described as a fiery wheel. The connection between the (ancient) sun and the swastika is universal in scope. The following tradition from the Ofo Indians of Florida is a case in point: "The Ofo called the swastika design *ila tata*, or 'Sun middle.'

A closely related conception views the lightning as generated from the "wheel" of the ancient sun-god. The Lithuanian Perkunas, for example, is said to have obtained his terrible weapon in the following manner: "The source of the lightning is the sun, the heavenly fire: the Thunder-god gets fire from the solar wheel by rotating his lightning-club in the nave of the solar wheel." Thundergods are frequently linked to wheel-like objects in ancient art and ritual. A krater from Lecce shows Zeus set next to a wheel. In addition to his thunderbolt, the Latin Jupiter was frequently depicted together with a wheel in Celtic iconography. The Celtic Taranis, whose name signifying "thunder" is cognate with that of the Norse Thor, is likewise pictured together with a wheel, prompting Green to state with respect to Celtic iconography that "the thunderbolt was a recurrent associate of the wheel-sign." Also relevant here is a fact noted earlier: that Thor's thunderbolt was expressly compared to a fiery wheel. A wheel, especially a flaming one, is the symbol of thunder, of Donar."

The Greek Zeus was likewise intimately associated with the World Pillar. Cook summarizes the evidence surrounding the Italian cult of Zeus at Tarentum as follows: "Sacrifices were offered on pillars to the lightning-god Zeus Kataibates—a practice which, as we saw, had probably been inherited from 'Minoan' times. Apulian and Campanian vases, also, represent Zeus fulminant on the top of a pillar. Altogether, it looks as though there were in south Italy an old belief that Zeus with his lightnings dwelt on high above an obvious tangible pillar, his vehicle and support."

The Greek hero Prometheus, whom Servius described as obtaining his fire from the sun's wheel, was said by Diodorus to have been the "inventor of the fire-sticks, from which fire is kindled." Arthur Cook, while disavowing previous attempts to link the Greek hero's name to the Sanskrit term pramantha, "fire drill," would nevertheless relate the latter term to an epithet of Zeus's: "it is highly probable that pramantha the 'fire-drill' does explain Promantheus, a title under which Zeus was worshipped at Thourioi."

A universal belief finds the thunderbolt (or lightning) regarded as a fertilizing force. Indeed, the idea is so common in ancient myth and modern folklore that it is usually taken for granted as if it somehow makes sense in terms of the customary behavior of lightning. The thunderbolt's striking the earth, together with the accompanying rain, is thought to "fertilize" or "inseminate" the earth. The Desana Indians of Colombia, for example, hold that "lightning...is a fertilizing force that impregnates the earth with its crystal-semen." More precisely, the lightning is regarded as the Sun's ejaculation or semen or, with specific reference to the latter's eye, as a "fertilizing glance."

Nearly every Old World thundergod doubles as an agent of fertility. Marija Gimbutas described the Lithuanian Perkunas as follows: "The earth is barren until the Thunder strikes her in the springtime—until in his epiphany of thunder Perkunas weds the Mother Earth, Zemyna." Such beliefs, according to Gimbutas, "are universal [among the Balts and Slavs] and certainly stem from very early times." Ancient conceptions of the thunderbolt as fecundator or impregator, some of which survived well into modern times. Thus it is that Thor was frequently invoked at weddings, the god's thunderbolts forming a prominent feature of many a bridegroom's attire: "In certain parts of Norway and Sweden, it continued to be the custom for a bridegroom to bear an axe at the wedding long after Thor was forgotten; the weapon was said to give him mastery, and also to ensure a fruitful union."

A widespread tradition locates the thundergod at the center or "heart" of heaven. Thus, the Semitic thunderer Adad was said to roar in "the heart of heaven," the latter site being that wherein the ancient sun-god both "rose" and "set." Similar ideas are apparent in the Finnish cult of Ukko. An interesting epithet of the god's was "navel of the sky," thought to link the thundergod with the polar region or Pole star itself. The Navaho thundergod Nayanezgani is likewise said to have lived in the center of the world. So, too, is the Vedic Parjanya, described as follows in the Rig Veda: "Parjanya is the Father of the Mighty Bird: on mountains, in earth's centre hath he made his home." The Quiche thundergod Jurakan was called by the epithet U C'ux Caj, "Heart of the Sky." Jurakan was the highest deity in the Quiche pantheon and he was credited with being the "source of all energy and life in the universe." Indeed, it was his union with the earth that initiated Creation.

The cyclone, a term that originated from the Greek *kyklos*, meaning 'wheel' or 'circle', and was modified to *kykloma* that signifies 'wheel' or 'coil of a snake', is defined as 'a storm or system of winds that rotates about a center of low atmospheric pressure clockwise in the Southern hemisphere and counterclockwise in the North...The tornado, from Latin: *tornare*, 'to turn in a lathe', and also influenced by the Spanish words *tornado*: 'turned' or 'returned' and *tronada*: 'thunderstorm', is a 'violent destructive whirlwind accompanied by a funnel-shaped cloud...' Most significant is the intimate relationship between the

whirling winds and an "eye-like" or "wheel-like" form, reminiscent of our earlier discussion of swastika-forms.

To sum up our survey of thundergod lore to this point: the thundergod is inextricably associated with the ancient sun-god, in ancient myth as well as in sacred iconography. The god's lightning is said to emanate from the region of the sun or from a celestial eye. We are not the first to notice this connection between the sun and the thundergod. Morris Jastrow, the great Assyriologist, observed that: "In many mythologies the sun and lightning are regarded as correlated forces." Arthur Cook, similarly, concluded: "The sun-god has much in common with the thunder-god."

CULTURAL COUNTERPARTS

Jehovah, I AM (Hebrew)

Brahma, Indra (Hindu)

Jupiter (Roman)

Amoun-Ra, Osiris (Egyptian)

Woton (Nordic)

King Arthur (Celtic)

Sun Pin, Lei-kung (Chinese)

Marduk (Babylonian)

Quetzalcoatl, (Aztec)

Great Spirit (Native American)

CONTEMPORARY EXAMPLES

All of the great philosophers world-wide, including Pythagoras, Plato, Socrates, Aristotle, Confucious, Lao-Tzu, etc. The sagacious King Solomon; King Henry VIII of England with his numerous wives.

More recently, the economic "aristocracy" such as the Morgans, Rockefellers, Vanderbilts, and Kennedys, even Bill Gates. Any corporate entity or leader is an embodiment of Zeus.

A few years ago, the television show *DYNASTY* typified a whole pantheon of characters. Zeus, was Blake Carrington, Captain of Industry. His shrewish ex-wife Alexis was Hera. His father-obsessed daughter Fallon was an Athena. The son-in-law Jeff was Apollonic. Krystal was a combination of Aphrodite and nurturing Demeter. The long-lost son, Adam, was a shadow-ridden Trickster, linking him to Hermes.

R. Buckminster Fuller is a brilliant example of the Zeus-personality. This magnificent mind was an interdisciplinarian and whole earth citizen. He maintained great interest in both the abstract realm of geometry and structure plus the environmental world of daily life. His many works, especially *SYNERGETICS 1 & 2*, summarize his physico-psychosocial work concerning optimal efficiency and cooperation.

Donald Trump revealed his philandering shadow-side. Sultan of Brunei is the richest man in the world. The head of the federal exchange commission has been called the most powerful man in the world because he controls the value of U.S. currency, thereby controlling world trade situations.

KEYWORDS: power, control, direction, administration, executive, financier, magnate, sexy, desirable, goal-oriented, inflation, lucky, extravert, egotistical, lottery, success, decisive, leadership, independence, energetic, fortune, fortunate, wealth, intuition, flux, systematic thinking, authority, respectable, honorable, refinement, richer life, opportunity, grasp, comprehension, reward, solution, achievement, attainment, solar plexus, comprehension, compassion, religion, vortex of force, expansion, destiny, beneficence.

DIALOGUE WITH ZEUS

We can tap into Zeus' wisdom for personal guidance in our daily life. Zeus was not only considered an abstract Olympian god, but also a daimon (or mediator) on a personal level. In other words, he functions as an inner guide for the mortals who call on him. His realm involves the entire cycle of human fate; he is the determiner of our unique individual destinies, delivering what we have earned through our actions. Are we empowered, or disempowered? As dispenser of human fate, Zeus reigns like an almighty god.

We contact Zeus when we can "see through" the events of our daily lives to a more fundamental level. On the psychological level, Zeus appears as the "meaning" which lights up our personal experience. For great events, there is a correspondingly profound insight. Sudden insight may be compared to a quantum leap in consciousness.

Zeus can be a wise and philosophical father figure for us--mentor, role model, and authority symbol. The purpose of the father image is to challenge us into further exploration and growth. He provides the support that helps us to meet the challenges of becoming an individual in our own right or becoming whole.

If we lacked this guidance as a child, we may have to re-father ourselves. A father encourages us to find our place in the world and develop social consciousness. He counsels us to choose a career where we may be effective, and successful.

The positive father-complex expresses in an attitude of extroverted enthusiasm for life. With a positive father image, we are eager to learn, comprehend, and experience many facets of life. The positive father counsels one to maintain an objective, long-range viewpoint which is based on wisdom and consideration for others.

Seek the philosophical objectivity of Zeus, his insights, and divine wisdom. Seek his paternal nurturing. He symbolizes the archetype of the Self or Universal Mind manifesting in individuals as their fullest extension and actualization of potential. He is pure creative energy. Mass is "crystallized" energy. We come from Light and return to that Light, according to the testimony of physicists and mystics, alike. Meditate on that Light, and become it.

ZEUS IN YOUR LIFE

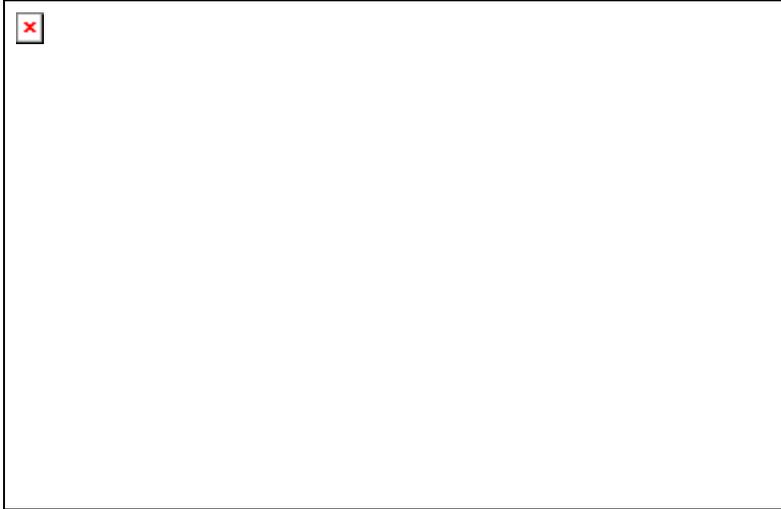
- 1. Do you feel empowered or disempowered in your life; does your personal authority spring from internal or external sources?**
- 2. Have you ever suffered at the shrewishness of a jealous, vindictive spouse?**

- 3. Do you set certain limits on your personal freedom? Are you conscious of what they are? Are you accountable to others? Examine where these limitations might come from, i.e. fear or shyness from Persephone, fidelity from Hera, consistency and reliability from Athena, etc.**
- 4. Do you believe we have any free will as humans, or do you believe in immutable destiny or fate? How can you contact your True Will as Zeus, or the higher Self?**
- 5. When our ego or personality identifies with the unlimited power of Zeus, it puffs-up to unrealistic proportions. Zeus is associated with expansion or inflation. With a positive Zeus identification, we expand our horizons. With a negative Zeus identification we go on a terrible ego-trip. How does Zeus affect you positively? Describe the biggest "ego trip" you've ever gone through, and what eventually burst your bubble (ego death).**
- 6. Are you philosophical by nature? Which philosophy-of-life or philosophical school do you feel closest to in attitude? Perhaps it is a religion. Who is (or was) your favorite philosopher?**
- 7. If you can remember "lighting up" with a sudden insight, describe it briefly.**
- 8. Do you think you have enough confidence and self-assurance, or are you self-defeating? Call upon your inner Zeus-potential to develop your will, intuition, reason and leadership capacities.**
- 9. Zeus embodies many of the qualities of a guru. Have you ever followed a wise teacher whom you revered as a role-model?**
- 10. Do you have a strong religious spirit? How does it affect your behavior (restraint, justice or fairness, etc.) and emotions (compassion, guilt, faith, love, etc.)?**
- 11. Can you describe your personal metaphysical viewpoint by examining the foundations of your belief system, or worldview? What are the underlying assumed truths of these beliefs you embrace? Who are you? Where do you come from? Where are you going? Perhaps you hold a metaphysical interpretation of a major religion, such as Christianity or Judaism.**
- 12. Do you produce many "offspring," new fruits of creative projects, either physical results (like art) or metaphysical (like bright ideas)?**
- 13. Do you have a weak or strong ego? Are you a "can do" person or do you tend to fall apart in a crisis or allow others to walk all over you?**
- 14. Are you considered judgmental and harsh or fair?**
- 15. How do you react to the realistic and unrealistic expectations of your spouse? If you are a man are you attentive to your children? Were you when they were small? Hera likes a big, powerful man who is competent and successful. However, there is something of the little boy in them, also. How does your inner child balance your Zeus force?**

*Themis, let justice be tempered with mercy.
Condemn none without evidence, never on hearsay.*

CHAPTER XI: ADJUSTMENT

THEMIS



Themis is the daughter of Gaea and Uranus, the Earth Mother, and the Ancient of Days. She is one of the few Titans who survives in full power in the Olympian era of the rule of Zeus. The Greeks saw her as the embodiment of the concept of connectedness. She represents the abstract principle of absolute Justice, Law, or Adjustment. To the Hindus, this is known as the Law of Karma. To the psychotherapist, it means natural consequences.

The psychological drive of this archetype is the force of volition, pranic force, or spiritual power associated with the breath of life. It is an urge toward growth, increase, and personal effectiveness, guided from above. The motto of this stage is that, "Equilibrium is the secret of the Great Work."

The equivalent of this metaphysical principle in psychology is Jung's concept of compensation. The unconscious contains the perspectives on life which balance the conscious attitudes. They are revealed through dreams, moods, and behavior. This interplay of opposites shows complimentary forces balancing one another. This paradoxical union of opposites was reflected in the ancient worship of Themis at her primary cult site, Rhamnus. Her dark or shadow side was also honored there, as Nemesis.

Jane Ellen Harrison, in her definitive work on Themis, traces her back through her history as a matriarchal tribal Goddess. She originally represented an organizing function. For this reason, she remained a trusted counsellor to Zeus. He sought her opinions in matters of decision before, during, and after their marriage (before the arrival of Hera). Their union is said to have produced the three Fates (among others) as their offspring. The Fates spin, weave, and cut the thread of life.

Themis is inevitably linked strongly with her mother Gaea. As a variation on the theme of Great Mother, Themis represented the earth-goddess of unshakable power because she is the absolute, inexorable Law. The undeviating patterns of Themis keep even the gods themselves within certain boundaries.

When Themis is associated with her mother's earthiness she is called Ge-Themis. She is to be distinguished from the agrarian world of growth, which is the province of Demeter. She represents a deeper, psychic "grounding" of an individual, group, or community. Each physical place on earth has its particular cyclic rhythm which strikes a deeper note than the mere passing of seasons. This spiritual ground gives birth to local rituals and laws, which form the basis of cultural distinctions. The governing maternal principle guarantees fertility.

The spiritual side of Themis can be distinguished from the more physical aspects through examining her oracular nature. Themis was known for her mantic powers. As the law of justice, she should certainly be able to perceive the future through extrapolating from cause and effect. Oracles were the most revered form of divination in the ancient world. They commanded great respect and awe.

Legend has it that Themis inspired and informed the priestesses at Delphi. These priestesses sat over a fissure which emitted strong fumes. The fissure was in a cave. Under the influence of intoxicating vapors, the women uttered their prognostications in cryptic language.

Themis received her oracular power from her mother who had the same power. Her mother gave her the oracle at Delphi as a gift. According to myth, she later passed on the patronage of Delphi to Apollo.

Themis also has a heavenly, or celestial character, as head of the "Supreme Court." On Mt. Olympus, she is the one who summons the gods to counsel, even though Zeus presides over them. Themis, however, does preside over all the feasts, or banquets, where group members gather together.

The Greeks held a three-day rite in honor of Themis in October, a month associated with her sign Libra. Known as the Thesmophoria, it is associated with Demeter/Persephone, also. But it also acknowledges Themis and her underlying laws. Like the great oracle at Delphi, the Thesmophoria is associated with a fissure or crack in the earth, opening into the depths.

PHYSICAL FORM

The origins of Themis as Titan of remote times indicates that she is a fundamental component of the materiality of the universe, and an instinctual force in the human personality. Born from Gaea (materiality), she may be envisioned as "the laws of nature" concerning material phenomena. These physical laws are the patterning principles of manifest existence, and human life, as well.

These laws represent the ecology of the macrocosm and microcosm. They are based on efficiency, minimal motion, and dynamic equilibrium. Physical laws include those of

gravitation, planetary motion, angular momentum, motion, inertia, reactions, falling bodies, acceleration, etc. Conservation is a recurrent keyword, such as "conservation of energy," "conservation of matter," "conservation of momentum," "conservation of electric charge," etc.

There are also laws of wave behavior, probability, probable population densities for molecules, and symmetry. These last laws are important for quantum mechanics, which reveals an indeterminate universe distinctly different from the mechanistic Newtonian mechanics of local cause and effect. Though Newton's inverse square law of gravitation seems mechanistic, Newton himself felt it a philosophical imperative to discover the "first-cause" (which is non-mechanical) before deducing causes from effects.

Since the laws of physics seem to be overthrown periodically by new discoveries, how can we trust in the concept of absolute "laws" of nature? Themis underlies reality, patterning matter through dynamic equilibrium, no matter what mankind's current evaluation of her laws may be. When "new laws" are discovered, we are receiving further revelations of Themis. The principle of indeterminacy or uncertainty shows Themis frozen in the moment of judgement or decision, forever on the verge of rendering her verdict.

The principle laws of Newtonian mechanics were published in 1687 and included the following in a definitive concept of interaction:

LAW OF INERTIA: A body at rest will remain at rest, or a body in motion will continue in motion in a straight line with constant speed, unless constrained to change that state by the action of an exterior force.

LAW OF ACCELERATION: Change of a body's motion is proportional to any force acting upon it, and in the exact direction of that force.

LAW OF REACTION: Every acting force is always opposed by an equal and opposite reacting force.

LAW OF GRAVITATION: Every particle of matter in the universe attracts every other particle with a force proportional to the product of their masses and varying as the inverse square of the distance between their centers.

Science still seeks that elusive axiom known as **THE UNIFIED FIELD THEORY** which would unite both mechanistic and quantum models, or classical and quantum physics. Carl Jung might have been commenting on the psycho-physical nature of Themis when he stated that, "If research could only advance far enough. . .we should arrive at an ultimate agreement between physical and psychological concepts."

Themis underlies the laws of thermodynamics:

1st law of thermodynamics = principle of conservation of energy;

2nd law of thermodynamics = entropy (energy converts from more to less orderly form).

Negentropy = Themis = orderly patterning principle.

Occupations associated with Themis include:

attorney
councilman
detective
D.A.
ecologist
judge
juror
librarian
paralegal
physicist
policeman
referee
senator
collective bargainer

EMOTIONAL IMAGE

Continuing with Jung's psycho-physical notion, we find that, "Psyche cannot be totally different from matter, for otherwise how could it move matter? And matter cannot be alien to psyche, for how else could matter produce psyche? Psyche and matter exist in the same world, and each partakes of the other, otherwise any reciprocal action would be impossible." Themis is the principle of reciprocal action.

On the emotional level this translates into the give and take of daily life. We are again confronted with the principle of attraction and repulsion, but in the arena of human relationships, rather than atomic substances.

Themis encourages the development of a balanced personality, one which recognizes both outer (material) and inner (psychic) realities. A balanced personality honors both introversion and extroversion, reserving each for appropriate times and situations. The balanced person divides their time between householder's duties and obligations and spiritual needs.

Themis has a preference for judging, as compared with perceiving. Judging and perceiving types are naturally distributed about 50-50 in the general population. Judging is not synonymous with judgmental, but reflects a style of apprehending reality. Judgers prefer closure to keeping options open and fluid. They feel a sense of urgency before pending decisions, and a sense of ease and satisfaction once it is made.

Judgers establish and work toward deadlines, and expect others to do the same. This can be a source of misunderstanding, since not everyone is driven by a work ethic that supercedes rest and recreation. Their main drive is to get the job done, get the show on the road. Their shadow-side can be critical of other types, accusing them of being aimless or procrastinating. They exert pressure on themselves and others. They may leap to premature conclusions before all evidence is in.

Themis provides a sense of proportion in one's self and life. She represents the strength and force that suspends all action pending decision. She represents the completion of education, once it is followed up with applied effort, action and work.

When all of humankind remained in the sway of Themis, the collective unconscious was so utterly dominant that few thought of transgressing the Law. Besides the threat of being banished or shunned, there was an instinctual inhibition. This was in the Golden Age before religion (Zeus) narrowed the psychic field down to the values of ego-consciousness.

There is a relationship between the law and boundaries, and personal boundaries. This is the basis of respect and propriety. In safe situations, or ritual, it is OK to let go of the boundaries of ordinary existence and experience ecstatic oneness. But the No Boundaries condition is only safe in a society supportive of this state of consciousness and geared to inducing it and guiding the experience, or giving it particular value through initiation. It is direct experience of the transpersonal dimension beyond, and ontologically prior to ego-consciousness. It is the realm of "natural law" and brotherhood, a transpersonal value.

Themis came to represent control through social contracts among people. Themis could see through to the truth of situations. She holds the scales of justice, like the Egyptian goddess Maat, weighing the truth of the heart. Principles of fair treatment under the law and egalitarianism are her "divine will." When that contract is broken by a nation, organizations like Amnesty International intervene, attempting to provide a voice for the values of Themis. They stand-in as a transnational conscience supporting human rights.

Themis acts on us through the natural consequences of our behavior. Sometimes we know what is right, but do what we feel like and suffer the consequences. Sometimes the judgment comes quickly, sometimes slowly. The transpersonalequivalent of natural consequences is the principle of Karma. It operates in the emotional or social sphere, by requiring that every "doer" receives the exact result, or reward of their actions. This is the same law of cause and effect known in physics as the law of compensation.

In employment it is the principle of fair wages and collective bargaining. In business, it is the basis of the fair market value, the "square deal." We act foolishly if we ignore the law of compensation and try to get "something for nothing." There is an exact balance of accounts and precise compensation for each and every act, according to Themis-consciousness. This alone should be enough to make us careful not to hurt the feelings of others. What goes around, comes around, according to folk wisdom. Themis might have coined the Golden Rule: "*Do unto others...*"

The proper understanding of the law of karma is a perfect solution to our social and economic difficulties. Greedy or profit-mad individuals spend massive amounts of action and energy amassing fortunes, while the poor majority languish. We are culturally conditioned into a consumer ethic by the media and Madison Avenue. This is an unnatural trance state from which we can awaken. The "Greed is good," mentality of the 80s is obsolete in the 90s.

If the principle of karma were deeply rooted in the public conscience, everyone would volunteer some fair exchange of their energies. Every business transaction would seek first

to render a service for that which is expected in return. The first consideration would be how to make adequate payment, not how much can be taken through exploitation. Pillage and plunder concepts are residues of lawless days of destruction of the weak. They are based on the erroneous assumption that there isn't enough in the way of resources to be shared by all.

The moral tone of Themis insures that there is no blind rip-off, without an eventual accounting. The concept of karma presupposes soul-migration from body to body, and suggests that ultimately all accounts are squared.

Keywords associated with Themis include:

adjustment
judgment
amnesty
fair trade
ecology
duty
compensation
regulation
"tie that binds"
human rights
law and order
jurisprudence
punishment
reward
partnership
thermodynamics
contracts
ordinance
reincarnation
integrity
poise
decisive
consistent
proportion
verdict
summons
deposition
lawsuit

INTELLECTUAL IDEA

Jungian psychology has adopted the principle of compensation (counterbalance) in respect to psychological complexes. These complexes compensate our ego's one-sided viewpoint on things. Their perspectives are presented through our dreams and subconscious imagery. These other viewpoints represent subpersonalities within our character.

It is in the nature of psychological complexes to suddenly switch into their opposites in a process termed enantiodromia. This 180 degree switch is the basis for the principle of rehabilitation, or reform. It is literally a re-forming of attitudes and thought-patterns, influencing values and priorities.

An example from *THE BIBLE* is the conversion of the crassly materialistic Saul into a spiritual man-of-God, Paul. On a lower arc of personality, the same happens in recovery for reformed alcoholics and criminals. The law of compensation is the basis of "rebirth" phenomena. It represents the return swing of pendulum. Themis encourages a balanced personality rather than radical, over-reactive mood swings. They are symptomatic of an underlying imbalance.

According to Jung, the ideal of spiritual striving for the heights is inexorably linked with a materialistic, earth-bound passion to conquer matter and master the world. The archetype of the Self expresses its paradoxical quality through radically opposite changes in the conscious attitude.

These 180 degree changes of attitude are to be expected, rather than appear as a surprise. It is the pattern of oscillation, and indicates values in flux. Contradictory attitudes held by the unconscious intrude suddenly into the conscious attitude of daily life. Sometimes it is the conscience calling, sometimes the voice of the shadow. It requires discrimination, and wise behavior to respond to such forces.

This good/bad paradox is embodied in the alter-ego of Themis, known as Nemesis. Nemesis-consciousness is characterized by pessimism and negativity--an "I told you so" attitude. She is the goddess of doom and gloom, the proverbial "chip on the shoulder." She is the shadow-side of Themis. Another shadow of judgement is guilt--the result of self-judgement. Guilt is the flip side of conscience. It manifests from a wounded conscience.

The SUPEREGO is a Freudian notion of an unconscious conscience, which metes out punishment and reward to the ego, like a critical parent. It is based in unconscious law, which in no way resembles the cultural codes we have developed to protect the innocent. The Superego is a transpersonal force, but when it is debased it functions through the subpersonality or complex we call the Inner Judge. Inner justice is far less egalitarian than external justice which is regulated by cultural checks and balances.

This judge is severe. Unconscious justice has only one aim: punishment and refusal of pleasure. Its nature is anti-hedonistic. In its view, "you exist, therefore you are guilty." This syndrome is accentuated in the psyche if the parents are rejecting, critical, or didn't want a child to begin with.

A critical inner judge condemns human frailty. In unconscious law the thought is equivalent to the deed, and the punishment is to be bound in the chains of neurosis. Thus we punish ourselves for crimes never executed in reality--crimes of unconscious fantasy.

The superego knows every secret, every unconscious wish, every inner defense. Its punishments are severe--disproportionate to the "crime." The inner District Attorney "throws the book" at the offender. Punishment comes in the form of depression, dissatisfaction, self-reproach, and sometimes suicide.

The inner court does not believe in the principle of double jeopardy. You can be retried an infinite amount of times for the same infraction. The judgment of conscience is final. There are no paroles, or "time off for good behavior." The inner jury is prejudiced and cannot be challenged.

In the internal law court, the judge's code is also Lewis Carroll's: "I'll be judge, I'll be jury, said cunning old Fury; I'll try the whole cause and condemn you to death." The inner lawyer or unconscious ego is impotent in the realm of the inner judge, because the ego seeks first to protect itself. In other words, the unconscious ego will never dare to fight for full acquittal.

In *THE SUPEREGO*, Edmund Bergler comments on the transcultural nature of the inner judge:

The superego's purpose is exclusively the individual's misery; its label of "forbidden" and "positively punishable" is attached both to cultural taboos and to actions accepted by the environment. Inner conscience is not concerned with the maintenance of taboos; inner conscience recognizes the taboos only for the purpose of misusing them. In every culture, therefore, people torture themselves unconsciously, regardless of the fact that the external "don'ts" are fastened to different prohibitions.

Themis is the divine vengeance of the karmic law. In *THE BOOK OF THOTH*, Aleister Crowley admonishes the aspirant to "Balance against each thought its exact opposite; for the marriage of these is the Annihilation of Illusion."

We are neither of the opposing thought-patterns. They are archetypal patterns playing through us. But our ego tends to identify clingingly to one or another of them at alternative times. Nemesis makes the necessary karmic adjustments for our behavior when we fail to negate illusive thoughts through meditation. Sometimes this manifests through inexplicable self-defeating or self-destructive behavior. Sometimes we don't feel we deserve or earn our success. This may be observant or it may be neurotic, an imbalanced evaluation. Themis-consciousness restores the state of equilibrium

Nemesis, the negative manifestation of Themis, is stasis or stagnation. In this consciousness, energies cancel one another out. On the psychological level, we might see how Nemesis makes sure that any thought or projected desire will return in time to influence the sender. Because of the psychological "boomerang effect" which even Jung noted, we should be very careful about projecting harmful thoughts toward others. As the occultists suggest, these energies can come home to roost.

The launching of destructive thoughts is observed by this subconscious aspect of Self we know as Themis. It knows all and responds accordingly, affirming the ancient law of cause and effect. She also chastises us into fulfilling our duty and destiny, our spiritual potential, and our physical potential.

She works on all the planes--spiritual, intellectual, emotional, and physical. Themis helps us develop a spirit of "give and take." She counsels moderation in all things including archetypal obsessions, being "carried away" by the force of a god. When we are rapt away, willy-nilly, from daily life, these "divine obsessions" make for very narrow personalities.

We can be consumed by identification with pure archetypal force, obliterating our finely balanced personality. Themis helps us regain balance.

According to Denning and Phillips in *THE MAGICAL PHILOSOPHY*, "*Justice is that quality, compounded of moral force and constructive purpose, which goads the sluggish mind and body to great achievement. This is the torpid serpent aroused to almost rampant vitality. Justice is the virtue of duty and the art of summoning power through creation of need.*" Justice represents the testing aspects of situation.

The magickal aspect of Themis includes the balancing of male and female, active and passive, right and left sides of the brain, and other opposites. This results, theoretically, in a mystical state of androgyny.

We see this force released in our society, more and more, as the old cultural boundaries and role models break down. Now woman can become professionals, men may be househusbands. Both participate and share more in the responsibilities and duties of life. Themis brings us whatever it takes to balance out our individual psyches. She is the irresistible urge in this direction.

Further reading on Themis may be found in,

THEMIS, Jane Ellen Harrison

JUNG AND TAROT, Sallie Nichols, York Beach, Weiser, 1980.

LAROUSSE ENCYCLOPEDIA OF MYTHOLOGY, Robert Graves, Hamlin, London, 1978.

SPIRITUAL MYTH

The spirituality of Themis is expressed through acceptance of self, others, and nature. It is an extension of the transpersonal principle of brotherly love to the whole Creation. Its offspring is the sense of Destiny, one's rightful place in the universal scheme of things. It feels almost as if we are magnetized in a particular direction.

Accepting our selves with our faults means we can maturely accept the world as it is. This means we develop past the egocentric stage and identity crisis toward maturity and a better balance. This was one of Abraham Maslow's indicators of self-actualization. Another was the sense of brotherly love or humanitarianism. It comes from the feeling that we are one with the Family of Man. Themis also appears as the impartial "Witness" allowing us to objectively evaluate ourselves free of the bias of temporary emotions.

Spiritual masters tell us that karma (or actions) rightly performed can lead to spiritual emancipation. Usually this involves some sort of *SEVA*, or transpersonal service. Right livelihood is also a necessary choice. Their criteria for what constitutes a "good" or "bad" action is simple: Good deeds take us nearer to our spiritual goal, while bad deedstend to take us farther away from it.

When we are healthy, we naturally wish to adhere to the "good" because rediscovering our true selves yields the pleasure of finding our identities reflected in a pleasant environment. This is the result of serendipity. We expect good, and generally find it reflected back to us.

Yet we realize that the world is not necessarily fair. We chase a myth if we feel that "justice always triumphs." It's only realistic to realize that bad things can and do happen to good people.

Since all life is characterized by activity and change is the law of life, it is considered best to sublimate the chosen course of our actions. Thus, we ennoble them, or put our "BTUs" of psychic energy where they count most.

To be path of liberation, karma must satisfy three conditions:

- 1). Respect and adoration for the true knowledge of the higher values of life.**
- 2). A sincere and loving feeling toward all living beings, corporeal and incorporeal (includes entities of "higher" planes, archetypes, forces of nature). Vegetarianism is an integral value of this attitude. Why would one kill for food or sport, when there are other options besides dishonoring the value of life?**
- 3). Karma is to be performed without the desire for recognition or reward. It should be performed with a spontaneous, active will, which flows from each one's unique nature (or personal sense of duty).**

These are the simple pleasures of work which is under no restraint or compulsion. It fulfills itself directly through the medium of necessity in that particular time and place. Man functions in harmony with the environment and destiny. There is no set way which is right for all; the "right man" may perform the "wrong action": and the "wrong man" may perform what is necessary, through spontaneity.

This brings up the issue of situational ethics. Jung considered morality an instinctive regulator of action. When we hold strong values, we are willing to speak out about them and act to uphold them. The law of karma is like that of action and reaction. It returns the legitimate results of our actions to us, in spite of our efforts to avoid them. We reap what we have sown, as the axiom states.

The law of karma is only in effect up to the region where mind and matter cease. It is the law of manifestation because every entity in the manifest universe is in action, thus creating karma. Beyond the realm of spacetime and causality, the spiritual world operates on the law of love(the Eros principle in its cosmological sense). But in our human realm of mind and matter, karma is universal.

Many cultures of the world have believed in the theory of the transmigration of souls, including the Pythagoreans, Hebrews, and Hindus. It was expunged from *THE BIBLE* by a Byzantine queen, whose karma was very dark. There is no way of escaping the workings of karma, according to these.

Reincarnation and metempsychosis are companion concepts. They assert that if a man's karmic accounts are not settled at the time of his death, he has neither defeated nor mocked the law. He must return in another form to make payment according to his actions, desires and attachments.

Even if we don't subscribe to literal reincarnation, it is easy to see that we recycle issues by drawing on imagery from the Collective Unconscious which relates to our unresolved problems and conflicts. We draw from the genetic and subconscious store of mankind's experience for responses to what happens in our lives. These psychic "downloads" may appear in the form of so-called past lives, and therapy on the entities and issues found there is often very helpful. Past life exploration is a fruitful area for exploring unresolved issues.

As long as the soul is exiled from God, according to Jewish tradition, we must submit to the guidance of the Law. Redemption only occurs when everything is restored to its pristine condition through human acts. The redemptive mission of the Boddhisatva, or World Savior, is also based on this notion that no one is free until we all are transformed. This state represents complete fulfillment of the Creation. The Jews call it Tikkun. Its nature is contentment and joy.

CULTURAL COUNTERPARTS

MAAT (Egyptian)

KARMA (Hindu)

CONTEMPORARY EXAMPLE

A modern Themis sits on the U.S. Supreme Court. Sandra Day O'Connor has succeeded in a very delicate balancing act which allowed her to enter the Olympian ranks of top justices.

Pythagoras upheld the ideals of balance and harmony. His *GOLDEN VERSES* contained the admonishment to, "*Carefully consider before you act. You may not be able to retract. Understand well all that you do, And you will have no cause to rue.*"

Thelma and Louise wreaked vigilante vengeance.

KEYWORDS

Sense of duty, justice, fatalism, pessimism, negativity, law, reform, weigh in the balance, equanimity, objectivity, sacrifice of illusions, separate fantasy from reality, contemplation, deliberation, morality, guilt, conscience, judgement, balance, mediator, correction, compensation, remedy, court, divine justice, settled, fixed, decided, plan ahead, closure, planned, completed, decisive, wrap it up, urgency, deadlines, reward/punishment.

DIALOGUE WITH THEMIS

Imagine Justice holding her scales aloft with the upward-pointing sword in her other hand. When you feel inner conflict, the tension of opposing pulls within, meditate on her form to regain your equilibrium. She will inform you how the opposites and work in a complementary manner, through continual interplay.

Let her speak to you when you have issues about morality or conscience. If you are feeling guilty, confess to her. You may find that you are judging yourself too harshly. Guilt is what we feel over the wrong things we have done (actions); whereas shame is the feeling that we are essentially bad or flawed.

There are few records of her myth, but Nemesis was depicted as a winged figure. She is a fatalistic entity with an offended sense of fair play, and the kind of jealousy, envy, or chip on the shoulder that comes from an old childhood wound.

She manifests in human relationships as the destructive negativism which taunts "It serves you right". But positively, she is the balancing force that maintains realistic thinking and judgements. She is healthy skepticism in balance with Themis. She helps us achieve balance, and fair assessments of each event as a unique phenomena. In terms of psychological complexes, Nemesis-consciousness is persistent and obstinate, and difficult to drive out. Rather than denying her, she needs the balancing remedy of her sister's gentler perception.

Nemesis was at first a moral idea about the inexorable equilibrium of the human condition. Her consciousness is the "great leveler," divine anger. Divine wrath in ancient times came from offending moral law or making the gods jealous from acquiring an excess of good fortune through little effort. The gods required propitiation through a sacrifice or they sent unhappiness (Nemesis) to plague the person.

Nemesis saw that order was maintained. One of her methods was an injunction of silence to avoid attracting divine anger. Today we might say that not boasting of one's excessive good fortune doesn't bring down the wrath of the gods on an over-inflated ego-consciousness. As high as we go is as low as we go, in mood swings. This is regulated by the serotonin/noradrenelin cycle in the brain. When we get over inflated, someone or something will sooner or later pop our balloon.

THEMIS IN YOUR LIFE

- 1. Describe a time when you have changed values or opinions 180 degrees.**
- 2. Can you remember times you felt completely out of balance, either physically or emotionally. Or perhaps there was no room in your life for spiritual pursuits. Also, recount a time you felt in the flow of things, perfectly balanced, and poised.**
- 3. Do you have any experience with past life recall? What issues were important in your memory? How did this awareness arise? Did this viewpoint complement your conscious attitude?**
- 4. Is there anyone in your life you feel you owe a "karmic debt?" Sometimes people or cultures feel indebted to those who have saved their life, until the debt can somehow be repaid.**
- 5. Can you describe some examples of the balancing interplay of Themis and Nemesis in your life? Does one goddess predominate over the other? Do you ever strike a balance between optimism and pessimism?**
- 6. Do you believe in destiny, fate, karma, or free will? What personal experiences conditioned this belief?**
- 7. Have you ever gone through a period of fatalistic thinking in your life?**

8. Do you (or someone close to you) ever get possessed by Nemesis--vengeful, cutting someone down to size--pessimistic about the future of relationships were this goes on?

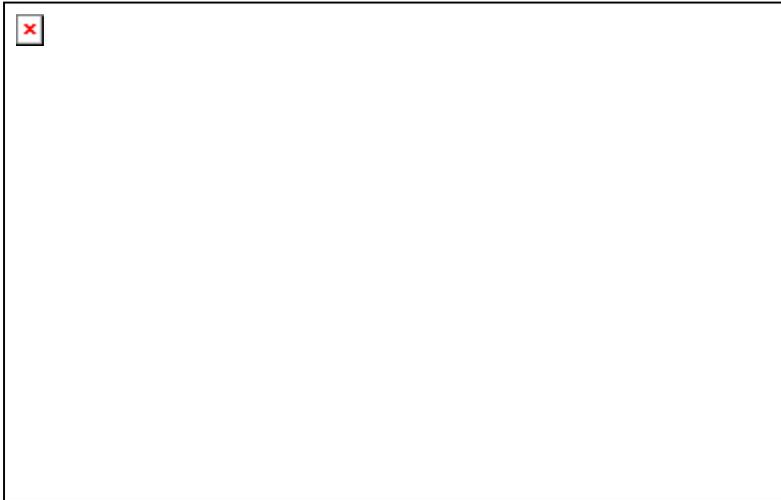
9. Name four or five moral positions which you are committed to, and willing to speak up for publicly.

10. Listen to your conscience speak--this is the voice of Themis. Known to the Freudians as the Superego, this transpersonal force is guiding and healing when it is not contaminated by negative judgmentalism and criticism picked up during childhood. How can you discriminate the voice of your conscience from those of your "negative parent tapes?"

*Poseidon the Mighty, with Trident in hand,
Rules fathomless oceans, and earthquakes on land.*

CHAPTER XII: THE HANGED MAN

POSEIDON



Poseidon was the eldest son of Rhea and Cronos, and he vied for his portion of rulership over creation with his brothers Zeus and Hades. His apportioned lot became the rulership of all waters, oceans, and the dominion over earth. In fact, he is the earthy version of Zeus, manifesting in concrete, rather than celestial form.

Like Zeus, he is described as having jet-black hair and being powerfully muscular. His sacred animals include the horse, the ram, white bull, and all aquatic creatures, but the dolphin is his particular favorite.

Poseidon corresponds with Neptune and Trump XII, THE HANGED MAN. This "hanged man" is the execution of the judgment of the previous trump. He is not suffering. In its transformative capacity, Neptune-consciousness symbolizes an inversion in awareness. It is a reversal of the superficial view of life to one in which the true spiritual nature of the universe is perceived through superconsciousness.

This hyperconsciousness is symbolized as "water," but it is also mind stuff. This is the water of life. Cosmic Consciousness means that since you and the universe are one, that awareness is inherent within you. THE HANGED MAN implies the suspension of personal actions (Trump XI, Adjustment) during the ecstatic state, which is achieved through concentration.

Though Neptune-consciousness is boundless and non-material, it flows in its own direction. When this aspect is emphasized there are demands on us to subordinate or sacrifice our personal desires and feelings and flow willingly with the current of the stream of life. It is a consciousness where the mind and senses are suspended in Samadhi. The thoughts are brought to a standstill in meditation, usually by the repetition of a mantra.

Poseidon-consciousness is oceanic. There are two types of oceanic experience: intuitive oceanic and feeling oceanic. It is immersion in the ocean of spirit. [see PSYCHETYPES, Michael Malone]

In consciousness journeys, we find Poseidon in the imagery of being sucked into the maelstrom, the turbulent motion of the whirlpool. Other images of Poseidon are the twisting of a tornado, or the violence of a hurricane or powerful tidal wave, flash flood, or roiling river.

"Becoming" the essence of these powerful forces, we connect with Poseidon-consciousness, rather than haphazardly remaining its victim. By not resisting, we are drawn into the depths.

Worship of Poseidon originated with the Indo-European group of people, known as Aryans, who later migrated down into Greece and spread as far as northern India. To them he was known by the name Poteidan, and was associated with his mate called Da Mater, who became known as Demeter in classical Greece. These people knew little of the world's great oceans and considered their god one of very potent generative power.

The sexual aspect of Poseidon is shown by his representation as a horse, bull, ram, or bear; these are all symbols of power, instinctuality, and fertility. Poseidon, as consort of the earth, was thought to fertilize her with his waters, much as sperm fertilizes the female. As a principle of fertility and fecundation, he was seen as the active agent behind germination and gestation of both plant and animal life. Plants don't sprout without water, and both plants and animals suffer during drought.

His great strength was synonymous with virility, and he therefore had many lovers. In time, his sexual prowess came to symbolize not only the power to bring life forces into physical manifestation, but also authority and social position. It came to mean having power over the lives of others. Breeding and biological propagation, or reproductive power became transmuted into personal power. The Poseidon-type of personality became an "Earth-shaker", not only in the literal sense, but a "mover and shaker" in society.

As the eldest of the ruling brothers, Poseidon is sovereign in his earthly third of the world. The Poseidon personality wields the same sort of authority and effectiveness today. He represents political or economic power in the business world, rather than a spiritual or

intellectual force. Dreams of tidal waves, earthquakes, and wild horses reflect an activation of the Poseidon principle.

The earth is where the light and dark realms of Zeus and Hades meet. Where light and dark mix is a land of shadows, and this also shows in the Poseidon character. His strong instinctuality shows that he really has more in common with Hades than with Zeus. He is connected with the color black, and a darkening of the Light of ego-consciousness.

The more ego-consciousness seeks to express contempt for, or demean, earthborn instincts, the more powerfully Poseidon will attack. The instincts want equal attention and interaction in life. They prevent the ego from drying up due to lack of moisture. The HANGED MAN means the suspension of ego-consciousness, the usurping younger brother Zeus.

Poseidon was the father of strange and frightening children, including the Cyclops and Medusa. Part of his essential nature is linked with the primordial Great Goddess, as shown by his affinity for the ocean, and being under water, submerged in the subconscious. He indicates that at the heart of reality, next to Zeus, lives something always consorting with darkness--restless, sometimes serene, sometimes evil, and very potent.

The arrival of potent Poseidon imagery touches on knowledge--physical, fantasy and meditative knowledge. On the psychological level, Poseidon is the overwhelming power of the collective unconscious which can erupt from the depths of the psyche at any time.

He is a definite push on the part of the unconscious to encourage the conscious mind to insist on the personal space and independence needed to further psychic development. Poseidon is always present deep within the psyche in latent form, arising periodically to shake up our ordinary life.

One confronts the shadow internally and in its "acting out", again and again. Poseidon projects his violent nature; this energy is untamed and often unhelpful and should be related to instinct. He also expresses his aggressive tendencies in sexuality. He is the royalty of primal sexual energy. He expresses the depth and divinity of human sexuality.

Poseidon has a religious meaning. The God is dark as well as light. He is described as brooding and tumultuous. He has a revolutionary spirit which dissolves old paradigms without forming new ones. In this sense, Poseidon-consciousness is like the operation of solutio in alchemy--a dissolution of the old structure in preparation for an adaptive change.

The Feminine is the mediator to the deep energies of Poseidon, therefore we usually find him with one of his numerous mistresses. The Goddess always appears with him. This is a summons to experience the Feminine. We are called to explore and honor the unconscious, the oceanic world of right-brain experience. This relatedness joins what was separated, connects us to others and the Other (or Not-I) via the feminine way.

PHYSICAL FORM

In mythology, Poseidon's realm represents 1/3 of Creation, shared equally with Zeus and Hades in a Cosmic Triangle. Even though remaining official discovery, we can "see" his

domain in the unseen oceans of non-luminous dark matter and dark energy that are theorized to complete the distribution of matter/energy in the universe, in fact to be the majority of it.

Cosmologists baffled by the apparent evidence that the Universe is younger than the stars it contains may have been guilty of reading too much into our immediate surroundings in the Universe. According to a group of Chinese researchers, the problem is that we live in a low-density bubble which is not typical of the Universe at large. When the appropriate measurements are made on large enough scales, everything slots into place.

The kind of scales cosmologists deal with are much greater than the distances between stars. They are interested in the distance between clusters of galaxies, and regard a whole galaxy of several hundred billion stars, like our Milky Way, merely as a "test particle" in the Universe at large. Stars are useful in one respect to cosmologists. The ages of the oldest stars in our Galaxy are at least 12 billion years, and obviously the Universe must be older than the stars it contains. The puzzle, highlighted by recent observations using the Hubble Space Telescope, is that the simplest interpretation of measurements of the distances to nearby clusters of galaxies and the rate at which they are moving apart suggests that the Universe started expanding from a point (the Big Bang) only 8 billion years ago.

But this interpretation depends, among other things, on the assumption that the Universe contains exactly enough matter, overall, for gravity to one day bring the expansion to a halt. This critical density is required by the detailed theory of the Big Bang, called inflation, which most cosmologists favour. If the density of the Universe is less than the critical density, it alters the dynamics of the situation and extends estimates of the age of the Universe. The key question, which has not really been considered much by cosmologists until now, is how typical the region of the Universe over which we can make these measurements is. Our local bubble of space may not give us enough information to predict the behaviour of the entire Universe.

Xiang-Ping Wu, of the Beijing Astronomical Observatory, and several colleagues, suggest in a paper to be published in the *Astrophysical Journal* that this is indeed the case. They point out that although this kind of study of the Universe extends out to distances of a few hundred million light years, if the measurements made for clusters at different distances are analysed separately, instead of all being lumped together to give one average figure, they show that the density of matter in the Universe increases the further out we look. On a scale of about 30 million light years, the density is only 10 per cent of the critical value, while on a scale of 300 million light years it may be as much as 90 per cent of the critical value.

The direct implication of this is that on the scale over which recent measurements of the expansion of the Universe have been made, the expansion rate (given by the so-called Hubble constant) is bigger than the overall average expansion rate by as much as 40 per cent. That means that the age of the Universe has been underestimated by 40 per cent, which is almost exactly the correction needed to boost the age from about 8 billion years to about 12 billion years, matching the ages of the oldest stars.

According to John Gribbon, astronomers congratulating themselves on having discovered what our Milky Way Galaxy is made of have had to cancel the celebrations. Their observations, suggesting that the bright stars of our Galaxy are embedded in a halo of thousands of billions of dark stars, are as good as ever. But unfortunately, a completely different series of observations implies that there simply are not enough atoms available to make all those dark stars. There is a conflict, and both suggestions cannot be right. But the good news is that this kind of conflict usually leads (sooner or later) to an improvement in our understanding of the Universe.

The more astronomers studied the Universe, the more evidence they found for the presence of matter that could not be detected by any form of radiation. Even dark matter exerts a gravitational influence on its surroundings, and studies of the way individual galaxies rotate, and of the way groups of galaxies move together in clusters, showed that there was a lot more matter around than met the eye, tugging on its bright companions.

Obviously, there is bound to be some dark matter around -- but by the end of the 1980s it was clear that there was at least ten times more dark stuff than bright stuff in the Universe. For nearly 400 years, astronomers had been studying the tip of the proverbial iceberg. Now, they were eager to study the rest of it. But how? In the absence of any observations of the dark stuff, theorists had a field day coming up with wild and wacky (and sometimes serious) suggestions about what it might be. The most extreme suggestion was that some form of fundamental particles, never detected in laboratories on Earth, might have been produced in profusion in the Big Bang in which the Universe was born, and fill the "empty space" between the stars and galaxies.

Such particles would have to have mass, or they would not exert a gravitational pull; otherwise, though, they would interact only weakly with ordinary atoms. So they were dubbed WIMPs -- Weakly Interacting Massive Particles. A typical WIMP would weigh about as much as a light atom -- perhaps half as much as a carbon atom. If there are as many as would be required to explain the motions of galaxies, large numbers are whizzing through the room you are sitting in, and through your own body, without you noticing.

But there is a rival theory. Perhaps all of this dark matter is ordinary atomic stuff, the same sort of stuff that stars and planets, and ourselves, are made of. At least as far as our own Galaxy is concerned, the dark material in the halo could be in the form of large planets ("jupiters") or small, faint stars ("brown dwarfs"). Such objects would be much more massive, individually, than a single WIMP, but quite compact in astronomical terms. And they live in the halo. What else could they be called but Massive Astrophysical Compact Halo Objects, or MACHOs?

The great thing about MACHOs is that it ought to be possible to detect them -- not directly, but by their gravitational influence on light from even more distant objects. This depends on the way any gravitating mass bends light that passes near it, a key prediction of Einstein's general theory of relativity. Einstein's prediction was confirmed by studies of light from distant stars passing near the Sun, carried out during an eclipse in 1919. Einstein himself pointed out, back in the 1930s, that under the right circumstances a massive, dark object could focus light from a distant star, acting as a gravitational lens. And at the end of the 1980s astronomers realised that if a MACHO in the halo of our

Galaxy passed in front of a distant star while we were watching, we should see a flash of light caused by the gravitational lens effect.

For a typical MACHO with a mass 1 per cent of that of our Sun, you would see one of these lensing events every 50,000 years or so. But modern astronomical techniques, using solid-state charge-coupled devices instead of photographic plates, make it possible to monitor millions of stars in the LMC, with computers analysing light variations in real time, so that as soon as a flash is detected other telescopes can be turned on the star of interest. Three teams of researchers have detected flashes of this kind, bearing all the hallmarks of gravitational lensing caused by MACHOs. "Flash" is not quite the right word, because in each case the star being studied brightens up and then fades away over a couple of weeks, as the putative MACHO moves slowly in front of it. This exactly matches the predictions, and details of the "light curves", as they are called, suggest that the halo is full of MACHOs which each have a mass maybe 10 per cent of that of our Sun.

If they account for all of the mass required to explain how the Galaxy rotates, that would mean a cool five thousand billion of these objects in the halo of our Galaxy alone, compared with just one or two hundred billion bright stars. We know how much deuterium (and other elements) there is in stars and galaxies because it leaves its characteristic fingerprint in the form of lines in the spectrum of light from these objects. Very distant galaxies are seen as they were long ago, because light from them takes a long time (in this case, billions of years) to reach us. Using the deuterium abundances measured for stars in our Galaxy, the Big Bang could have produced ten times more atomic matter than we see in bright stars. But using the figures from the Keck observations, there is barely enough scope to make the stars themselves, and no room for MACHOs.

The implication is clear -- any dark matter around must be in the form of WIMPs, after all. Only, something is making the stars in the LMC flicker as we watch them, and nobody knows how WIMPs could be made to clump together to make the kind of massive, compact objects needed to do the gravitational lensing trick. Confused? So are the astronomers; but they are also intrigued by the possibility that whatever is out there may be different from anything the theorists have yet been able to imagine.

"The universe is made mostly of dark matter and dark energy," says Saul Perlmutter, leader of the Supernova Cosmology Project headquartered at Berkeley Lab, "and we don't know what either of them is." He credits University of Chicago cosmologist Michael Turner with coining the phrase "dark energy" in an article they wrote together with Martin White of the University of Illinois for Physical Review Letters.

Perlmutter and Neta Bahcall, Jeremiah Ostriker, and Paul Steinhardt of Princeton use the concept of dark energy in discussing their graphic approach to understanding the past, present, and future status of the universe. The Cosmic Triangle is the authors' way of presenting the major questions cosmology must answer: "How much matter is in the universe? Is the expansion rate slowing down or speeding up? And, is the universe flat?"

The possible answers are values for three terms in an equation that describes the evolution of the universe according to the general theory of relativity. By plotting the best experimental observations and estimates within the triangle, scientists can make

preliminary choices among competing models. The mass density of the universe is estimated by deriving the ratio of visible light to mass in large systems such as clusters of galaxies, and in several other ways. For several decades the evidence has been building that mass density is low and that most of the matter in the universe is dark.

Changes in expansion rate are estimated by comparing the redshifts of distant galaxies with the apparent brightness of Type 1a supernovae found in them. These measurements suggest that the expansion of the universe is accelerating. Curvature is estimated from measurements of the anisotropy (temperature fluctuation) of the cosmic microwave background radiation (CMB), a remnant of the Big Bang. Although uncertainty is large, current results suggest a flat universe.

The Cosmic Triangle eliminates some popular models, such as a high-density universe that is slowing down and will eventually recollapse, as well as a nearly empty universe with no dark energy and low mass. While the evidence from galactic clusters shows that mass density is low, supernova evidence for acceleration shows that dark energy must be abundant. "These two legs of the Cosmic Triangle agree with the evidence from the CMB that the universe is flat," Perlmutter says, adding that "this is a remarkable agreement for these early days of empirical cosmology." Thus the Cosmic Triangle suggests that the standard inflationary scenario is on the right track: one of its key predictions is a flat universe.

Various types of dark energy have been proposed, including a cosmic field associated with inflation; a different, low-energy field dubbed "quintessence"; and the cosmological constant, or vacuum energy of empty space. Unlike Einstein's famous fudge factor, the cosmological constant in its present incarnation doesn't delicately (and artificially) balance gravity in order to maintain a static universe; instead, it has "negative pressure" that causes expansion to accelerate.

According to Discover, Mar 3, 2001, the universe that Newton and Einstein knew was a tame, stable place. The Milky Way was the only galaxy in town, and its stars seemed fixed in the firmament. The seeming stasis of the night sky had stumped Newton, and even a theory as powerful as relativity failed to explain it. So Einstein added an arbitrary term to his equations. Mathematically, it acted like a repulsive force spread smoothly throughout the universe. Where gravity pulled, he said, this force pushed back in equal measure. He called this fudge factor λ , and eventually it came to be known as the cosmological constant.

Einstein never felt good about λ , because he couldn't point to any theoretical or experimental evidence for its existence. Later in life he called it his greatest blunder. For 50 years, Big Bang cosmology reigned. Then, three years ago, light from distant, dying stars revealed that the edges of space are rushing away from one another at an ever-increasing rate. The cosmos, it seems, is not just growing but growing faster and faster. The bigger the universe gets, the faster it grows. Some ubiquitous, repulsive force is driving at the margins of space, stomping on the accelerator. And there are no red lights in sight. That mysterious propulsion looks a lot like λ .

Today's cosmologists are calling this force dark energy: "dark" because it may be impossible to detect, and "energy" because it's not matter, which is the only other option. Despite the sinister connotations, dark energy is a beacon that may lead physicists to an elusive "final theory": the unification of all known forces, from those that hold the components of atoms together to the gravity that shapes space. Meanwhile the notion of dark energy has helped reconcile a puzzling suite of recent observations about the shape and composition of the cosmos.

In fact, the future of physics and the fate of the universe may ultimately depend on a kind of antigravity that has heretofore been a subject of mere conjecture. The experts think they know what role dark energy plays in the cosmos. Now all they have to do is figure out what dark energy is. The Boomerang data confirmed that the shape of the universe is flat. That means the cosmos has just enough matter in it to keep photons traveling in straight lines through space. If the universe had much more or far less matter distinct patches in the microwave background (shown in blue and yellow) would appear either larger or smaller than in a flat universe.

The answer finally came in the late 1990s, from giant telescopes studying the light of stars dying in spectacular explosions called supernovas. Supernovas are among the brightest events in the cosmos, so they can be seen from very far away. Because light from the most distant supernovas must travel for billions of years to reach our telescopes, astronomers can look to its redshift for a historical record of expansion reaching back billions of years. Expansion isn't slowing down as expected; it's speeding up. The finding was counterintuitive, and it was based on brand-new methodology. But at the same time, a second group of space-telescope studies led by Brian Schmidt and Robert Kirshner of the Harvard-Smithsonian Center for Astrophysics came to the same conclusion.

Flat space isn't two-dimensional; it just isn't curved. Each shape corresponds to a density of matter denoted by the symbol ω . To create a flat universe, matter must reach so-called critical density, which means ω equals one. In a saddle-shaped universe, ω is less than one; in a spherical universe, it's more than one. Astronomers have sought to determine the value of ω and distinguish among these geometries by measuring the way space bends beams of light. The light they like to measure isn't visible; it's microwave radiation left over from the Big Bang that glows at the farthest reaches of the universe. Distortions in that microwave signal can reveal the shape of the intervening space. In a saddle-shaped universe, distinct patches of the microwave background would look smaller than they're predicted to be. A sphere-shaped universe would magnify the patches of background radiation. In a flat universe, patches of background radiation would be closest to their predicted size.

Recent studies of microwave background radiation had hinted that the universe is flat. Data from balloon-borne instruments lofted over Texas and Antarctica supplied convincing evidence. Minute fluctuations in the radiation were the expected size. The most precise measurements available revealed that the shape of the universe is flat; it has the critical density and ω equals one. There's not nearly enough stuff to account for the flatness astronomers observe. Unlikely as it seems, says Turner, the universe seems to be made up mostly of empty space—a vacuum. "And that finding," says University of Texas physicist Steven Weinberg, "could be regarded as the most fundamental discovery of astronomy."

As quantum mechanics matured through the middle of the last century, it began to make sense, in a wonky way, that the apparent vacuum might have some energy in it. Theorists had even named the hypothetical vacuum energy λ , in honor of Einstein's goof. And they'd realized long ago that if energy in the vacuum exists, it has a repulsive effect—one that could cause a universe to accelerate. But if some exotic form of repulsive energy does make up two thirds of all the stuff in the universe, it must be very weak. Otherwise its effects would have been obvious long ago. Whatever the mysterious λ is, it must do its work only across great distances, on a cosmic scale. "The discovery of an accelerating universe was simultaneously the biggest surprise and the most anticipated discovery in astronomy," he says. It put energy on the map.

So the universe circa 2001 is flat, accelerating, and very nearly empty. And astronomers are happy, because a single entity with Einstein's imprimatur can explain all these attributes. But if the existence of dark energy has simplified researchers' understanding of the contemporary cosmos, it has also introduced plenty of complications. One has to do with the fate of the universe. In the days before dark energy, astronomers believed that the end of the expanding universe would be dictated by the density of matter in it. Just as matter determined the curvature of space, it would also predict the way that space would expand and whether it would ever contract. Back when cosmic expansion was caused solely by the cataclysmic propulsion of the Big Bang, the gravity of matter was expected to eventually slow it down, maybe even stop it, maybe even reverse it. In short, density equaled destiny. In a flat universe, where the density of matter is exactly one, the expansion eventually slows very nearly to a stop but never actually reverses.

But if the universe is made up mostly of repulsive, ubiquitous energy rather than matter, then its ultimate fate isn't inscribed in its shape after all. "We used to say that fate and geometry were connected," says Turner. "But that's only true if the stuff of the universe is matter alone. Once dark energy comes in, then destiny and geometry decouple. So you can have a closed universe that expands forever and an open universe or a flat universe that collapses."

The only way to figure out the fate of the flat, empty, accelerating universe, says Turner, is to learn more about the dark energy that's impelling expansion. Theorists can't explain why the densities of matter and energy are currently so close in value. Theoretically, either of those densities could be anything from zero to infinity, and their ratio could vary accordingly. The odds of their being within an order of magnitude of each other are very low. The precarious balance between matter and energy that exists today in our universe—one-third matter to two-thirds energy—seems as improbable as the static universe that Einstein struggled to describe. And some find that improbability especially suspicious, because a universe more dominated by dark energy would be inhospitable to life. The excess energy would prevent matter from clumping into galaxies, stars, and planets. Yet here we are.

The fact that energy and matter have achieved a delicate balance is suspicious, he says, only if you assume there's no communication between the two. Steinhardt has proposed that repulsive energy senses the presence of matter and changes its strength or distribution to maintain a balance of densities. This energy could alter its properties over space and

across time; unlike lambda, it wouldn't be distributed evenly, and it wouldn't remain constant.

Reckoning with dark energy will also spur attempts to define a quantum theory of gravity. Gravity is the only one of the four known forces that has eluded description in terms of energy bundles called quanta. Physicists have already managed to bring the other three—the strong force, the electromagnetic force, and the weak force—into the quantum fold. But unlike those three forces, gravity typically operates on vastly different scales than quantum mechanics. "Gravitation governs the motions of planets and stars," Weinberg wrote in a recent review, "but it is too weak to matter much in atoms, while quantum mechanics, though essential in understanding the behavior of electrons in atoms, has negligible effects on the motions of stars or planets."

With the discovery of dark energy, the two worlds collide. In the acceleration of the universe may lie some clues to the behavior of tiny quanta of gravitational energy. Einstein's own theories of gravity allow it to have some sort of repulsive effect, so elucidating the nature of dark energy could hasten theorists on their way to a final theory unifying all the forces. That's why physicists scanning the furthest reaches of space with powerful telescopes suddenly seem very interesting to the physicists scribbling on the blackboards. But there's no guarantee that dark energy will serve up the eternal verities the high priests are hoping for. The unlikely balance of energy and matter and the strength of the vacuum energy may permit human existence through caprice, not necessity. Einstein himself knew well the hazards of counting on capricious nature. "Marriage," he once opined, "is the unsuccessful attempt to make something lasting out of an accident." Scientists who would seek permanent truths in the accelerating universe could be making the same mistake. (2001 The Walt Disney Company).

Poseidon also inhabits the turbulent flow of chaotic motion. His is the underlying pattern governing the principles of complex dynamics. Though it appears random, this non-linear flow is actually patterned, though not in any precisely predictable manner. Poseidon is the mighty spirit of waves whether they are in water or travel through the land as an earthquake. In fact, if we read "matter" in place of "earth," we come to understand that wave phenomena occur throughout nature from the atomic to cosmic realms. Quantum physics uses the formula known as the Schroedinger wave equation to measure this phenomenon of wave propagation. Time evolution is another form of wave--a "time wave."

Waves are found, not only in the great oceans, but in all sizable bodies of liquid, as well as surface waves such as those found travelling through fields of grasses. A wave is a nonmaterial essence which shapes the matter through which it passes. Objectively, a wave may be considered as pure energy in motion, expressing an ethereal "might" patterning the physical universe. The primary characteristics of waves include (1) amplitude, or height from trough to crest; (2) length or distance between one crest and the next along the line of motion; and (3) frequency, which means the number of waves passing through a given point during a specified amount of time. Frequency multiplied by length gives the speed of the wave.

There are certain dimensional constants which occur in ocean waves in regard to wind and the depth of the ocean floor. Like the mystic waters, the oceans are so deep and varied.

Differing conditions produce different types of waves. Poseidon is sometimes turbulent, sometimes serene. For example, rough winds produce choppy trochoidal waves, while calmer seas consist of gentle sinusoidal waves. A wave's velocity is directly proportional to its period, and its length varies as the square of either. The nautical speed of waves is calculated in knots and is equal to three times its period in seconds. Its length in feet is $5 \frac{1}{8}$ times the square of the period.

Tsunamis (sometimes erroneously termed tidal waves) are directly relatable to Poseidon in that they are the result of earthquakes, radical shifting in the earth's crust. While they are fairly harmless swells deep at sea, when they approach land they create enormous waves which wreak havoc in seaside areas. Other, less chaotic, types of waves may be found at river estuaries where fresh water meets the sea. This creates eddies and underwater undulations.

Snowdrifts and sand dunes may also be classified as waves which form under their own laws. Deep in the earth, magma moves in oscillatory wave patterns. Other wave phenomena includes ripples and swells of radiations, gravitation, and electromagnetic waves in a plasma. On the microcosmic level, atoms are composed of durable waves (standing waves) of resonance which structure matter. Waves are also the vibrational basis of music and sound in general. The impact of these airborne waves on our ear allows us to hear. They reverberate on the spiral cochlea of our inner ears.

It becomes easier to see why Poseidon is a power equal to Zeus, but with a slightly different dominion. Matter expresses the properties of both particles and waves. Each quantum of energy is a discrete segment of vibration bounded by nodes. Electrons circling their nucleus travel in quantized crests and troughs. These vibrations produce characteristic wave patterns for the various elements.

Electrons are considered as moving in an orbital, rather than an orbit. Its path is fuzzy or uncertain, rather than a well-defined line of motion. The entire radiation spectrum, from atoms to the unknown waves of pulsing stars and gyrating galaxies deep in the oceanic abyss of space may thus be seen as the physical embodiment of Poseidon.

Poseidon may also express in more tangible forms such as the "frozen" spiral waves which constitute the curves of life. He may be seen in whorls, eddies, and helixes. An example is the logarithmic, or equiangular spiral form of the shell of the sea creature, nautilus. These logarithmic spirals pervade many life forms, and are the visible form of expansion of energy and growth. Like the seismic waves in the earth's crust, life is never still, but functions as a dynamic equilibrium.

Occupations associated with Poseidon include the following:

<p> deep sea diver fisherman frogman navigator oceanographer sailor </p>	<p> yachting shipbuilder industrialist shipping magnate power broker water witch </p>
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seismologist sea captain surfer swimmer	underwater salvage river guide
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EMOTIONAL IMAGE

An emotional analog to shadow matter and energy, is Jung's concept of the archetype of the Shadow, our un-lived life, our potential for both evil and good. The shadow embodies the primitive, dark background from which we all emerge. That darkness represents the descent into darkness on the path of individuation; the unknown of our own deep subconscious mind. *Elan vitale* gets pulled into the unconscious leaving the ego frustrated, discontent, and isolated. The inner critic or judge takes over.

Through projection, introversion and depression, the Self appears on your inner stage as the shadow and confronts you with your inferior traits, those that prevent realizing unique potential and personal fulfillment. Cowardice, narcissism, laziness, ambivalence, rashness, dishonesty, envy, greed, lust, vanity and attachment and other self-indulgent tendencies have to be faced directly. If the shadow has not positive means of self-expression, it may be acted out in self-defeating or self-destructive behaviors.

Poseidon is traditionally linked to the sea. Many of us have a very, deep unexplainable love of the sea. Throughout civilization we have gone down to the sea in ships. The lore of the sea and the romance of sailing is well represented in literature and poetry. In one sense this is not hard to understand, since we recall subconsciously that the ocean is the origin of life, and the "waters of life" still sustain and nourish us. The great sea pertains to our inner life, and we must remember that the bulk of the human body is water.

Oceans formed 4400-4100 million years ago. The oldest fossil remains we have found are about 3500 million years old. The biochemical origins of life began from a primeval soup composed of water, methane, nitrogen, traces of ammonia, and small amounts of hydrogen.

The primordial ooze was suffused with electrical discharges, or lightning, sparked into life by the Zeus principle. Zeus initiates the chain reactions which eventually lead to complex organic molecules. The nucleic material of DNA developed linear chain growth with the help of normal clay with traces of metals or silicates, acting as catalysts (remember Hephaistos?).

The first phase of life on earth consisted of organelles or prokaryotes, which lived by photosynthesis. We know them more commonly as blue-green algae, or cyanobacteria. They can exist in varied liquid environments from frigid lakes to hot springs, and geysers. Later unicellular life forms developed, and cell division began, permitting higher forms to emerge. Cells capable of mitosis, or cell division, are known as eukaryotes and require free atmospheric oxygen.

Originally, primordial cells required no oxygen and were sustained by the free flow of the nutrient liquid around them. Their food was brought into proximity, and their waste

washed away. As cells clustered together more densely, higher forms of life evolved, requiring simple circulatory systems to achieve the task the ocean once fulfilled.

Over time animals developed an "internal ocean" which gave them enhanced mobility, especially enabling them to move onto land. Today humans retain their link to the primeval sea in the blood stream, whose salinity is approximately equivalent to that of sea water.

These evolutionary memories still lie deep within our consciousness. This primal Poseidon-consciousness emerges spontaneously when we experience evolutionary regression in consciousness journeys. This was one of the characteristic earmarks of the oceanic aspects of L.S.D. journeys in the therapeutic setting. The journeyer follows the evolutionary wave backward and "downward" to the primordial ooze--to amoeba consciousness, and perhaps beyond.

This state may also be experienced without drugs through the help of a "consciousness guide." It is non-linear consciousness, which may feel chaotic at times, serene at others. It includes empty voids, great abysses which may be full of unrecognizable information which is infused into the journeyer. Sometimes we may feel like we are drowning in so much imagery. It contains currents and reefs and the best way to explore it is to simply "flow with it." These dimensions can be hazardous, therefore a guide is essential.

Primitive technology made it possible for primal mankind to return to the sea, this time in ships. Later came the concepts of navies and the merchant marine, along with the science of navigation. Throughout history, the most advanced nations have navigated the most. Therefore, shipbuilding may be seen as an abridgement or compendium of a nation's industrial arts.

Exposure to new cultures through world travel provides an increase in awareness, and another perspective on one's own culture. It is an expanding awareness in which we can immerse ourselves by "going native." We've sailed the Seven Seas, and now we sail the heavens. Oceanfarers are still symbolically initiated by Poseidon when they cross the International Dateline. They are swabed with a bucket of blood or paint. The captain portrays Neptune.

Efficiency, or performance per pound is an old shipbuilder's concept. Ocean-going vessels were the original "spaceships" providing an independent, mobile life-support system in a hostile environment. Even today, ships are concentration points for our most current technologies. Such common conveniences as heating, air conditioning, refrigeration, and electric lights were first used at sea. On the ocean, whole communities are sustained by mechanization.

Prior to radio all naval captains were given absolute authority over their territories. They were trained in very broad-based programs to be comprehensivists. These sea warriors still retain the respect of their crew, even though their autonomy has been circumscribed by better communications systems.

Even for landlubbers, the ocean is the touchstone for measurement. Even though sea-level is a mathematical average and pulsates twice daily with tides and moment to moment waves, it is used to determine elevation. The earth fluctuates also, heaving and sighing.

Perhaps soon the ancient connection between Poseidon's sea and his sacred animal, the horse, will be reactivated. Technology now has the means for efficiently harnessing tidal power for the production of electrical power. This means a new connotation for "horsepower," as it relates to the sea.

Other keywords for Poseidon include the following:

Anger, aquatic, brooding, breakers, currents, dolphin, bathyscaph, horserace, horsepower, earthquake, irrationality, liquid, knots, hurricane, gold, jet black, impressionable, mighty, hypertension, moody, maritime, merchant marine, nebulous, nautical, navy, non-linear, navigation, possessive, potent instincts, ripples, riptide, sacrifice, scuba diving, sea cruise, submarine, swells, surliness, shaking, older brother, suspense, self-reflection, submerge, quarrelsome, tempest, tormentor, tsunami, waves, undertow, undercurrent, quarrelsome.

INTELLECTUAL IDEA

Poseidon and his wave phenomena are also present in the human brain, as brainwaves. If Zeus is seen as the Reticular Activating System, with its act of "lighting up," and Poseidon is considered as older than, or prior to Zeus, he might well be considered as these primary pulsing undulations in the mind.

The pattern of neuronal activity in the cerebral cortical section of the brain can be recorded electrically. This is done by measuring the electrical potential difference between two points on the scalp. This EEG record shows how brainwaves manifest as oscillating voltage. Their two dimensions include frequency of oscillation and amplitude. The frequency predominantly determines the amplitude of the brain waves, but there can be fluctuations of amplitude at a given frequency. Brain waves are broken up into four main categories, determined by the frequency of the wave, and associated with different mental states.

BETA: This is the brain wave of ordinary consciousness. It is characterized as the state of being awake, alert, and concentrating. If this state is maintained for a prolonged period, it becomes associated with feelings of tension, worry, fear, or anxiety. Lower brain states are necessary on an occasional basis to maintain the alert aspect of this state. A visual-identification in one's mind's eye occurs; a state where images are identified with form and specific objects.

ALPHA: This is also a conscious state, but identified with the mental experience where images aren't identified. It has come to be associated with feelings of pleasure, pleasantness, tranquility, serenity, and relaxation. It can also imply a relaxed concentration, or light meditative state. It is also a place of visualization, creativity, light sleep and dream states.

THETA: Traditionally labeled unconscious by Western medicine, this state can be entered with awareness. Those trained in yoga, autogenics, or biofeedback can achieve this state and retain consciousness. Theta has come to be associated with memory, dreams, imagery, imagination, and healing states. These brainwaves are present during hypnogogic imagery, daydreaming, sleep, cognition of problem solving, future planning, switching thoughts, remembering, and creativity.

DELTA: Predominately associated with non-dreaming sleep or deep sleep. There are some reports of individuals entering this brain wave pattern and still retaining consciousness. If it is achieved while maintaining a conscious state, "out-of-body" (OOBE) experiences are subjectively experienced and reported.

GAMMA: A state of hyperarousal which is very destructive to the brain if maintained for any period of time. The brain is operating too fast and overloads or "burns out."

The psychological concept associated in Jungian psychology with Poseidon is the archetype of the shadow. His realm is the mixture of light and dark qualities. Shadows are created in painting by mixing a color with its opposite. This tones down the hue of a color to a shade of gray. Every painter knows that you cannot even create the illusion of depth without the shadow-aspects to round-out the form. Values of the gray scale are determined by the admixture of shadow and light. A darker value, by nature, contains more shadow.

The shadow archetype includes those qualities of the individual which have been rejected, repressed into the depths of the subconscious, or un-lived. In short, it represents the inferior side of life with its own agenda. Even though it is autonomous, it is generally judged negative from the ego's point of view. Yet, it gives us our depth, and is a useful soul-guide in consciousness journeys.

As a rule of thumb, the stronger the persona (social mask), the more repressed the shadow side. It is forced to conform to collective expectations, norms, and values. This can be especially true in religious people who identify only with the "good" qualities of brightness and light. This creates a one-sided imbalance, and brings the shadow out in unconscious rebellion to compensate the stress created by the repression.

Even in physics, the brighter the light, the deeper the shadows which are cast. Jung even explored the premise that there is a shadowy aspect to the subconscious of God in ANSWER TO JOB. Job wrestled with an angel, much like we wrestle with our values and issues today. He wondered about the suffering inherent in the human condition.

When the shadow and instinctual life aren't differentiated, they form a contaminated state of consciousness which conditions the holder of this fantasy to experience "devilish" forms. This shapeshifter is considered the strongly polarized opposite of "absolute good"--thus we see the devil holding Poseidon's trident in popular imagery.

A conscious realization of the shadow produces an inner reconciliation which might open the door to manifestation of some of the un-lived potential for good. We gain release from our illusory role as "innocent victim" which causes us to project the victimizer role onto others.

By accepting our own inner tendencies to violent upheavals we reintegrate that portion of ourselves symbolized by Poseidon, ceasing to impose it on others in our environment. Projecting the shadow is a defense mechanism--a denial--which prevents us from seeing our own weaknesses.

We must continue to search for evidence of this dark force, and confront the shadow again and again. We are never "rid" of it, once and for all. Our instinctual side is a natural part

of our being. Every human is capable of any act when compelled by necessity, survival, or other factors. But we needn't live them out, by unconsciously "acting out", polluting the general environment with our personal darkness. We can come to know the shadow through dreams and self-analysis, through our angers, delights, and projections of enmity.

The shadow contains bright and good qualities also. These are our deeply hidden, un-lived virtues--our potential. They may not be evident in our habitual behavior, which may be socially programmed, but often rise to the surface in a crisis situation. We can recognize these qualities, because we tend to envy them in other people.

An integrated individual transforms through imaginative insights. This is another expression of Poseidon energy. By turning thoughts inward, and withdrawing projections from others, we release those around us from contamination with our preconceived notions.

Further readings on Poseidon may be found in,

"Poseidon: Darkening of the Light," a tape by Philip Zabriskie

THE ODYSSEY by Homer

ZEUS AND HERA by C. Kerényi

JUNG AND TAROT by Sallie Nichols

SPIRITUAL MYTH

A curious point regarding Poseidon (or Neptune) compared to other planetary powers, is that his character bears little resemblance to those assigned Neptune by modern astrologers. Neptune in astrology has little resemblance to the sea-god, perhaps because Neptune wasn't even known to ancient Chaldean astrologers.

In any event, Neptune is ascribed a sense of sacrifice and detachment, and this links it to THE HANGED MAN of Tarot. Through meditation we learn that the soul is a drop from the Ocean of Consciousness. In other words, the separate ego is not the ultimate truth, and must merge back into Godhead as a bubble merges in the ocean. THE HANGED MAN symbolizes the descent of Light into darkness to redeem it.

In the personality, this Spirit of the Mighty Waters, creates a reversal of thought in terms of values and priorities. What formerly seemed important becomes less so, and what was ignored comes to the fore. There is a redemption of and through the "submerged" element. The highest arc of Poseidon-personality transmutes from generative power through earthly authority (credibility, empowerment) into personal transmutation. The material or instinctual nature no longer dominates the soul.

The transformative formula of Poseidon is based on the sacrifice of one form for another. Self-sacrifice (of the small self) leads to cosmic consciousness, just as selfless service to humanity leads to personality development. Sacrifice is a virtually inevitable part of life.

In EGO AND ARCHETYPE, Edward Edinger describes four basic types of sacrifice which are possible:

1. "God sacrifices Man": This indicates that the ego is inflated or too full of its own importance, and the divine realm of the archetypes is perceived as empty or void. Only that which is empty may be filled. The balance must be shifted from ego to the values of the higher Self.

2. "God sacrifices God": This formula is symbolized by the Mass or eucharist. When the ego is vacuous, or devoid of spirit, it needs a nourishing influx of moisture and substance from the divine forces of the collective unconscious. It needs to absorb nourishment from the revivifying powers of the subconscious.

3. "Man sacrifices God": When our ego devalues the divine forces which comes to us through the subconscious, we are attempting to steal the fire of the gods for our personal use in conscious life. This is like trying to fulfill mundane desires through magic, and it provokes a reactionary attack from the subconscious.

4. "Man sacrifices Man": The principle here is of personal transformation and transcendence through surrender and meditation. It is not motivated by compulsion or competition with the subconscious, but by the principle of loving cooperation. The eucharist becomes our own selves in a process of self-assimilation or feedback. We circulate personal and divine energies throughout ourselves. In alchemy this is a process called *circulatio*, or circulation of the light. This indicates merging the sacrificed ego-personality with the ocean of divine Bliss, yielding a sense of immortality.

Elemental water or "the Water of Life" is a spiritual metaphor of great power and potency. But it is more than a metaphor--it is a living reality. The sea of life or primal water is the womb of life. The oriental notion of the Tao is tied to the archetypal nature of water--yielding, flowing, seeking the path of least resistance, doing by not-doing. It is the state of no-form or total, chaotic dissolution from which all form is created or born.

When we dive deep in that vast abyss within, we lose the separate personal self and find the deep Eternal Self. Meditation is the prescribed method of gaining this form of consciousness. When sensory awareness is suspended, the sages note that, "Muddy water let stand becomes clear."

CULTURAL COUNTERPARTS

SHIVA (Hindu)

NEPTUNE (Roman)

EA (Babylonian)

AEGIR (Norse sea-god)

TARINGA-NUI (Oceania sea-god)

OLOKUN (West African sea-god)

CONTEMPORARY EXAMPLES

The obvious fictional character much like Poseidon is Captain Nemo of the Jules Verne classic **20,000 LEAGUES UNDER THE SEA**. Another tempestuous personality is the obsessive Captain Ahab from the novel **MOBY DICK**. Other literature about this archetype includes the plays "THE TEMPEST," and "EQUUS."

A modern Poseidon was Aristotle Onassis, shipping magnate, whose tumultuous romances with Maria Callas and Jaqueline Onassis captured the interest of the world.

On the positive side, the name of Jacque Costeau is synonymous with oceanographic studies of all kinds. His voyages on his ship, the Calypso, bring us images of the romantic lure of the sea with its incredible diversity of life.

KEYWORDS

Tempest, river, potent, springs, horse, trident, dolphin, fish, ram, revolt, ambition, lakes, conflict, dispute, submit, exchange, magnificence, seize, cunning, fury, rage, infidelity, endeavor, infuriating, profanity, navigation, drought, whirlpool, whitewater.

DIALOGUE WITH POSEIDON

The list of negative characteristics assigned to Poseidon reads like a litany of shadow-traits. Since he governs the entire depths of the unconscious realm, there is always the possibility that these forces will erupt from below at any moment.

Those subterranean rumblings in our bodies and shaking sensations are the visceral experience of Poseidon--direct experience of this primal force. They signify messages from the unconscious which supercede our normal consciousness or "head trip."

This is one aspect of THE HANGED MAN who is suspended upside-down. Rather than "getting rid of" these symptoms, we can get into them, deeper and deeper by exploring them through consciousness journeys within the psyche. Dialogue with Poseidon may be more like an infused surrealistic impression than a discussion.

Self-assertion is probably the single most positive trait attributable to Poseidon, particularly in the business or political arena. He helps us defend ourselves, insisting on our right to cater to our own needs. Generosity and big-heartedness can also come through this archetype.

According to Peter Lemesurier in THE HEALING OF THE GODS, his shadow-traits include the following:

"Destructive unconscious urges; barely suppressed savagery; ever-menacing anger; irrationality; surliness; bloody-mindedness; rebelliousness; vengefulness; quarrelsomeness; power-mania; material acquisitiveness; empire-building; jealousy of others' possessions; territorial disputes; indiscriminate extramarital affairs; rape; intervals of pederasty or homosexuality; provocation of women's masculine side."

Symptoms include involuntary nocturnal orgasms, lymphatic disorders, possible hypertension, or heart problems."

POSEIDON IN YOUR LIFE

1. Poseidon's once wider dominion was supplanted by Zeus. If you are an older brother was there a time in the family when your influence was superceded or curtailed by a brighter young brother? Did you ever complain or grumble at the sovereignty of an older sibling?

2. Have you ever experienced the powerful effects of an earthquake, hurricane, or violent flood?
3. Do you ever feel a shaking in your body? What are the circumstances and emotions that bring this on (i.e. anger, anxiety, frustration, sudden reversal, etc.)?
4. What do you personally struggle with or against?
5. Has there been a time in your life when you were "upside down"? Did the messages from your
6. Have you ever had violent outbreaks of irrational temper, which might be described as "earthshaking"? If this response is chronic, how do you manage these states?
7. Have you ever felt "in suspense" in life, waiting "in limbo", suspended over an abyss of the unknown, fear, or uncertainty? Can you relate to this time of "suspension" (hanging in mid-air) as an initiatory ordeal or transmutation? What did the transition ultimately bring?
8. Do you have problems with possessiveness, either of other people or material possessions? What would others say about you in this regard if you ask for an objective opinion?
9. What infuriates you, or enrages you?
10. Have you ever had the impression of being (emotionally, imaginally, or otherwise, perhaps in a dream) sucked down into a whirlpool, or whirled in a tornado, in "the eye of the hurricane", or black hole in the abyss of space? Were you ever overwhelmed by unconscious forces welling up from below?
11. Can you recall a time of "personal drought" when the life-giving moisture of deep instinctual forces seemed "dried up" in your life?
12. What do you expect from the sacrifices you are making? What are you devoted to?
13. What do you need to give up? What are you trying to escape? How are you seeking higher knowledge?

*Fearsome Thanatos, harbinger of death,
With Hypnos, his brother, conveys man to rest.*

CHAPTER XIII: DEATH & REBIRTH

THANATOS

Contemplation of death conjures up images of disintegration, dismemberment, flying apart. In consciousness journeys, the dreamer may be sucked through a swirling vortex into a profound blackness--black that is blacker than black--cold and utterly empty. This state of nothingness feels different to individuals, depending on their personal experience with various aspects of death.

Thanatos-consciousness may be an encounter with an apocalyptic whirlwind which rends one limb-from-limb, then fragments the sense of self even further down to cellular, genetic, and atomic consciousness. The imagery of apocalypse and natural disaster surfaces as the ego glimpses its immanent doom. The dance of Death is a whirlwind of transformation. Ego-death is a requirement for opening to the broader realm of transpersonal reality. It heralds a change in the form of consciousness.

The crux of this consciousness process is reaching the creative state of undifferentiated consciousness. It is in this state that old primal self images dissolve, and from it the new ones form. It is a death because at the deepest levels we define ourselves by this image and what it has created and frozen into our lives. It ultimately means the dismemberment of our former personality and life patterns. We are it and it is our death when it dissolves into the infinite possibilities of chaotic consciousness. This unformed consciousness--which we often mistake for death-- is really the essence of our vitality and life force. It is the energy we can use to recreate ourselves in every instant of time. It reaches our awareness through dreams (Hypnos) and the flow of our imagination.

Yielding to ego-death leads to this consciousness, whether it comes through therapy or a spontaneous near-death experience (N.D.E.) or a closely witnessing death. This consciousness can result from a brush with one's own death or that of another. Dissolving is a death that opens into a field of unformed consciousness with infinite creative possibilities. But we must go through the fear and pain which surrounds this experience to reach this consciousness state.

There may be sensations of falling, or floating-falling, or flying off in all directions at once. Eventually all parts of the self are dismembered by the centrifugal forces experienced in the vortex. With a sweep of His scythe, the unseen specter of death cuts us down utterly. Sensations of spinning and being drawn deeper create intense dizziness and disorientation, even nausea. Dismemberment in the spiral often leads to a sense of being "no-thing."

The experience of another's natural death is awesome, as is that of birth. Being there, one finds that at that amazing moment there is a giant dilation in the flow of time; a window opens into that other vast realm which is slow to close. It may capture part of oneself for a time, creating a mini-death, or death-in-life. The changes which ensue may be voluntary or involuntary. It may trigger a regression as well as a profound opening to transpersonal awareness. Particularly when a parent or child of ours dies, we are permanently changed in ways we may never have imagined. Some of them have to do with what we imagine or believe the nature of death and an afterlife to be.

In myth, Thanatos or Death, naturally supplied Hades with his subjects. Thanatos is the son of Night, who in turn was born from Chaos. The godform of Thanatos is pictured alternatively as dressed in a black robe holding the fatal sword, or as a winged spirit,

resembling his twin brother Hypnos, or Sleep. Hypnos also lives in the underworld. He induces the little death of sleep with his magic wand or by fanning his dark wings.

In eastern mysticism, death is personified in feminine form as the dreaded and dreadful goddess Kali. Her cult was portrayed in the blockbuster movie *INDIANA JONES AND THE TEMPLE OF DOOM*. Graveyards or cemeteries are the haunts of this bloodthirsty goddess. Her image is built of a myriad of skulls and bones. Tantric Buddhists contemplate her, and their own personal demise, by visualizations of rotting corpses, or meditating in graveyards where the remains are strewn about. They seek liberation of their human souls through immortality.

Shiva, the Destroyer, consort of Kali Ma is the masculine form of this force. Shiva is the prince of demons, who brings pestilence and death. Paradoxically, he is also the slayer of demons. He is the dissolver of outworn forms--destroyer of all things. Shiva's dance is a process of universal creation and destruction, a symbol of the reconciliation of opposites. This powerful unbridled erratic force also carries archetypal healing capacity within its pattern. This archetypal drive was the theme of Gore Vidal's *KALKI*.

In our modern society, questions of life and death create issues such as moral positions on suicide, abortion, euthanasia, and capital punishment. These questions bear directly on who we are and shall be. Mankind is also wiping our entire species from the face of the earth daily. The Biblical injunction "Thou shalt not kill," has been misinterpreted as "Thou shalt not murder thy fellow human beings," while the pointless slaughter of animals for exploitation continues. Spiritual teachers tell us that all life is sacred.

As an archetype, Thanatos represents a fundamental soul-quality present in the psyche. From this perspective all life aims toward natural transformation and recycling through the process of death. The soul gains knowledge of itself, not only through love, intellect, and madness, but also by reflection on the great unknowable which lies past the gates of death. The sorcerer's apprentice Carlos Casteneda was cautioned to keep death as his constant companion, always referring any powerful decisions to this touchstone of meaning. How differently we might act if we reflected on our actions in light of the constant possibility of immanent death.

Psychologist Sigmund Freud spent as much of his career reflecting on death and the physical pathology of the body as he did obsessing on sexual motivation. He not only contemplated it in his patients' behaviors and fantasies, but in his own as well. He was phobic about cancer, which he later contracted in the mouth and jaws from years of smoking. As the father of depth psychology which focuses on the symbolic underworld, he introduced us to the world of Thanatos and Hades.

Freud pointed out that "pathologizing" is a metaphorical language of the psyche, allowing it to deliteralize the events of our daily life. Psychopathologies had been considered trivial, but Freud showed that they contained a previously invisible depth of meaning. The nature of that meaning revealed the profound relationship of death to life. Dreams, symptoms, and afflictions became the inroads into the dark realm of the subconscious.

Freud resurrected the intimate symbolic connection between soul and death for Westerners. Eastern religions had never lost this connection. He showed how the perspectives of Hades and Thanatos dissolve the organic, social, and emotional aspects of human life. Fantasies of putrefaction, decay, sickness, compulsion, and suicidal impulses disclose this psychological perspective which seeks deepening. Freud ended his own life enraptured or fascinated with this train of thought.

In Tarot, the Death card means being stuck in old patterns, needing to eliminate restrictive habits, beliefs, blocks and outworn ways. This painful uprooted may involve eliminating people or things from your past. The uprooting of habits is surgically cutting yourself free for entrance, assimilation and integration into a new state. It is liberation and renewal which makes new growth possible. Deep emotions can be like a "little death", as in intense sexual experience. Giving up one's sense of self means merging with another or Cosmos, cutting through superficialities, butting to the bone. Our energy is radically transformed from one shape or form to another.

PHYSICAL FORM

The food-chain extends beyond the notion of "Nature red-in-tooth-and-claw" to the cosmic and intergalactic levels. As in the sea, the 'little fish' are eaten by the 'bigger fish,' and Death awaits all forms in their own time-scale.

By 1998, astrophysicists were fairly confident they had detected a massive black hole at the center of our Milky Way galaxy, and they dubbed it the Great Annihilator. Black holes are massive stellar objects whose gravitational fields cause the space and time around them to fold in upon itself—creating a so-called singularity from which nothing, not even light, can escape. Fountains of ejected antimatter were detected by 2001, and despite competing theories, such as gravastars, black holes are now widely presumed to lie concealed in the hearts of most, if not all galaxies. The galactic core is viewed from Earth through the constellation Sagittarius, and the Annihilator is known as Sgr A Star.

Something hugely massive is at the center of the Milky Way, acting like a galactic puppeteer by providing the tremendous gravity needed to tug at stars with invisible strings. If it is in fact a black hole, then it must meet the technical definition laid out by Einstein's general theory of relativity: All its mass must be locked and hidden inside a sphere known as an event horizon, beyond which nothing -- not even light -- can escape. Just before the matter swirls into a black hole, scientists predict it will approach the speed of light and become superheated, giving off X-rays prior to entering the event horizon.

The Annihilator, a gravitational monster, has the mass of 2.6 million suns, and is smaller than an atom. The temperatures in its vicinity top 10 billion degrees. It creates vast luminosities in its area, accelerating matter to .5 the speed of light. But once that matter crosses the black hole's "event horizon," not even light can escape the violent gravitational well.

Tidal force creates a whirlpool, a giant accretion disk of "snacks" to feed the hungry gaping maw -- sending the "hole food" into the veritable jaws of Death. Magnetic fields ripple through the large clouds of dust. Antimatter shoots up from the core straight out of the

disk for around 5,000 light years, then annihilates with ordinary matter in gargantuan bursts of energy. It sucks in matter and belches radiation.

Depending on the rate of matter flow, the massive pressures also create a nursery for new stars, which is more or less active at various points in our galactic evolution. There are what are called "Seyfert" and cosmic jewel "starburst phases" in that cyclic process. The black hole provides star-forming shocks which compress surrounding gas and dust clouds to the point of star formation. In Morris' theory, the galactic core goes through Seyfert, starburst and quiescent periods, which might mythopoetically be related to the cosmic cycles known as Days and Nights of Brahm. The Milky Way is now fairly quiescent.

The Annihilator is 24,000 light-years from Earth. But astronomers had not been able to rule out another possibility, a dense cluster of dark stars. Then, in 1999, NASA launched the Chandra X-ray Observatory. Chandra is a telescope that orbits the earth in space. Instead of seeing light like our eyes do, Chandra sees X-rays. The astronomers knew that as stars fall into black holes, they give off X-rays as they're being ripped apart. The hapless matter, before plunging into the abyss, becomes super dense and hot, releasing intense X-ray emissions.

So if they looked at the Milky Way's center with Chandra, and saw the right kind of X-rays, they could feel sure there was a black hole. By September, 2001, direct observations offered the first authoritative evidence that a black hole resides in the heart of our galaxy, The Chandra detected an X-ray flare leap from the center of the Milky Way, presenting almost conclusive proof of the scientific oddity.

Large flares periodically erupt from the black hole as chunks of matter fall into it. The intense burst, heralding the fatal plunge of matter into oblivion, allowed astronomers to estimate the size of the black hole lurking in the central Milky Way at no larger than the distance between the sun and Earth. But astronomers had not been able to rule out another possibility, a dense cluster of dark stars. The Milky Way's black hole has been described as the 'Holy Grail' of astrophysics. Its edge, the event horizon, "separates our Universe from another world", says Melia. "Some say that when you cross the event horizon, time becomes space and space becomes time."

The Great Attractor is another cosmic structure, drawing or apparently devouring matter. During the 1980s, a group of astronomers, dubbed the "Seven Samurai," examined these peculiar velocities and determined that a "Great Attractor" is pulling on every galaxy within a region of space 300 million light-years across. The Great Attractor is believed to be located in the direction of the constellation Virgo. The local galaxies, including the Milky Way, appear to be rushing toward it at approximately 700 kilometers per second. On the opposite side of the Great Attractor, the Samurai have identified several galaxies moving toward us, which indicates that the source of the gravitational pull is a relatively small, supermassive object.

In the 1980's, astronomers Alan Dressler, Sandra Faber, David Burstein and Gary Wegner had investigated thee motions of the Virgo cluster of galaxies, the Local Group (which contains the Milky Way), and the Hydra-Centaurus supercluster, and discovered that these vast collections of thousands of galaxies were also being tugged, gravitationally, by what

appeared to be an even larger collection of matter. This collection of matter, which they estimated was located 3 times farther away than the Virgo cluster (which is 77 million light years distant) in the direction of the constellation Centaurus, was dubbed the Great Attractor.

The Milky Way and Andromeda galaxies are the dominant structures in a galaxy cluster called the Local Group which is, in turn, an outlying member of the Virgo supercluster. Andromeda--about 2.2 million light-years from the Milky Way--is speeding toward our galaxy at 200,000 miles per hour. This motion can only be accounted for by gravitational attraction, even though the mass that we can observe is not nearly great enough to exert that kind of pull. The only thing that could explain the movement of Andromeda is the gravitational pull of a lot of unseen mass--perhaps the equivalent of 10 Milky Way-size galaxies--lying between the two galaxies.

The team of astronomers even found that galaxies located on the other side of the Great Attractor were being pulled in by it. In other words, rather than these collections of galaxies expanding with the rest of the universe, they were being held back very slightly by the gravitational pull of the Great Attractor. Unfortunately, much of the predicted mass in the Great Attractor is hidden behind the obscuring dust and gas in the plane of our Milky Way, so it is very hard for astronomers to study this collection of objects directly; or to independently confirm that it is indeed there in the first place!

Somewhere behind the Milky Way disk, for example, are crucial parts of the two biggest structures in the nearby universe: the Perseus-Pisces supercluster of galaxies and the "Great Attractor," a gargantuan agglomeration of matter whose existence has been inferred from the motions of thousands of galaxies through space. Observations also show a tantalizing number of bright and nearby galaxies in the general direction of the disk, suggesting there are many others that go unseen.

Without knowing what lies in our blind spot, researchers cannot fully map the matter in our corner of the cosmos. This in turn prevents them from settling some of the most important questions in cosmology: How large are cosmic structures? How did they form? What is the total density of matter in the universe? The unseen mass inhabiting the voids between the galaxies and clusters of galaxies amounts to perhaps 10 times more than the visible matter. Even so, adding this invisible material to luminous matter brings the average mass density of the universe still to within only 10-30 percent of the critical density needed to "close" the universe.

Might the universe be "open" after all? Cosmologists continue to debate this question, just as they are also trying to figure out the nature of the missing mass, or "dark matter." and "dark energy." A River of Galaxies, to rival that of the River Styx is flowing through interstellar space. This mass migration includes the Local Group, the Virgo Cluster, the Hydra -- Centaurus Supercluster, and other groups and clusters for a distance of at least 60 Mpc up and downstream from us. It is as if a great river of galaxies (including our own) is flowing with a swift current of 600 km/s toward Centaurus.

Calculations indicate that ~10¹⁶ solar masses concentrated 65 Mpc away in the direction of Centaurus would account for this. This mass concentration has been dubbed the Great

Attractor. Detailed investigation of that region of the sky (see adjacent image of the galaxy cluster Abell 3627) finds 10 times too little visible matter to account for this flow, again implying a dominant gravitational role for unseen or dark matter. Thus, the Great Attractor is certainly there (because we see its gravitational influence), but the major portion of the mass that must be there cannot be seen in our telescopes.

Are these megastructures contemporary analogies of those from the Bible? John describes the constellation Virgo and Hydra in Revelation 12:14 evidenced by the description he (John) used in the second half of the sign that he describes in the heavens. Indeed the constellation Hydra, sometimes called "Hydra the Serpent or the Dragon" stands before the constellation in the early morning hours in Israel in the months of September/October (see Job 26:13; Ps. 74:14; and Is. 27: 1). Here John also describes how a third of the stars of the heavens are drawn by the tail of the dragon and cast to the earth.

[Job 26:13 By his spirit he hath garnished the heavens; his hand hath formed the crooked serpent.

Psa 74:14 Thou brakest the heads of leviathan in pieces, and gavest him to be meat to the people inhabiting the wilderness.

Isa 27:1 In that day the LORD with his sore and great and strong sword shall punish leviathan the piercing serpent, even leviathan that crooked serpent; and he shall slay the dragon that is in the sea.]

Is this mythopoetic or just a meaningless bit of information or was John given some insight to the powers and design of the cosmos? In the July, 1993 issue of *Astronomy Magazine* there is an article entitled, "Cosmic Tug of War" by David Burstein and Peter L. Manly. In the article, they describe this hidden force found in the constellation Centarus. This "Great Attractor" of hidden dark matter is located in and at the very tail of "Hydra the Serpent or the Dragon." But what is most interesting is how they describe just what this "Great Attractor" is attracting or drawing to it. "Whereas galaxy clusters contain many galaxies in a small region, the Great Attractor has its many galaxies spread over an enormous volume of space. As we see it, over five thousand galaxies in the Great Attractor splay across 60 degrees of the sky, covering one-third of the southern hemisphere."

This truth about the "Great Attractor" was not officially discovered and released by scientists until 1987, but John describes this sign in the heavens the same way exactly 1900 years earlier (Rev. 12:1-4). "Our local group of galaxies, which consist of our galaxy, Andromeda, and some 30 smaller galaxies is moving at about 630 km per second towards this Great Attractor." That is about 391.5 miles per second or about 23,488.25 miles per hour. We are being drawn toward the constellation Centarus at the tail of Hydra, which is also toward the southern Crux (The Cross). As the seven discoverers of this Great Attractor have concluded, "we will not stop falling into Virgo Supercluster and the enormous mass of the Great Attractor will increasingly draw us towards it." As we get closer and closer to the Great Attractor, it will increase its pull upon the earth. The earth and the local group that it is part of, will be caught up in this celestial tug of war. The powers that are at work in our universe are absolutely awesome.

The Great Attractor is about 200 million light-years away [see "The Large-Scale Streaming of Galaxies," by Alan Dressler; *Scientific American*, September 1987]. The Local Group seems to be caught in a cosmic tug of war between the Great Attractor and the equally distant Perseus-Pisces supercluster, which is on the opposite side of the sky. To know which will win the war, astronomers need to know the mass of the hidden parts of these structures. Both are components of a long chain of galaxies known as the Supergalactic Plane. The formation of such a megastructure is thought to depend on the nature of the invisible dark matter that makes up the bulk of the universe. Chains of galaxies should be more likely in a universe dominated by particles of so-called hot dark matter (such as massive neutrinos) rather than by cold dark matter (such as axions or other hypothetical particles). But astronomers cannot distinguish between these two possibilities until they map the structures fully.

The true richness and significance of this cluster has become clear in the recent searches. Kraan-Korteweg, with Patrick A. Woudt of the European Southern Observatories in Garching, Germany, has discovered another 600 galaxies in the cluster. The observed velocities of the galaxies suggest that the cluster is very massive indeed--on par with the well-known Coma cluster, an agglomeration 10,000 times as massive as our galaxy. At long last, astronomers have seen the center of the Great Attractor. Along with surrounding clusters, this discovery could fully explain the observed galaxy motions in the nearby universe.

The Milky Way, too, has its prey: in 1994, when Rodrigo A. Ibata, then at the University of British Columbia, Gerard F. Gilmore of the University of Cambridge and Michael J. Irwin of the Royal Greenwich Observatory in Cambridge, England, who were studying stars in our Milky Way, accidentally found a galaxy right on our doorstep. Named the Sagittarius dwarf, it is now the closest known galaxy--just 80,000 light-years away from the solar system, less than half the distance of the next closest, the Large Magellanic Cloud. In fact, it is located well inside our galaxy, on the far side of the galactic center.

Because the Sagittarius dwarf lies directly behind the central bulge of the Milky Way, it cannot be seen in direct images. Its serendipitous detection was based on velocity measurements of stars: the researchers spotted a set of stars moving differently from those in our galaxy. By pinpointing the stars with this velocity, looking for others at the same distance and compensating for the light of known foreground stars, they mapped out the dwarf. It extends at least degrees from end to end, making it the largest apparent structure in the sky after the Milky Way itself. Its angular size corresponds to a diameter of at least 28,000 light-years, about a fifth of the size of our galaxy, even though the dwarf is only a thousandth as massive.

Though it rarely comes through participation in the food chain nowadays, at the human scale, annihilation through natural or accidental death is the obvious physical expression of this Thanatos force. DEATH has often been avoided or glossed over by Tarot commentators, who would prefer to stick to the symbolic meaning rather than stark reality; and yet somehow our culture is obsessed with death. Our society is making strides towards overcoming the phobic or denial response through such infrastructures as the hospice movement. Death and Dying is not surrounded by such taboo as it once was. The fact is that death is a natural part of life, and contains its own beauty, meaning, and vision.

Symptoms associated with this archetype of being seized down into the underworld, not only include death, but also appear in coma and the sleep disorders of Narcolepsy and Catalepsy. In narcolepsy, a person falls profoundly asleep with no warning during any activity. It is characterized by specific brain patterns. Catalepsy literally means "to seize down." Consciousness and feeling are suddenly and temporarily lost, while the muscles become rigid as in rigor mortis. There is no response to external stimuli, so in the past cataleptics were mistaken for dead and sometimes buried. Edgar Allen Poe used catalepsy as the theme in *PREMATURE BURIAL*, playing on the horrific primal fear of "living death."

In physics, Thanatos may be symbolized in the natural universe by the Second Law of Thermodynamics, also known as the Law of Entropy or Disorder. Briefly, this law describes how in the long-run there is certainty that order will give way to disorder in any closed system, macrocosmic or microcosmic. All earthly life involves organisms which function as closed systems, which are subject to the loss of order. Therefore, physical death is inevitable. That which takes form, ultimately dissolves that form and dies. In thermodynamics, entropy means that all energy seeks to become evenly distributed. It diffuses toward a neutral condition of "heat death." In human and universal terms, warmth means life.

To retain the will to live as humans we resist diffusion, attempting to remain orderly, organized, stable, and solid. Spiritual practice and discipline is one means of increasing order, or tapping into the life-promoting forces of negentropy (see XI THEMIS). On more mundane levels we watch our diets to be sure we take in enough life-giving nutrient to sustain mental and emotional stability.

Yet, despite our conscious efforts, the reaper comes closer each and every day. There is a primal instinct within us which yearns for that final goal of life, that great moment when eternity yawns wide to receive us. Freud called it Thanatos, and contrasted it with life-promoting Eros. Freud noticed the "longing" and drivenness toward death, which appears as self-destructive tendencies and aggression toward others. This destructive urge is primal. Both Jung and Freud recognized the archetypal "murderer and suicide in us." It surfaces in images of grisly, destructive acts.

Thanatos functions within the cellular and genetic level. Every day thousands of worn out cells die and are replaced through the process of tissue regeneration. Our entire body is replaced about every seven years. Another little "death" comes as sleep each night. Thanatos inhabits our dreams as well, with images of death, torture, mutilation, and rotting. Then in the morning we are resurrected to a seemingly new life.

Occupations associated with Thanatos include:

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b ut c h er co ffi n m a k er co ro n er gr a ve di g ge r ex ec ut io n er h os pi ce w or k er h yp n ot is t		
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EMOTIONAL IMAGE

The term 'threshold' evokes images of entering and leaving, passages, crossings and change. It marks the point at which choices and decisions must be made in order to move on, and it would be unusual to think of it as a place to stay, a place of permanent existence. There are, however, situations in the lives of people in which transitions from an old situation to a new one, one social position to another, are hampered or cannot be completed successfully. Individuals who are caught in between two stages of development, who do not hold clearly defined positions within their social system, feel marginal, excluded, without identity nor influence.

A number of anthropological studies (by Arnold van Gennep, Victor Turner and Mary Douglas) have provided insight into forms of threshold existence (liminality) in modern society and have accounted for the difficulties that individuals have to face in these positions. They have also shown, however, that individuals who are caught in such positions are usually provided with a clear view on the social structure from which they are excluded, and that they carry the potential for critique of the norms that prevail within that structure.

The threshold symbolizes an in-between position. For individuals in in-between positions, as well as the conflicts that are caused by such positions, the literal meaning of 'threshold' hardly needs any specification: it is the sill of a doorway, as the *Oxford English Dictionary* puts it, which has to be crossed when entering a house. It indicates the point at which the public outside world ends and the private, familial inside world begins. In more general terms it marks the place, line or border at which a passage can be made from one space to another. Such a spatial structure has an essential influence on social interactions: relationships and social status are negotiated at the threshold, one is either rejected from or welcomed to the other side. To gain admission and step over the threshold into someone else's space means to submit to the rules that are in force in that place. Social organisation decides whether we are included in or excluded from a social group, and political or religious reasons or social rank can account for the identification of a person with a certain group and space.

As these examples show, the threshold can be interpreted as a symbol of division, which determines social structure and our notion of 'self' and 'other'. As a literal and figurative point of passage, however, the threshold also stands for change: one can step over the threshold, enter new territory and leave everything else behind. Such a change can be a shift in time, as in the expression 'at the threshold of a new century'. It can also designate a decisive moment in one's personal development ('on the threshold of womanhood'), which means that one separates from a familiar situation and enters a new stage in life. In a religious context the threshold is a crucial element in initiation rites, indicating the passage from the profane to the sacred. 'Initiation,' furthermore, is a term that is not exclusively used in a religious context, but appears in all fields of social life, referring to a special ritual that opens the door, as it were, to a social group or new period in life.

In a psychological context the threshold symbolises a point at which a decision must be made. Decision-making can be experienced as the overcoming of a difficulty or crisis, as the necessity to take a decisive step. The eventual change will provide the protagonist with new knowledge, he or she will undergo a development and be different from the person that he or she was before the change.

A famous example of such a change can be found in the Book of Genesis: because of their decision to eat from the forbidden fruit, Adam and Eve are driven out of the Garden of Eden, which is both a territorial passage and a figurative transition as their status changes through their loss of innocence. This is the mythological threshold where mankind lost its immortality and entered the dominion of the Lord of Death, time and mortality. One is either "in" the paradisaical garden, or "out" of the Garden. And it is guarded by the Dweller on the Threshold whose sword will cut one down for trying to enter without mystic cache.

Decision-making is also an essential narrative element in fairy tales, where a vast number of princes or dragon killers or Bluebeard's wives have been standing in front of gates, caves and locked doors and have been losing their nerves about a decision that would bring either life or death, disaster or eternal happiness. It is interesting to note that decisions usually trigger off an irreversible process, which in many cases turns the threshold into a point of no return.

Last but not least one might also think of the magical component of the threshold in superstitious beliefs. In some cultures the threshold is considered to be a dwelling place of ghosts and the souls of the dead, who lead an existence in between the world of the living and the world of the dead. This is probably one reason why in some cultures and religions it is forbidden to step on it. In the majority of the examples above the threshold represents a point or border that divides two different elements and at which a passage can be made from the one to the other, or which simply marks a change or development in time or status.

That a passage or a change is in fact a much more complex process has been argued by the anthropologist Arnold van Gennep (1873-1957), who investigated changes in the lives and statuses of people and the cultural or religious rites related to these changes. Van Gennep distinguishes between different sorts of changes in the life of a person and classifies them as 'separation' (such as death), 'transition' (e.g. pregnancy) and 'incorporation' (e.g. marriage). Van Gennep points out that actually every change consists of these three forms, or phases:

phase 1	phase 2	phase 3
	"	"
	src="st	src="st
	relica.	relica.
separation	gif" transition	gif" incorporation
	width=	width=
	21	21
	border	border
	=0	=0
(from an old situation)	(passage)	(into the new situation).

To perceive death, for example, as a separation (from life) rather than an incorporation (into an afterlife) clearly depends on the point of view that ascribes to one phase more importance than to the other, and also on cultural and religious beliefs.

Van Gennep shows a special interest in the transitional phase: it is the period in which a person is in-between the former and the future social position or magico-religious state. In order to illustrate his point he refers to those early times in human history when countries did not border directly on each other but were divided by a neutral zone. In this zone travellers found themselves in a special situation as neither laws of the adjoining countries applied - they "wavered between two worlds", as it were (Gennep 18). Like this territorial passage, non-territorial transitions also consist of a moment or period of uncertainty, a liminal period. Such a period is accompanied by, or equal to, a life-crisis. 'Crisis' in this context is an interesting choice of vocabulary and could easily be misinterpreted.

Van Gennep does not refer to the term in a strictly psychological sense. He uses it to indicate the unstable social or magico-religious position of the person who undergoes a change: during the transition the state of that person remains uncertain as he or she has been separated from a clearly defined state in the past and has not been incorporated yet into a clearly defined future state. Such a state that evades definition is potentially dangerous, because it represents a moment or period in which the routines of life are disrupted. As one of the consequences, the person undergoing the change has no guidelines anymore to hold on to, which might not only have a disturbing effect on that person but also on his or her surrounding. As the title of his work, *The Rites of Passage*, suggests, Van Gennep was not only interested in the changes in the lives of people but also in the rituals that accompany these changes. These rituals have the function to give personal, social and cultural significance to a transition. They cushion the disturbances (such as a definition vacuum) that are caused by a change and help to incorporate the individual into a new group and return him to the customary routines of life (Kimball, introduction ix).

Van Gennep's theories were further elaborated by the anthropologist Victor Turner. Turner, however, did not only focus on the investigation of ritual processes in the lives of individuals but developed a more general theory of socio-cultural processes which he applied to changes and generative processes in modern societies. He primarily concentrated on the aspect of structure in Van Gennep's concept of passage. Parallel to Van Gennep's distinction between separation - transition - incorporation, Turner differentiates between structure - anti-structure - structure.

Turner does not define structure in the Lévi-Straussian sense as a system of 'unconscious' logical categories, but refers to it simply as "social structure", that is, a differentiated system of mutually dependent institutions and structural positions which may or may not be hierarchically ordered (Turner, *Ritual* 166). Individuals who are part of social structure are defined by their social positions, statuses and roles. Due to their position in a social network they are expected to act in accordance with certain customary norms and ethical standards bound up with their social position and the social system as a whole.

As soon as the state of a person is subject to change, such as in the process of maturation or at the initiation into another social position or group, this person is detached from its former position in the social structure, undergoes a process in which his or her structural

attributes become temporarily ambiguous or neutralised, and finally re-emerges into social structure, usually (but not generally) at a higher status level. Turner describes the attributes of a liminar (i.e. a person in a threshold position) as necessarily ambiguous, since this condition and these persons elude or slip through the network of classifications that normally locate states and positions in cultural space. Liminal entities are neither here nor there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonial. (Turner, *Ritual* 95)

Turner describes liminars also as structurally "invisible", by which he means that they are "no longer classified and yet not classified" (Turner, "Betwixt" 6) and therefore hard to grasp by a mind that is trained to perceive only clearly-defined objects: *The subject of passage ritual is, in the liminal period, structurally, if not physically, "invisible." As members of society, most of us see only what we expect to see, and what we expect to see is what we are conditioned to see when we have learned the definitions and classifications of our culture. A society's secular definitions do not allow for the existence of a not-boy-not-man, which is what a novice in a male puberty rite is (if he can be said to be anything).* (Turner, "Betwixt" 6)

The anti-structural period described by Turner is clearly identical with Van Gennep's definition of a transitional period. In his analysis of anti-structure Turner goes a step further than Van Gennep, however, when he starts to focus on other forms of liminality. Basically, he distinguishes between three forms of liminality. The first is ritual liminality, which forms the major point of interest in Van Gennep's works. Ritual liminality forms the central element in transitional processes (such as maturation) and in any kind of initiation ceremony. Ritual liminality always implies the re-incorporation of the liminar into social structure. The two other forms of liminality are outsiderhood and marginality. Unlike ritual liminality, outsiderhood and marginality usually are semi-permanent or permanent forms of anti-structural existence, which means that the re-incorporation of the liminar (i.e. the outsider or marginal) back into structure is often difficult, impossible or unwanted.

Outsiderhood is defined by Turner as a condition in which the individual is either permanently or temporarily "set outside the structural arrangements of a given social system, (...) or voluntarily setting himself apart from the behaviour of status-occupying, role-playing members of that system" (Turner, *Dramas* 233). Monastic orders, for example, show characteristics of anti-structure in that they emphasise the unimportance of status, property and other cultural *differentiae*. A monk has in common with a pilgrim that both retreat from social structure to enter "a stage of reflection" (Turner, "Betwixt" 14).

A pilgrimage, however, is a ritual process which is usually limited in time and ends when the pilgrim returns to his or her everyday life. A monastic retreat, on the other hand, is a liminal form of existence which has become a permanent condition. According to Turner, also shamans, prophets, hippies and gypsies count as outsiders, because they lead a life at the boundaries of or opposed to the prevailing social structure. Another representative of outsiderhood is the artist (whom Turner also calls 'edgeman' *Ritual* 128), who is careful not to be associated with established social structures and tries to resist classification. Outsiderhood, in short, is a condition in which an individual is located outside social structure, usually with no intention or ability to re-integrate.

Marginals, on the other hand, are "simultaneously members (...) of two or more social groups whose social definitions and cultural norms are distinct from, and often even opposed to, one another" (Turner, *Dramas* 233). Turner's definition of marginals is mainly based on an earlier sociological study of marginality by Everett V. Stonequist, who describes a marginal person as an "individual who through migration, education, marriage, or some other influence leaves one social group or culture without making a satisfactory adjustment to another and who finds himself on the margin of each but a member of neither" (Stonequist 2-3). Migrant foreigners, persons of mixed ethnic origin or women in a changed, non-traditional role, to name but a few, belong to the group of marginals. Due to their special social condition, marginals are highly conscious/self-conscious individuals who produce a high number of writers, artists and philosophers. The social significance of the marginal is summarised in Stonequist's work as follows:

The marginal man is a personality type that arises at the time and place where, out of the conflict of races and cultures, new societies, new peoples and cultures are coming into existence. The fate that condemns him to live, at the same time, in two worlds is the same which compels him to assume, in relation to the worlds in which he lives, the rôle of a cosmopolitan and a stranger. Inevitably he becomes, relatively to his cultural milieu, the individual with the wider horizon, the keener intelligence, the more detached and rational viewpoint. (Robert E. Park, introduction, Stonequist xvii-xviii)

Marginals, like ritual liminars, are betwixt and between clearly defined social states, but, unlike them, they have no prospect of a final stable resolution of their ambiguity: they will never be fully integrated into the one side or the other (Turner, *Dramas* 233). This ambiguous position distinguishes marginals from outsiders: while the former is situated in between different or opposing social groups, the latter retreats to a position at the boundaries of the established social system.

Even though anti-structure might show in different disguises (as ritual liminality, outsiderhood or marginality), its characteristics are often identical: liminars are symbolically or virtually bereft of status, which, consequentially, implies that they are also bereft of all the rights that go with status. This has two implications: first of all, due to the absence of a hierarchy of status positions, there is equality among liminars. This means that the occupants of one and the same anti-structural zone (such as monks in a monastic community, or hippies, or initiants in an initiation ritual) are aware of their equal positions.

Secondly, Turner ascribes to ritual liminars, outsiders and marginals a positive force, because liminal existence, whether temporary or permanent, forces the liminar to reconsider central values of his or her culture. Especially art, which best develops in the interstices or on the edges of society, is a medium which questions the prevailing social structure, and which is provoking, paradoxical, unusual, and above all, stimulating critical thought. The social counter-position allows liminars to have a clear view on the structure from which they are excluded, and although these individuals are usually bereft of privileges and in a condition of powerlessness, they carry the potential of critique of the norms of exactly that social structure. The danger that was ascribed to liminal *personae* by Van Gennep, in that they have lost their social attributes and therefore their guideline, takes a different shape in Turner's concept: anti-structure is not only "a stage of

reflection" (Turner, "Betwixt" 14) but a "realm of pure possibility" (Turner, "Betwixt" 7) in which new ideas and concepts are stimulated and generated, representing a danger to those who hold positions of power and command in social structure.

Babbitt argues that in many cases, people must undergo personal transformation in order to conceive of themselves as fully human. Babbitt uses the term "personal transformation" to mean a transformative liberatory shift in consciousness. She thinks that the necessity of such shifts is particularly clear in cases of systemic oppression, where members of oppressed groups must think outside the (oppressive) interpretative framework provided for them. Babbitt argues that in order for members of deeply oppressed groups to gain access to their objective interests they must sometimes undergo liberatory personal transformation. Such a transformation would include the sort of change that a person who has been deeply discriminated against might have to undergo in order to think of herself as possessing inherent dignity.

Knowledge is a road to some practical or theoretical success while understanding is necessary for mastering any situation either in a real or a virtual world. At the same time understanding is *only one of the hypostases of reflectivity*, that is why not understanding is to be taught but reflectivity. In this connection another metaphor could have been used: anti-reflectivity, defence of impulsivity against reflectivity is the road to the wrong. And as soon as that second road enters our consideration, the term 'reflectivity' and the corresponding notion begin approaching the topics of Law and Morality. It is only reflectivity that brings man to an experience of living with dignity, the idea of meeting death with dignity, an experience of loving concrete human beings along with loving one's own life and the whole human race.

Life, Death, Love make the experiential nucleus of our individual existence (Ustin, 1997), and this nucleus being present, the other few central meanings of existence will be manifested: Truth, Freedom, Beauty, the Good as the opposition of the Evil, maybe Fate as one's inevitable Future. To come to mastering all these existential meanings it is not enough to live one's natural life hoping for all this coming to the subjectivity of a "myself" as an individual. Just the opposite: one is to exercise hard, but exercise hard not in a ready-made knowledge, not even in a ready-made understanding but in reflectivity as the link connecting the lived experience with the gnoseological image under mastery (Kornienko, 1991). In reflectivity the image is tinted by man's individual experience, and as for experience, it does not immediately change while something more important is happening to it: it is our attitude towards it that is getting changed. In this way we are changed ourselves, and this change is one to the better if the process of reflectivity serves socially and morally adequate aims. Reflectivity is the only instrument for an individual and a collective to become wiser, kinder and purer.

In alchemy, the images of figurative death appear during the operation called mortificatio. This symbolic experience of death has to do with darkness, defeat, torture, mutilation, death, rotting, penance, and abstinence--denial of the body. Emotionally it means the primitive, violent outbursts, resentments, and pleasure and power demands of Poseidon--consciousness must die for the process of transmutation to occur. Paradoxically, we must make ourselves miserable for the process of transmutation to proceed. Then the dark images change to positive ones of growth, resurrection and rebirth.

In consciousness journeys, we find fear is the primary agent of mortification. Moving toward the fear and pain--deepening it--brings one closer to the transformation. Images of feces, excrement, overflowing toilets are found in dreams and during spontaneous journeys in Thanatos-consciousness. It feels like defeat and failure. Yet, to resist seems like madness--in fact, it induces madness. Those with near-death experiences tell us that to embrace death brings about deeper meaning and purpose in life.

Rotting corpses, decapitation, amputation, creeping, crawling worms and snakes, and particularly noxious odors like the stench of graves are images which are reported again and again. It is truly a journey through "the Valley of the Shadow of Death." Thus the psyche depicts the decay of outworn forms in preparation for new. It can be a voluntary death, giving up the old order for the sake of wholeness, the incorruptible body that grows from death. The infantile, personalistic ego is eclipsed. The journey to the land of the dead (collective unconscious) opens one to transpersonal life.

When we sit quietly we notice that images come--and images go, of their own accord. They are spontaneously created and destroyed through the psychic process. Some of these images are projections. When we withdraw them from their external "hooks" and re-own them, reabsorb them, they dissolve and "die." This furthers individuation. Plato said that "true philosophers make dying their profession," referring to the wisdom inherent in this process. What is natural and instinctual is allowed to die and transform.

Western attitudes toward death and dying have changed markedly in the last few years. There is talk of "dying with dignity," and efforts toward assisting suicide for the terminally ill. It is a reaction to the dehumanization of dying. The Hemlock Society has been in the forefront of this debate, advocating free choice.

There is much more talk about near-death experiences (NDE) and so-called astral projection or out-of-body experiences (OOBE). Astral projection follows the same process described by those who report NDEs. They say attention is withdrawn from the limbs and trunk to the pineal area in the brain. Then consciousness passes out of the body through the top of the head. Many then report traversing a winding tunnel, and heading into the Light.

Those who experience NDE find new purpose and meaning in life; they usually seek to render service to others, becoming more selfless, humble, and confident in the future. Having faced the ultimate fear they gain a sureness on the path of life. Frequently they receive some "message" about their duties in life, what they are to devote this "second chance" to achieving. They are infused with wisdom--simply knowing what they must now do. It is the death of selfishness.

Some report seeing other entities; they are met there by "others." Reports of this nature have offered some comfort or solace to the living, who inherently feel that these accounts offer descriptions of the passing into an afterlife. Others stoically feel that death is a final annihilation of the soul.

The hospice movement, initiated by Elisabeth Kubler-Ross, M.D., approaches the care of the terminally ill with respect. Her books, *ON DEATH AND DYING*; *QUESTIONS AND*

ANSWERS ON DEATH AND DYING; and DEATH, THE FINAL STATE OF GROWTH are now classics on the subject, as is Feinstein and Mayo's **RITUALS FOR LIVING AND DYING**.

Kubler-Ross and other have developed therapeutic programs using psychodrama to free up the negative aspects of the personality. This provides a means for the old personality to die, leaving room for the emergence of the new while life goes on.

Psychodrama allows the survivors of the terminal patient, as well as the patients themselves, a means of expressing and grieving old wounds and pains. This facilitates development of new patterns of living. The goal is to allow a fresh sense of personal well-being and contentment. For most, there is the discovery of new values and a deeper sense of appreciation for the gift of life--whatever life remains.

Keywords for Thanatos include:

abortion	mystical meditation
annihilation	near-death experience (NDE)
death	pathology
decay	capital punishment
destruction	putrefaction
depth	rebirth
entropy	rejuvenate
euthanasia	terminal
fear	transitory
hypnotic	transformation
limitation	thanatology
liberation	
morbid	

INTELLECTUAL IDEA

Psychologically, Thanatos is the concept known as "ego death"--the death of the old self which creates the conditions for rebirth. The phenomena of rebirth may mean a "born again" Christian, or the "twice-born" of philosophy which also implies the spiritual, yet non-religious renewal of one's purposiveness in life.

The major mystery of Masonic initiation includes the death-rebirth mystery. The initiate is symbolically murdered, sealed in a ritual tomb, later to arise as a resurrected soul and brother of the Order. Israel Regardie quotes from the ceremony for Minor Adept grade in **THE GOLDEN DAWN**.

"Buried with that Light in a mystical death, rising again in a mystical resurrection, cleansed and purified through him our Master, o brother of the Cross of the Rose. Like him, O Adepts of all ages, have ye toiled. Like him have ye suffered tribulation. Poverty, torture and death have ye passed through; they have been but the purification of the gold. In the alembic of thine heart through the athanor of affliction, seek thou the true stone of the wise."

The organic, regenerative process of "re-creational ego death" is common to mysticism, experiential psychology, and psychedelic journeys. Spiritual exploration, or soul travel, is shared by all three modes of immersion in the universal stream of consciousness. They are all variations on the theme of the consciousness journey, and echo our shamanic roots, and the mythemes of eternal return and hero/heroine. Participants reach a deep, integral level, and direct experience of Higher Power, often merging with the Creation or the Creator.

All these modes facilitate psychedelic consciousness, though any given experience may vary in duration and depth. Their prescribed frequency varies: meditators are advised to "*die daily*;" in psychotherapy once a month may be enough for regenerative therapy; psychedelic use varies from single experiences, to monthly, to annually. Despite different modes of induction, all these experiences reflect the illusory nature of time, space, and ego as reality constructs. The primary nature of consciousness is revealed.

The word psychedelic has its roots in the Greek psyche, soul, and delos, visible, evident. It is direct evidence of the soul, the pure manifestation of soul. Stace (1960) identifies nine qualities of the psychedelic experience as follows: 1) unity of all things; 2) transformation of space and time; 3) deeply felt positive mood; 4) sacredness; 5) objectivity and reality; 6) paradoxicality; 7) alleged ineffability; 8) transiency, and 9) persisting positive changes in subsequent behavior.

In the practice of mysticism there is identification with progressively more subtle "bodies" or vehicles of consciousness, culminating in a transform from a mental or causal body to a vehicle of pure Light. In experiential psychotherapy, transformation results from deepening within the flow of psychic imagery, progressively identifying with more primal forms, and ultimately with formlessness. In psychedelic experience, expansion of consciousness dissolves ego boundaries leading to morphological transformations and ecstatic communion.

In alchemy, one sought not only to find or create the Stone, but also to apply it, or use it creatively in the everyday world. Now, we might speak of integrating or actualizing the results of our transformations in daily life. Thus, self-actualization or self-realization implies the grounding of the spiritual fruits of inner exploration.

The liquid form of the Philosopher's Stone was known as the UNIVERSAL SOLVENT. According to the alchemists, the operation of solutio (liquification) has a twofold effect: it causes old forms to disappear and new regenerate forms to emerge. To a rigid consciousness, the primal ocean of the unconscious is experienced as chaotic, violent, irrational processes of generation and destruction.

Through "creative regression," the generic form of ego death, consciousness recycles, recursively bending back upon itself. The direction is a recapitulation of, a re-experiencing of sequences from earlier life, conception and birth experience, ancestral awareness, genetic and physiological recognitions, molecular and atomic perception, and quantum consciousness.

As consciousness explores and expands, ego dissolves. Pure consciousness, the fundamental luminosity, is the ground state of unborn form. The generic purpose of ego death is to

liberate our embodied being, precipitating communion with and re-patterning by the Whole. When all forms finally dissolve into unconditioned consciousness, the ground state of the Nature Mind is revealed as the mystic Void, the womb of creation.

When the constructed forms which hold personality together are voluntarily relinquished, consciousness "liquifies" and rapidly moves toward the unconditioned state. Though easy to say, it is sometimes difficult to achieve such liberation from the mental-conceptual activity of the nervous system. When we do, the quiescent nervous system is open and receptive to the conscious recognition of pure energy transforms with no interpretations.

The Universal Solvent dissolves problems, heals, allows life to flow in new, creative patterns. These new patterns embody the evolutionary dynamic. According to chaos theory, free-flowing energy is capable of self-organization. In consciousness this means that the obstructions to free flowing energy must first be dissolved. Through re-creational ego death, consciousness dissolves into healing communion with the whole of existence, renewing itself, emerging with a new creative potential.

The need for the periodic destruction of outmoded systems implies the value of recycling consciousness through death/rebirth experience. The universal solvent is not ordinary water, but "philosophical" water, the water of life, aqua permanens, aqua mercurialis. It is also the panacea, "*elixer vitae*," "tincture," or universal medicine. To periodically dip into these healing waters has a tonic, rejuvenating effect which pervades all aspects of being, like a soothing balm.

Solutio implies the liquification of consciousness through the dissolution of rigidities which inhibit free flow. They include roles, game patterns, defense strategies, rigid attitudes and beliefs, interpretations, complexes, "old" myths, and "frozen" energy surrounding traumas which manifests as fear and pain. Fossilized or ossified energies create obstructions to free flow, like boulders in a stream produce turbulence. Destructuring transformative processes can dissolve them, increasing the sense of flow. This "liquified" consciousness is psychedelic, a nonordinary expanded awareness which dissolves fixations and habits, and loosens cramped attitudes.

Mystic ecstasy, or the psychedelic state is mind-manifesting, consciousness expanding. It dissolves the identification of our consciousness with our histories, bodies, emotions, thoughts, and even beliefs. We are free to explore myriad forms, structures, and patterns, and/or become formless, resting in that unborn, unconditioned, unmodified healing state. We experience the essence of other forms of existence. The Oneness of all life and existence is directly experienced through a variety of transformations ranging from plant and animal identifications to planetary and universal consciousness.

Entering the turbulent flow of the stream of consciousness, we can ride its currents back to the Source, pure unconditioned cosmic consciousness. We can imbibe the life-giving qualities of this "water" through mind-expanding experiential contact with this deep consciousness. The transformative process is also reflected in our modern physical worldview as chaos theory, which we can view as a modern "myth," a new metaphor for the dynamics of consciousness. Chaos is ubiquitous in nature, pervading all dynamic

processes, perturbing them unpredictably. Chaos theory shows us that nature is continually unfolding new forms from the chaotic matrix of creation.

Our dynamic consciousness is an essentially chaotic process. Chaos tracks a time evolution with sensitive dependence on initial conditions. When we "return" experientially to the "initial conditions" of our existence, our whole being is holistically repatterned. Our historical limitations are superseded by the creative power of the eternal Now. We can allow chaos, as the universal solvent, to liquify consciousness and re-create ourselves. This presumes a therapeutic atmosphere, a "safe" set and setting, because each phase of the journey is an encounter with uncertainty.

The journey into deep consciousness appears inherently chaotic because the state of uncertainty pervades each moment of transition. Underlying moments of transience there are momentary blanks in awareness--little voids--flickering microstates which repattern each phase. Whether the experience is one of loss of personal boundaries or direct perception of stark, raw reality, or visionary dreams, there is no predicting where the chaotic orbit of consciousness will roam next.

To embrace chaos in our consciousness journeys, therefore means to cooperate and flow with the transformative process, opening ourselves to our deepest emergent potential. It's O.K. to let go periodically and temporarily become unstructured nothingness and open to holistic re-patterning. Chaos is self-organizing, self-iterating, and self-generating. It is an evolutionary force. The tendency of new forms emerging from chaos is toward a higher degree of adaptation, hence evolution (Kauffman, 1991). This "recycling" of consciousness leads to a self-referential vortex.

Chaotic systems revolve around nexus points, known as strange attractors, because of their unpredictable quality. Rather than being "point-like," they are more like vortices within vortices. The Philosopher's Stone is like a psychic lodestone (or vortex). It acts like an inner magnet, ordering the contents of our consciousness around it (through feedback loops) in chaotic, yet meaningful fashion.

The Philosopher's Stone may thus be seen as a "strange attractor" in the life of anyone engaged in the quest for transformation. It is an instinctual attraction toward processes which dissolve the ego and liquify consciousness, leading to transpersonal experience after symbolic death/rebirth. Freedom in the exploration of imagery comes from the creative capacity to experience loss.

Experientially, it appears as being channeled into the swirling mass of interacting symbols, an overwhelming vortex of pure information. We are sucked inexorably into interaction with the self-symbol, sucked into ourselves, like flotsam is pulled into a whirlpool. This is the vortex of the system, the vortex of self, where all levels cross. It overwhelms or tangles the mental processes, the self-imaging processes that maintain the illusion of stable personality and individual boundaries.

The classic text of re-creational surrender or sacrifice of self is *THE BARDO THODOL*, or *THE TIBETAN BOOK OF THE DEAD*. It is explicitly for the living who undertake the death-like regression into the unconscious, as well as the dying. Because of their orientation

toward consciousness journeys, *THE PSYCHEDELIC EXPERIENCE* and *THE AMERICAN BOOK OF THE DEAD* are useful translations or contemporizations of the transformational classic.

The realm of death is the twilight zone between consciousness and matter. Here psychoid phenomena manifest through the mingling of these modes. Here mind/matter duality ceases, creating enchantment, uncanny synchronicities, time warps, psychic experience, revelation of the mind of matter, the Nature Mind. The moment of ego death is heralded by certain symptoms of transition. Resistance by the mind to this creative dissolution brings about physical symptoms which range from shaking and a sense of increasing pressure and anxiety, to paradoxical flashes of hot and cold, to extreme dizziness and disorientation. As the classic psychedelic manual says, "*The hard, dry, brittle husks of your ego are washing out; Washing out to the endless sea of creation.*" (Leary et al, 1964).

Distressing or disturbing symptoms symbolize the violence of the passage of consciousness from form to formlessness. Images of the body disintegrating or being blown to atoms (fear of exploding = fear of expanding) are characteristic psychedelic experiences. Perhaps the very elements of our bodies "remember" their formation in the crucible of some supernova. There may be identification with merciless destruction, the Dance of Shiva, the raging elements of nature, a variety of forms of explosive discharge. Here are visions of fires, floods, raging storms, earthquakes, volcanoes, turbulent lakes of magma.

Consciousness "breaks up" into its elemental forms, manifesting as overwhelming imagery. This first phase of dissolution may be characterized by the futility of resistance, magnetic downward spirals, gravity wells, loss of morphological identity. E.J. Gold describes the second stage of the voyage as one of being overwhelmed by illusions produced by conditioning. Yet the primal element of pure forms breaks through and the voyager recognizes "*the basic component of consciousness which when combined produces what is called the element Water.*"

In consciousness journeys, chaos functions as the universal solvent, that which dissolves all patterns and forms including the rigid, outmoded aspects of the self. In the dream journey, one might enter a spinning vortex and become dismembered by centrifugal force, torn limb from limb. We remain in this state of dis-integration until we re-member our essential self, embodying the wounded healer.

That sense of disintegration comes as the ego gives up its "unified" linear perspective (bivalent) to the multiple consciousness or awareness (multi-valence) of the deep self. Fear makes it feel like fragmentation, but in truth there is nothing in that imagery that is not us. The death throes of the ego prepare it for rebirth, through communion with cosmic consciousness, a new incarnation of the spirit, death and resurrection. The nature of universal consciousness is oceanic. When the ego is in danger of "getting in over its head," it panics as if faced with drowning in the depths of this vast ocean of consciousness. It overwhelms the ego which cannot fathom this abyss.

This aspect of solutio brings mythic images of the dying god, of violent death and sacrifice, and of the isolation of the hero. It means nothing less than the sacrifice of the old self. The dissolution phase may mean myths of the triumph of darkness; myths of floods and the

return of chaos, of the defeat of the hero. In Gold's words, *"Death comes to all forms; everything eventually is broken up by dissolution, so there's no point clinging to yet another biological form out of desire, longing for stability, or from fear and weakness."*

The death-rebirth sequence typically opens a person to the transpersonal domain with its virtually infinite creativity. It reveals and unfolds our future potentials. In dreamhealing, chaotic consciousness is also creative consciousness. Terence McKenna reminds us that, *"Riverine metaphors are endlessly applicable. They represent the flowing of forces over landscapes, the pressure of chaos on the imagination to create creatively. . . The key is surrender and dissolution of boundaries, dissolution of the ego."*

When we immerse ourselves in that creative energy, we find healing on many levels of our being. It may feel tingly or effervescent, or like streaming energy. Direct experience of this level brings a true sense of oneness with all that exists, the seamless fabric of existence. It opens us to re-patterning by the whole--a re-construction or re-patterning of personality through holistic change at the most fundamental level.

Immersion in the oceanic experience of universal consciousness is a life-changing experience. It is experience of the web of life, the biological life flow, an ineffable current of bliss. Once we experience that larger world and self--the rhythmic pulse of all life--we are never the same again, so long as we remember. Communing with this energy, experiencing these states of consciousness, has been the practice of shamans since the dawn of man. Shamanic consciousness means the ability to enter and exit altered states at will. This power is connected to the liquid expression of life--the sap of life--the vegetable forms of the liquid Stone, and its identity with psychotropic plants. This notion reiterates that of the "greening of consciousness."

Spiritual reincarnation means bringing to life that which was formerly dead or unawakened, through connection with the original creative power. It is the theme of the Quest -- the greening of the Wasteland. The process of rebirth is the mythic enactment of "the one story" whose pattern is found in every narrative. Beneath the differences, the meaning -- having to do with the loss and recovery of identity -- does not change. This story of the loss and regaining of identity is the framework of most literature, from which comes the hero with a thousand faces. Some variation of the hero's adventures, death, disappearance, and marriage or resurrection are the focal points of most stories.

The original sense of identity (romance and comedy), its loss (tragedy and irony), and its recovery in the regenerate world of romance and comedy is mirrored in the mythic quest. Myths of the birth of the hero, revival and resurrection, creation and defeat of the powers of darkness and death are perennial themes. The descent and subsequent ascent, going deep into the consciousness journey and emerging transformed, is a form of death/rebirth, a powerful archetypal theme which is initiatory in character.

There is more than one form of rebirth. The notion emerges from the "belief system" level of psyche, which combines mythical, archetypal, and personal elements. Carl Jung detailed five specific types of rebirth with a variety of psychological aspects. In *ARCHETYPES OF THE COLLECTIVE UNCONSCIOUS*, he listed the forms of rebirth known to mankind as follows:

1. Metempsychosis. This means the transmigration of the soul from one body to another at death. The soul is believed to have the ability to transmigrate among plant, animal, or human forms. The change is not under the dominion of the will, but is the result of karma. The form is earned through one's deeds or misdeeds during life.

2. Reincarnation. This belief implies rebirth in human form, with some continuity or recall of personality. This is not only an eastern or Indian concept. At various times, it was embraced by the Hebrew and Greek cultures. It was expunged from *THE BIBLE* by Justinian and Theodora in Byzantine times. The soul is believed to migrate from human form to human form with some purposeful development.

3. Resurrection. Here the idea is the re-establishment of human existence after death, either through resurrection of the physical body, or in the glorified or "subtle body" of pure Light. It signifies a perpetual state of incorruptibility. It is a transformation of one's essence or essential being; a transport to a new dimension of existence.

4. Rebirth (renovatio). When we experience renewal or improvement through self-development, or even a vacation which revivifies us, we go through a kind of psychological rebirth. This rebirth takes place within the context of our individual life span. It may use magical, though not miraculous means of effecting change.

The functioning of the personality may be enhanced, and we might feel rejuvenated, healed, or otherwise strengthened. We can face the daily grind with renewed zeal and effectiveness. Rites of passage frequently involve a ceremonial form of rebirth, such as that of the adolescent into the adult world. When rebirth involves the transformation of the essence of our individuality, we are transmuted, or lifted from the human to the divine realm of being.

5. Indirect Rebirth. This implies witnessing or taking part in some transformative rite, such as the Catholic Mass, or the Eleusinian Mysteries. A modern example is psychotherapy which initiates the process of individuation, hastening the process of natural transformation. By focusing on dreams and self-awareness we can speed up nature's process of internal transformation. Our higher Self is revealed and we come to know our soul as a special "inner friend." Meditation is the spiritual means most frequently used to bring this change about, outside of the therapeutic setting.

All forms of rebirth, in the psychological sense, are experiences of the transcendence of life. Transcendence is a natural progression from the finite, mortal frame through space, time, and the personal ego into infinite, immortal life beyond. It gives us access to the experience of Cosmic Consciousness. The experience may be induced by ritual means, with or without direct participation. It may be a spontaneous, ecstatic revelation, or a subjective transformation only. It frequently brings an enlargement of the personality, bringing richness and depth to life.

Rebirth is experienced more easily, but not as deeply, through group participation or identification. In this case, the changes do not last, and one regresses to the former condition. Only spiritual exercises, or yoga, provide a clearcut means to the fullest, permanent experience of personal transformation, and access to the higher Self. To

experience this, one goes through total annihilation of the old self--self-surrender. The old ego dies to be revived as part of a greater whole.

Further reading on the concerns of Thanatos, death and rebirth include:

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SPIRITUAL MYTH

The God of Death haunts us all, consciously or subconsciously. Particularly the elderly are subject to a state which may be like a death in life--a paralysis from fear of what is to inevitably come. This event is a great moment, and some follow a natural urge to die at the right time, relinquishing heroic life-prolonging efforts.

Our culture makes valiant attempts to repress the awareness that life is based on death. Our overactive physical fitness binges are heroic attempts to deny that the telos, or goal, of psyche is death. This is not the case in all cultures. They prepare throughout life for death by putting dayworld notions to sleep. This radical shift in consciousness is expressed through metaphorical descriptors of death.

Mystical philosophies encourage the aspirant to "die daily" by withdrawing into meditation. They recommend anywhere from 20 minutes to 1/10 of the day (2 1/2 hours). The idea is to tithe a tenth of one's time, rather than money to experiential spiritual practice. This admonishment to "die daily" was also the advice of magician Aleister Crowley commenting on the Tarot Trump XIII, DEATH.

Spiritual Masters, or Adepts, speak of the "gates of death." They aid and teach the student to pass these gates and return to this plane at will. They help us solve the problem of what lies beyond. Coming and going at will through these gates is the process of dying while we live. This internal journey during meditation is routine to advanced students.

During meditation consciousness is withdrawn from the external world and concentrated inside at the pineal gland, or eye center. This is what happens at the moment of death also, according to these teachers. The difference is that an adept who meditates never loses consciousness when passing out of the body. He retains complete memory of his experiences which happened during absence from the body, in higher spiritual planes of existence.

Spiritual Masters, or Saints, describe four distinct classes or groups of people who meet with different sorts of experiences after physical death:

1. This group includes the bulk of mankind who have no living guide or spiritual teacher. They meet death unsupported, in great fear, helpless in the face of their own karma. They are judged immediately after death, sometimes quite severely. They return on the wheel of rebirth, born into the type of body which they created through their strongest desires in their past lives to fulfill their wishes.

2. This group have initiation from a living spiritual master, but didn't put much active emphasis on spiritual discipline or meditation (which balances or pays off karma). They indulged in many passions, and will be reborn to continue their training on the path. However, their teacher informs them when their time of death is near and accompanies them during the transition.

3. Faithful devotees of a spiritual guide have made good progress, but haven't yet gained liberation from the wheel of life. Since they are familiar with death through dying daily, they pass over without difficulty or distress; they understand and accept death calmly. They are also escorted by their Master, and rejoice at their homecoming. They need take a physical form no longer, and proceed to higher planes via their body of Light. Between initiation by a Master and liberation, there is a maximum of four human incarnations, instead of the eternal wheel of rebirth in various forms.

4. The final class consists only of Masters themselves. They leave the body when their work is done, simply putting it aside like soiled and worn clothing, and their souls merge back into God. Their duties and responsibilities fulfilled, they merged back into the Supreme One, who sends the great teachers here as embodiments of the Way.

Perhaps one of the oldest traditional accounts of the western perennial philosophy concerning death and immortality comes down to us in *The Hermetica*, the Lost Wisdom of the Pharaohs (Freke & Gandy, Tarcher, 1997). In the ancient texts, Hermes Trismegistus explores the nature of death and the fate of the soul which survives it.

From our human point of view, time is a destroying force, for we all age and die. But from the cosmic perspective, it is an endless cycle. We can participate in that eternal realm through the spiritual quest, by learning to accept the inevitable transitory nature of forms, including our own. Death is just the discarding of the worn-out body. According to ancient wisdom, pure souls are assigned to the heavenly realm while ignorant souls get recycled in the material realms. The Body of Light is recognized in East and West as the godlike form which transcends mortal death. According to *The Hermetica*:

**The end of becoming
is the beginning of destruction.
The end of destruction
is the beginning of becoming.
Everything on Earth must be destroyed,
for without destruction
nothing can be created.**

The new comes out of the old.
Every birth of living flesh,
like every growth of crop from seed,
will be followed by destruction.
But from decay comes renewal,
through the circling course
of the celestial gods,
and the power of Nature,
who has her being
in the Being of Atum.

For man, time is a destroyer,
but for the Cosmos
it is an ever-turning wheel.
These earthly forms
that come and go
are illusions.
How can something be real
which never stays the same?
But these transitory illusory things arise
from the underlying permanent reality.

Birth is not the beginning of life -
only of an individual awareness.
Change into another state is not death -
only the ending of this awareness.
Most people are ignorant of the truth,
and therefore afraid of death,
believing it to be the greatest of all evils.
But death is only the dissolution
of a worn-out body.
Our term of service as guardians of the world
is ended when we are freed
from the bonds of this mortal frame
and restored,
cleansed and purified,
to the primal condition of our highest nature.

After quitting the body,
Mind, which is divine by nature,
is freed from all containment,
Taking on a body of Light,
it ranges through all space -
leaving the soul to be judged and punished,
according to its deserts.
Souls do not all go to the same place.
Nor to different places at random.

**Rather, each is allocated
to a place that fits its nature.**

**When a soul leaves the body
it undergoes a trial and investigation
by the chief of the gods.
When he finds a soul to be honorable and pure,
he allows it to live in a region that corresponds to its characteristics.
But if he finds it stained
with incurable ignorance,
he hurls it down
to the storms and whirlwinds,
where it is eternally tossed
between sky and earth
on the billowing air.**

**Only a godd soul is spiritual and divine.
Having wronged no one
and come to know Atum,
such a soul has run the race of purity,
and becomes all Mind.
After it leaves its physical form,
it becomes a spirit in a body of Light,
so that it may serve Atum.**

**At the dissolution of the body,
first the physical form is transformed
and is no longer visible.
The vital spirit returns to the atmosphere.
The bodily senses go back to the universe,
and recombine in new ways
to do other work.
Then the soul mounts upwards
through the structures of the heavens.
In the first zone,
it is relieved of growth and decay.
In the second,
evil and cunning.
In the third,
lust and deceiving desire.
In the fourth,
domineering arrogance.
In the fifth,
unbalanced audacity and rashness.
In the sixth,
greed for wealth.**

**In the seventh,
deceit and falsehood.**

**Having been stripped
of all that was put upon it
by the structures of the heavens,
the soul now possesses
its own proper power
and may ascend
to the eighth sphere -
rejoicing with all those that welcome it,
and singing psalms to the Father.
The gods that dwell above the eighth sphere
sing praises with a voice that is theirs alone,
call each soul to surrender to the gods,
and so each one becomes itself a god
by entering communion with Atum.
This is Primal Goodness.
This is the consummation
of True Knowledge.
Having been initiated into immortality,
a human soul,
now transformed into a god,
joins the gods who dance and sing
in celebration
of the glorious victory of the soul.**

CULTURAL COUNTERPARTS

**PLUTO, MORS (Roman)
TYPHON-APEP (Egyptian)
SHIVA, YAMA, KALI (Hindu)
NERGAL (Babylonian)
MICTLANTECHUATL (Aztec)**

CONTEMPORARY EXAMPLE

**Coroners, such as L.A. County's Thomas Niguichi, or the fictional pathologist, Quincy.
Hitler for instigating W.W.II and the Nazi death camps.**

Jack Kavorkian, Dr. Death, who created suicide machines to aid the terminally ill.

KEYWORDS

**Mortification, burial rites, cremation, miserable, pestilence, portal, recycle, resuscitate,
wrathful, skull, suffering, rotting, stench, decapitation, remission, recycle, transformation,
apocalypse, stiffness, inflexibility, destruction, demolition, reclusiveness, stillness, final rest,
mystical death, confusion, skeleton, exposure, reassembling, devastation, self-denial,**

delusion, sorrow, submission, disintegration, utter emptiness, disassociation, withdrawal, elimination, perpetuity, limitations, detachment.

DIALOGUE WITH THANATOS

Greet the Reaper who is dressed in his black robe, holding the fatal sword in his hand, or in his gentler form as a winged spirit. Perhaps he comes in tandem with his brother Hypnos, and the son of Hypnos, Morpheus (god of dreams).

Enter that dream world consciousness--that twilight underworld realm--and see what happens. It requires letting go, letting go of all outworn forms, all preconceived notions. Move with reverence and awe into the Valley of the Shadow of Death--for it is truly and always with us, our closest companion who will never abandon us.

THANATOS IN YOUR LIFE

- 1. Have you ever had a close-call or brush with death, or perhaps a full near-death experience?**
- 2. What are your views on abortion, capital punishment, and mercy killing?**
- 3. Have you ever been compulsively or impulsively self-destructive?**
- 4. If you could imagine death sitting on your shoulder as a consultant, how would you change your priorities?**
- 5. Have you ever been present at the moment of death of anyone? What did you feel?**
- 6. Have you ever felt reborn, resurrected, or rejuvenated with new life and meaning? What was your purpose at this time in your life?**
- 7. If you have experienced ego-death through natural transformation or with mind-altering drugs like L.S.D. describe the visceral sensations associated with this process. Where did you feel it? How were your emotions and mind responding?**
- 8. Have you ever had a formal initiation, such as the symbolic death and rebirth of baptism, or in a fraternal or service group?**
- 9. What are your beliefs about the prospects of an afterlife?**
- 10. Can you remember any images of the *mortificatio* in your dream life?**
- 11. What do you need to let go of? What is your basic support system through this transition? What is being transformed? What new growth is now possible?**
- 12. What are you feeling so deeply and intensely about?**

NEXT: ARTEMIS & APOLLO

Return to Pantheon Homepage

Return to Synergetic Qabala Homepage

Go to Iona Miller Collected Works

E-Mail

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DEATH: THE SKELETON KEY OF CONSCIOUSNESS STUDIES?

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Part I: Consciousness and Death

The role of consciousness in contemporary scientific thought is similar to the role of death in everyday emotional life. It is usually ignored or denied outright, frequently obsessed over, and is sometimes the inspiration for uncharacteristic breaches of common sense.

It is time to state the obvious. The problem of consciousness is deeply interwoven with the problem of death. And yet death is rarely mentioned in relation to consciousness studies. Consciousness is the thing of consequence that dies. Surely this explains a great deal of why there is such an energetic conversation about consciousness, and why passions are so often raised concerning a subject whose basic nature is so elusive and disputed.

The spectrum of attitudes in consciousness studies is strikingly similar to the variety of coping mechanisms for the existence of death.[1] There are those who imagine they already somehow possess more knowledge about it than they have means to achieve. There are those who believe nothing can ever be said about it. And then there are those who seem to wish to deny its existence. It is these latter who interest me the most.

Life would certainly be simpler without consciousness. If consciousness did not exist, much of philosophy would not exist. Daniel Dennett, a philosopher who claims not to be conscious, has already announced the end of ontology, and there have been numerous predictions from like minds that other branches of philosophy are mere stand-ins awaiting more developed science.

So why won't consciousness just go away? What gives consciousness legs is the existence of subjective experience, something persistently elusive and of unclear consequence. Interminable constructions of thought and image have been created by countless generations of people in response to what is nothing more than a perfect point, a thing with no quality and no content. It is a tale out of Borges. A shelf of mathematics books devoted to one numeral alone. A vast museum that displays only one pixel.

With a sufficiently advanced neurotechnology, it should presumably be possible to reliably and repeatably construct mental phenomena, such as qualia, in detail by setting values in neurons. This would be an experience confirmable by anyone who plays with the gadgets that accomplish it. `Brainoramas' would no doubt be the new consumer electronics blockbusters; pure experience machines. These machines would not claim to become conscious themselves, but rather would allow human users a precise technological route to controlling the detailed content of their own subjective experience.

A brainorama would consist of three parts. One would be a hat that contains sensors capable of reading and writing the states of each neuron in your brain at a rapid rate. There would also be a display that shows you what's going on in your brain, and allows you to edit it. Connecting these would be a computer capable of recognizing and synthesizing neural patterns. I won't attempt to guess at what future century might be capable of producing this device.

A lazy customer could be given an adventurous experience or deep wisdom, according to the current fashion. One can predict that the use of these machines might follow the pattern set earlier by psychedelic drugs and music synthesizers. Synthetic experiences that were initially fresh and extreme quickly become banal, as intensity is maximized in all directions until it becomes meaningless. Following that will be the realization that 'there is no free lunch', that the construction of creativity in thought, beauty in creation, or depth in character requires as much or more work in the purely informational world of brainorama as it does in real life.

In the end, however, the nature of these exotic new objectively controlled subjective experiences will still remain a nagging mystery. Why must experience be there at all? How can one prove if it is or isn't there? Nothing will have changed in these questions, except that we'll be able to observe the questions themselves as brain phenomena directly for the first time using brainoramas.

Imagine watching your thoughts on the philosophy of consciousness go by on the screen [2] of a brainorama. Suppose you start to think that maybe consciousness is everywhere, and that is why you can't capture it — and at that moment you see a familiar cloudy squiggle in your cortex, above your ear, similar to the last time you thought the same thing. The pattern recognizer in the brainorama computer catches it too, and a 'Chalmers' alert starts blinking. Instead of thinking from the inside, you decide to use the stylus to sketch some narrower loops on your Chalmers squiggle and feel what the thoughts are like. Suddenly you don't find consciousness credible anymore, and indeed a 'Dennett' alert is flashing on the screen. But thoughts have a way of springing back to their original form, like memory metals. Other parts of your cortex are automatically alerted into action to repair the damage and soon you see your familiar thought squiggles appear on the screen, just as you find yourself thinking, 'But wait a second, consciousness IS there!'[3] I suspect that trying to track down consciousness [4] with a brainorama will feel like trying to find the butterfly whose wing flutterings are to be the cause of a hurricane on the other side of the world.

As you browse through your brain, you are able to see the full extent of your memory. It is as if, after living your whole life inside a great canyon of unknown dimensions, you are able to climb to a lookout point on the rim for the first time. For a moment you are impressed with the vastness of what you see. But soon an overwhelming sense of the finitude of your own brain appears as a particularly murky and awkward squiggle. A blinker signals that you are beginning to think about death.

The nature of consciousness should reasonably be expected to explain the nature of death. For example, if Penrose is right, then consciousness simply ceases when the microtubules dissipate. If Dennett is right, consciousness wasn't there in the first place, so death isn't such a big deal. The mysteries of death and consciousness are not the same, though. Death

cannot tell us as much about consciousness as consciousness can tell us about death. If we knew that consciousness did not survive death, for example, we still wouldn't know what consciousness was before death.

Consciousness has historically been linked with the idea of the soul, primarily in order to substantiate an afterlife. This was not exclusively among excitable religious types. By Plato's account, Socrates' precise mind found subjective experience axiomatic enough to suggest that it must reside in a realm all of its own, which must be revealed in death. Among the religious, of course, consciousness has generally served as an intuitive confirmation of elaborate articulated fantasies of the hereafter, especially in the West.[5] The difference between the religious and the secular has often been no more than the degree of elaboration and specificity in these fantasies.

Alas, the fear of death has been exploited to create empires. For this reason, scientists and political liberalizers have often been allied to combat dogmatic religious authority. The twentieth century saw the rise to prominence of a culture that was in large part a reaction against the arbitrary and sometimes exploitative nature of death-denial fantasies.

In the late twentieth century a bizarre and inverted form of death-denial has been gaining ground. It is the ironic grandchild of an earlier generation of rational thought that sought to quell all such sentimentality. In this new fantasy, technology will conquer death. In the literature of cryonics and nanotechnology one frequently comes across arguments that we are already within shooting distance of the goal. Nanotechnology might be used to create a supercomputer that will quickly figure out how to make nanomachines that can repair the human body and make old age an anachronism. Or cryonics will preserve our bodies until a happy time in the future when they are expected to be thawed by gentle enthusiasts for antiquity. Or, perhaps most tellingly, the contents of our brains will be read into durable computers, so that our minds will continue after our bodies cease to function.

Consciousness is at best a wildcard, and at worst an outright affront to these fantasies. Subjective experience is undeniably present, for those of us who have it, anyway. (I've proposed elsewhere that some philosophers just don't have it. See Lanier, 1995.) It is the only thing that would be just as real if it were somehow shown to be an illusion or a mistake; if it is there in any way whatsoever, it is fully there, undeposable, the most primary thing. And yet it has no definitive measurable effect on anything else. The coincidence of these two qualities makes it awkward. It is utterly unclear how consciousness 'binds' to the empirical universe.

There is absolutely no way to know what the subjective experience of having one's brain state transferred into a computer, leaving the body to be disposed of, or even of being frozen and thawed, would be. Even if these things were tried, those who hadn't themselves had the experience would only be able to rely on the reportage of the purported survivors who did, and the readouts of their brainoramas. The cold truth is that you have to die to test these ideas.[6] The living are unable to know if technological reductions of consciousness are valid.

We have come to the fundamental problem for the new death-denialists: if consciousness exists, then technological forms of avoiding death are absolutely as uncertain as old

fashioned death itself. The 'hard problem' kind of consciousness is the enemy of the new death-denial fantasy, and there is no stronger source of passion than the defence of such a fantasy. So consciousness is made to not exist. Here is the engine under the hood of consciousness denial. A literature already exists of the new death-denialists. The theorists are Minsky, Dennett, Hofstadter. The authors of new romantic liturgies are Tipler, Moravec and Drexler.

The tragedy of traditional death-denial based on a religious fantasy is that the fantasy must have specific, yet ultimately arbitrary, content. Therefore it is frequently the case that people find themselves holding mutually exclusive death-denial fantasies. This is why traditional religion is divisive. Christianity and Islam cannot both be true in their most literal sense. This provides a potential ethical advantage for the new death-denialists. If people can agree on one simple tenet, that subjective experience, the pea, does not exist, then they can share in the objective world of empirical confirmation on all the other points that matter. They can agree, for instance, on whether a brain has survived its cryo-, nano-, or cyber-transition into immortality.[7]

Nonetheless, the new and old styles of death-denial are even more in disagreement with each other than any old-styled pair have ever managed to be. The chasm between death-denial fantasies provides a worthwhile approach for understanding some of the most frustrating current events. Is it a coincidence that religious fundamentalism is experiencing a resurgence at just the time that science is starting to touch some of the most intimate aspects of human identity? Today's social conflicts are more likely to be about technologies that challenge our definition of death, such as abortion, than about the distribution of wealth.

Footnotes

1 Certainly the fear of death has been one of the greatest driving forces in the history of thought and in the formation of the character of civilization, and yet it is under-acknowledged. The great book on the subject, *The Denial of Death*, by Ernest Becker (1973), deserves a reconsideration. Even as the psychoanalytic tradition seems to be on the wane, this book holds up remarkably well.

2 The screen is what we are most familiar with in 1997, but make no mistake, any upmarket brainorama will actually have a virtual reality interface, so that you find yourself inside a three dimensional representation of your own brain.

3 You might wonder how you avoid becoming lost in an infinite regress of watching your thoughts of watching your thoughts. That is simple. The brainorama computer is programmed to filter out this kind of resonant feedback.

4 Just to be clear, I am talking about the 'hard problem' kind of consciousness. The 'easier' kind of consciousness (that aestheticians can make go away) is undoubtedly localizable, since it is an empirical phenomenon, and it would seem to be primarily associated with the core areas of the brain rather than with the cortex.

5 Christianity, a post-platonic religion, was primarily founded not on the exceptional emanations of burning bushes, demons, or other extraordinary objects, but on the reports of people of apparently ordinary form, Jesus and Lazarus, who could confirm the continuity of consciousness after death. (While reports of Jesus' life do contain some other supernatural events, like walking on water, these are surely not as vital to the religion.) In Christianity the physical world became more ordinary and the hereafter more baroque, especially as the religion developed over the centuries.

6 Note that you do NOT have to die to test a Brainorama, so long as you use it gingerly.

7 This only provides a potential unity in the understanding of facts — it certainly doesn't suggest any unity of motivation. In fact, the cliché would seem to be that consciousness-free people face a crisis of meaning and lack grounds for motivation in any shared direction.

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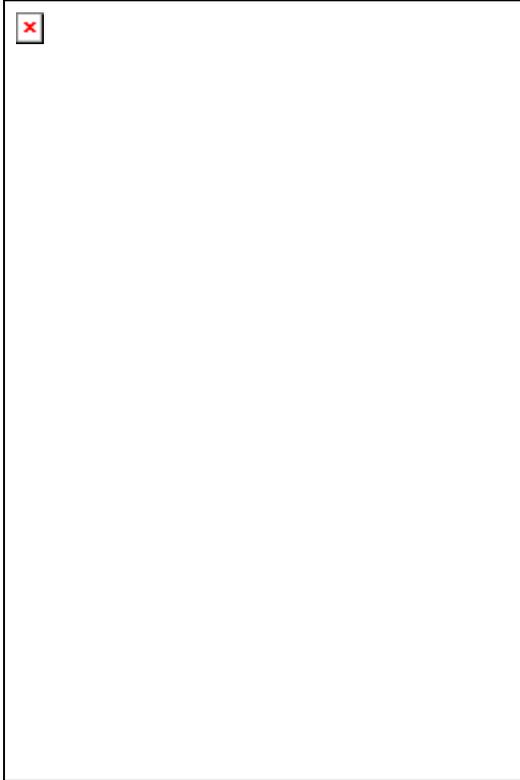
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*Artemis/Apollo, moon and sun team;
They roam o'er the heavens, through forest and stream.*

CHAPTER XIV: ART OR TEMPERANCE

ARTEMIS & APOLLO



Artemis is the Moon and Apollo is the Sun; this Trump represents their conjunction or unity. An image of that conjunction is the eclipse. Artemis, as the Amazon (or martial maid) is an adolescent stage of the High Priestess (Trump II). She is the patroness of youth. As a virgin, Artemis suggests that capacity of the psyche to serve as an intact vessel of containment. The High Priestess has incorporated the Solar aspect within herself.

This is not so with Artemis, as the Amazon. Her solar twin, Apollo, represents her spiritual animus personified. It is a tandem relationship where they are twins of the same mother. Because she represents a less-mature aspect of herself, her solar component is projected as Apollo.

Apollo wants no competitors. As an example of this, consider the introspective, but dedicated young artist or musician, whose love affairs pale in comparison with the consistency and inspiration of her creative spirit. Her love affair is with her art; she loves the inspiration. She is an "arty-ms."

Artemis is typically in motion, darting and flitting. However, she always seems to be moving away most of the time, gaining distance from things. Hunting is an aspect of her supervision over the life and death of wild animals, symbolizing our untransformed instincts. In modern life she may hunt with a camera, or hunt and gather other things, such as art collections or research. Her sexual drive is quite natural, but Artemis as Amazon lacks the cultural refinements of a sophisticated lover.

These qualities of Artemis, the deep interiority, pristine freshness, imaginal containment, and freedom from external containment are similar to puer psychology. Both are a movement inward, away from pragmatism and heroic acts, toward imagination. She rules the woman's mysteries ("Ms.teries").

For these and other reasons, Artemis/Apollo represents the Trump XIV, Art. Art is a process, moving from the Lunar to Solar aspects on the Middle Pillar, from unconscious, occult or hidden forms toward full conscious awareness. This represents a transmutation of opposites, forming an androgynous figure. Artemis/Apollo was originally known as Temperance because when they merge with consciousness, they temper, combine and harmonize the psychic and material natures of the Moon and the Sun.

This classic twin-set joins wildness and terror on the borderline of equilibrium. Artemis experiences phenomena androgynously while retaining her femininity. She confers full-fledged transformations through expanding consciousness, not through a sexual role-reversal. In the blending of opposites, Artemis presents the anima (or diffuse consciousness) and Apollo represents the animus (or logical processes).

In Greek mythology, Artemis is the daughter of Leto and Zeus, and twin sister of Apollo. Artemis is the goddess of the wilderness, the hunt and wild animals, and fertility (she became a goddess of fertility and childbirth mainly in cities). She was often depicted with the crescent of the moon above her forehead and was sometimes identified with Selene (goddess of the moon). Artemis was one of the Olympians and a virgin goddess. Her main vocation was to roam mountain forests and uncultivated land with her nymphs in attendance hunting for lions, panthers, hinds and stags. Contradictory to the later, she

helped in protecting and seeing to their well-being, also their safety and reproduction. She was armed with a bow and arrows which were made by Hephaestus and the Cyclopes.

In one legend, Artemis was born one day before her brother Apollo. Her mother gave birth to her on the island of Ortygia, then, almost immediately after her birth, she helped her mother to cross the straits over to Delos, where she then delivered Apollo. This was the beginning of her role as guardian of young children and patron of women in childbirth. Being a goddess of contradictions, she was the protectress of women in labor, but it was said that the arrows of Artemis brought them sudden death while giving birth. As was her brother, Apollo, Artemis was a divinity of healing, but also brought and spread diseases such as leprosy, rabies and even gout.

The fact that these archetypal dynamics are linked as twin-forces suggests the primal effects of both sun and moon on the motions of earth and the e-motions of human beings. It is a well-documented phenomenon that solar flares or sunspots effect or correlate with disruptions in human behavior. The effect of moon, and Full Moon in particular, is reflected in the term *lunacy*. This effect is noted monthly by those in the medical, public safety and mental health fields. The Twins may be considered an archetypal basis of psi phenomena or the remote sharing of information among two or more individuals. It is a well-known anomaly that twins often perceive what is happening to their identical sibling even when they are seemingly separated. The effects of geomagnetics, mediated by the Schumann's resonances, influenced by sun and moon, are covered here in relation to psi experiences.

PHYSICAL FORM:

ART (Trump XIV) depicts the alchemical blending of fire and water. From a biological perspective, the active hot principle of sulphur is attributed to the left hemisphere of the brain. The more passive, lunar principle of mercury is attributed to the right hemisphere.

There are two nitrogen-containing organic compounds in the brain called amines. These two compounds have been proposed as chemical mediators of the sympathetic and parasympathetic systems of arousal. Noradrenalin corresponds to solar Apollo, and works through the sympathetic system. From this perspective, Apollo facilitates adaption to external reality. Noradrenalin produces an excited, anxious state which culminates in ecstasy.

Serotonin corresponds with Artemis and the right hemisphere of the brain. Working through the parasympathetic system it creates a relaxed condition, like meditation. Artemis/Apollo represents serotonin and noradrenalin being poured simultaneously into the "cauldron", located in the hypothalamus or third Ventricle of the brain. It represents a pain-pleasure balance.

Artemis/Apollo represents the Consummation of the Royal Marriage. In ancient times, the brother-sister union was generally reserved for royal couples, and may be the root of this metaphor. When this chemical wedding occurs in our body, it produces the ability to remain active (noradrenergic) while inactive (serotonergic). This is using action to attain non-action, as in Buddhist meditation. This paradoxical state symbolizes the twin divinities.

We experience brother/sister relations at the emotional level with amazonian women. Since they share similar activities and challenges, artistic or androgynous men and women understand one another. This type of woman may marry and even have children, but they are never dependent on a man for their fulfillment, like a maternal or clinging-vine type person. They make terrific colleagues.

The Artemis woman is not interested in too much personal intimacy. She can seem aloof, cold, efficient, and even self-sufficient. She has little patience for weakness and sentimentality, and will be repugnant to the regressive side of man, with his anima possessions. She has no tolerance for moodiness.

Artemis has a furtive and moonlit anxiety about sexual matters, but she is not prudish. Her desire for personal privacy is territorial, not stemming from a fear of invasion. The homosexual tone associated with hair-grooming and cosmetic weightlifting is also a part of Artemis/Apollo's correspondences.

With this androgynous nature, Artemis/Apollo woman feels confident that she can succeed in any chosen field (man's or woman's), provided she is proficient in her craft (ART). This type dominates the equestrian field.

Specific occupations associated with Artemis/Apollo are:

CONTEMPORARY EXAMPLE: Gianni and Donatella Versace

*Hades-Dionysus, intoxication's high!
Beware of his pitfalls or you, too, shall die.*

CHAPTER XX: JUDGEMENT/AEON

x	HADES - DIONYSUS

Contrary to popular opinion Dionysus is not merely the god of revelry, indulgence, erotic compulsion and intoxication, but of ecstatic rapture. We see this rapture, or rising up, depicted in the tarot trump Judgement or The Aeon. Dionysus, rooted in the earth and ecstasy, is the prototype of shamanic descent and the dying and resurrecting godmen.

This vegetation god also presides over or underlies prophecy, tragedy, ecstasy, and the violation of limits. He is the irrational power that allows us to explore our potential for emotional and behavioral extremes. The Irrational forces us to suspend logic, washes out the firm footing from beneath us, floods us with emotion, rips away false surety, claims us utterly, shakes us to the core, and sweeps us into heavenly heights and underworld depths inexorably full of the sense of mystery, the Unknown.

The vine and ivy were sacred to this god; his sacrifices consisted of goats and pigs. The title "*Dithyrambos*," means "twice born." Stories of his birth have Zeus either swallowing his embryo or heart or sewing his embryo into his thigh for gestation. As Zeus' son he shares his will to power and creative drive. His childhood was spent in innocence and happiness among the nymphs, satyrs, herdsmen, and vine-tenders of Nysa. His Artemisian nurses are linked to the moon and lunar consciousness of the dark. Dionysus was born of fire and nursed by rain, transformed by the hard burning heat that ripens the grapes and the water that keeps the plant alive. Dionysus is the god of all life-giving fluids.

Dionysus 'died' with the coming of the cold. He experienced a terrible death; he was driven mad, torn to pieces, in some stories by the Titans, in others by Hera's order. He is followed by his female devotees, the Maenads who are often seen in an ecstatic frenzy. He invented the vine from which wine is made -- he rules wine, drama, and revelry. He had power over life, death, and resurrection. He also had the formidable power of creating madness. He was a God who could be found often in darkness, but sometimes in light as well. Mardi Gras, Spring Break, and the Playboy lifestyle with its orgiastic rites, owes its soul and phallic spirit to Hades-Dionysus as any follower of Dionysus can hope to be seized by the god in an ecstatic frenzy.

Heraclitus says, 'Hades and Dionysus, for whom they go mad and rage, are one and the same.' Dionysus was worshiped in Hellenistic times (after 332 BC) from Italy to Greece and into Egypt and the Middle East. The Greek Dionysus is mentioned in Linear B tablets from roughly 1,200 BC. Herodotus describes initiation into the mysteries of Dionysus in the fifth century BC. [Herodotus Histories book 4, 78 80], Euripides' play about him, *The Bacchae*, was first performed about 400 BC.

The Maenads, (Bacchantes) were Dionysus' female votaries who accompanied him when he traveled. Frenzied with wine they rushed through woods and over mountains uttering sharp cries, waving pine-cone-tipped wands (thyrsi). They danced and sang exultant songs, wearing fawn-skins over their robes. Nothing could stop them. They would tear to pieces the wild creatures they met and devour the bloody shreds of flesh.

The worship of Dionysus was centered in divergent ideas; of freedom and joy and of savage brutality. The reason that Dionysus was so different at one time from another was because of the double nature of wine, his symbol. He was man's benefactor and he was man's

destroyer, man's blessing sometimes his ruin. The double-nature is also reflected in his sexual ambiguity.

Due to the diversity of influences from the other gods, he easily gets “taken out of context.” Which explains why he habitually gets torn to pieces—as Jesus is continually crucified—only to have him disappear, and reappear with a new advent (rebirth). Of all the gods, Dionysus is least understood. He’s therefore best portrayed as god of wine, which gets perverted when he becomes the Roman's Bacchus, the god of drunkenness, hence the god of excess. Dionysus abhorred getting drunk.

As humans we tend to go to extremes, and we obsessively lose sight of the “overall picture.” And in our endeavors, be it work, sports, religion, drugs—good or bad, etc.—we tend to get fixated or drunk on what we’re doing, with compulsive fanaticism. Anything which like wine can lead to pleasure but also disorientation, unrestrained action, and dire consequences can be seen in this way. We call this neurosis or, addictive behavior, and it gives rise to the term “inflation,” being full of hot air. In its extremes physical or emotional intoxication is an escapist journey to oblivion.

Robert A. Johnson’s book, *Ecstasy, Understanding the Psychology of Joy*, is written specifically about Dionysus and the “ecstatic experience,” and its loss in our western culture. Another excellent book is *Craving for Ecstasy*, (Milkman and Sunderwirth, 1987). Stan and Christina Grof write on addiction as a spiritual emergency (*Stormy Search for the Self*, 1990) and divine madness, spiritual emergence and renewal (*Spiritual Emergency: When Personal Transformation Becomes a Crisis*, 1989).

Himself a mystery god, and god of vegetation, Dionysus was also initiated into the mysteries of Demeter, the goddess of the grain: the Eleusinian mysteries or mysteries of the dead, involving the afterlife. Though somewhat effeminate, Dionysus is essentially the masculine counterpart of Persephone. In earlier accounts, Dionysus was the son of Persephone, the daughter of Demeter, or even the son of Demeter (as Iacchus). As mother and daughter the two were inseparable, suggesting a closer affinity to Demeter, hence the god of bread and wine, as is Jesus in Matthew 26:26-30 Mark 14:22-26. The mysteries of Demeter also involved the “secrets of the couch.”

Karl Kerényi, in his book on Eleusis, clearly shows that many ancients revealed what the secret was, beginning with Euripedes in some of his plays. The secret was that Dionysus and Hades are the same. This meant that Dionysus is also the Lord of the Dead, the Lord of the Underworld. In modern psychological terms, it is the difference between relating to this dynamic through its pathological aspect (addiction; drunkenness and their relation to a hellish underworld of criminality, violence, greed and death) or its transpersonal aspect (ecstasy, bliss, rapture, transcendence or elevation to 'Olympus,' realm of the gods).

The sufferings which the god was supposed to endure in winter led him to be associated with Demeter in the mysteries of Eleusis. His spring festival, the Great Dionysia, was open to all the world. The procession of followers carried a replica of the god and replicas of his phallus. The ceremony became more elaborate each year. Drama developed out of his worship.

Theater became the scene of splendid dramatic performances. The poets were the prophets and priests. Actors and singers took part in the sacred performances. All ordinary business was stopped, no one could be put into prison, and spectators along with the writers and the performers, were engaged in an act of worship whose purpose was to purify the emotions. The greatest poetry in Greece was written in tragic plays and was never equaled except by Shakespeare. Comedies were produced but tragedies far outnumbered them.

Like Persephone Dionysus died with the coming of the cold. Unlike her, his death was terrible: he was torn to pieces, in some stories by the Titans, in others by Hera's orders. He was always brought back to life. He presented death and resurrection which first centered in Persephone, but she held power in death as queen of the Underworld. Dionysus was never thought of as a power in the kingdom of the dead. He only rescued his mother from it.

Dionysus is intrinsic to the Eleusinian Mysteries of healing and transformation. Dionysus is linked to the Maenads and other female companions, as Krishna is to the Gopis. Dionysus was Zeus's youngest immortal son. In a group of the tales concerning him, he was born of a mortal mother. In other stories Dionysus was held to be a son of Persephone, and received the surname of Chthonios, "the subterranean," another link to the world of the dead.

In this form, Dionysus may have literally been a psychedelic which springs up from beneath the earth, either the magic mushroom or ergot (growing on grain stored underground), used in the secret mystical brew, the *kykeon*. This potent magical brew produced visions and an experience of metaphorical death and rebirth, emulating the dying and resurrecting god of the grain. Psychedelic experience often contains imagery of dismemberment in the early stages of ego-death, and often a passage through the underworld. The afterglow of the experiential journey is perceived as a renewal or rebirth.

One of the names given to the child's father is that of Hades. When Persephone had eaten the pomegranate seed she left her husband only reluctantly or, according to another tale, she never left him at all. She was honored and sacrosanct queen of the Realm of the Dead. This represents, however, only one aspect of what was, in fact, a great god. But we know that Persephone's husband was also called Zeus Katachthonios, "subterranean Zeus", and that it was Zeus who seduced his daughter. As Katachthonios, Zeus was the father of the subterranean Dionysus, and in the same quality he was also called Zagreus, "the great hunter". This was also one of the names of his son. Dionysus had many & various forms. Even though he did not actually appear as a mask - carried by men or hung up to be worshipped - he had a peculiar, fascinating mask-face.

Ancient portrayals show him holding in his hand the kantharos, a wine-jar with large handles, and occupying the place where one would expect to see Hades. On a vase by the archaic master Xenokles we see, on one side, Zeus, Poseidon and Hades, each with his emblems of power, the last has his head turned back to front and, on the other side, the subterranean Dionysus welcoming Persephone, who is obviously being sent to him by Hermes and her mother. Dionysus is striding forward to meet his bride: a bearded, dark bridegroom, with the kantharos in his hand, against a background of grapes. Or is this the scene of parting? If so, one sees that the goddess will return to this spouse.

In most tales, however, Dionysos appears as a tender boy, the son of his mother. She, indeed, immediately disappears and is soon replaced by loving nurses. We can recognize the two aspects that Zeus also displayed: on the one hand, of the father and husband, and on the other, of the son of the divine child. Throughout mythology other beings besides Zeus and Dionysos had this double aspect. But no other god so much appeared to be a second Zeus as Dionysos did: a Zeus of women, admittedly, whereas the Olympian was much more a Zeus of men. The more characteristic animals of these two gods were the serpent and the bull, both of which appeared in the Mediterranean earlier than the horse.

The tale that Zeus mated with Persephone's mother, and later with Persephone herself, his own daughter in the form of a serpent, has been preserved only in an Orphic story, and only in a few fragments. The place of these marriages, and the births that resulted from them, was a cave. The goddess by whom Zeus begat Persphone was originally his mother Rhea. Demeter appears as a third party interposed between the mother and daughter, both of whom appeared earlier in Greece than she did. She is described as Rhea's alter ego, yet she is also identified with Persephone. Zeus begat Dionysos, so it is expressly stated, by Demeter or by Persephone.

After his descent to Hades' underworld to retrieve his lost love Eurydice, Orpheus became a priest of Dionysus, suffering the same death as the god. His journey to the underworld associated him with occult knowledge. The Orphic cult was a mystery worship that offered spiritual guidance along a path of self-purification and preparation of the soul for life after death. Orphic teachings sought to awaken the divine spark of potential. Initiates consumed a meal of bread and wine (the body and blood of Dionysus), expecting to be eternally united with the god in the next world. Orphism espoused reincarnation, and viewed Hades as the place of renewal and rebirth.

His singing and lyre-playing, rivet any form of wildness, even the forces of the Netherworld. Eurydice symbolizes the hero's soul and is a part of his completed existence. The passion and the hero's absolute attachment to her, keep her prisoner in the levels of desire without an escape at upper levels where she belongs. Finally through the snake bite in her leg, she manages to escape from earth and walks across to the Netherworld.

Orpheus, descends to Hades, inconsolable, in order to search for the part of his self that he considers to be essential for his integration inside his incarnate nature. He carries the lyre (his art), the Apollonian light of the soul in the darkness of his personal unconscious, enchanting even Persephone, giver of life and death. Nevertheless, his conscious is pointed upwards, to the world where he belongs. And although Persephone has forbidden it, Orpheus breaks his promise and because of his adulterated desire, looks at Eurydice and points his conscious to the Kingdoms of the unconscious. His first try was a failure. The Gates are closed now. The chance comes only once. If you don't take advantage of it, it disappears. Orpheus retires in a cave (7 months) and tries to reorientate his self in connection to the values of life.

His passion to retrieve Eurydice is replaced by his passion to work. He establishes the Orphical Sacraments and teaches people about the cause of the things (the cause of existence lies in the sound). He goes up to the high mountain of initiation (Paggeon) in order to praise Apollo. But by turning his consciousness exclusively towards Eurydice, he ignores

the expelled tensions. That which he should have brought in balance inside him, tears him totally apart by identifying him with Zagreas.

This supreme sacrifice gives him immortality. The hero who takes the responsibility of serving the world, ought to shatter his consciousness and recompose it into a new universal realization of the world. Orpheus symbolizes the supreme balance of the soul between its Apollonian and Dionysian sight. He is a spiritual hero. He is the hard journey of the spirit and its descent into the material. His mistakes though, are balanced by his sacrifice and contribution. And spirit's shining lives in the Orphical Sacraments, in the magic of sound, in our need to sing and praise the divine existence within our self.

The Orphic story also named the toys of the new ruler of the world. These toys became symbols of those rites of initiation which were first undergone by the divine boy, the first Dionysus. Dice, ball, top, golden apples, bull-roarer and wool played a part in the ceremony of initiation or in the tale itself. This tale is now told only in the version adopted by the followers of Orpheus, who introduced the Titans into the story. There is, however, another version according to which it was not necessarily the Titans who behaved so cruelly to the son of Zeus and Persephone, but simply "earth-born beings". It is known, however, that the Kouretes were included amongst such beings. It is also known that of the sons of the Great Mother the two older ones were always hostile to the third. The number of the Titans who murdered the first Dionysos is expressly stated as two.

In the Orphic continuation of the story, the Kouretes were replaced, by the Titans. It was told that they surprised the child-god as he was playing with the toys. Jealous Hera had instigated this: it was she who on a previous occasion had sent the Kouretes against Epaphos, the Dionysos-like son of Zeus and the cow-shaped Io. The Titans had whitened their faces with chalk. They came like spirits of the dead from the Underworld, to which Zeus had banished them. They attacked the playing boy, tore him into seven pieces and threw these into a cauldron standing on a tripod. When the flesh was boiled, they began roasting it over the fire on seven spits.

In another tale it seems that when Zeus smote the Titans with his lightning they had already eaten the flesh of Dionysos. They must have been hurled back into the Underworld, since in the Orphic hymn they are invoked as the subterranean ancestors of mankind. But from the steam caused by the flash of lightning, which set them on fire, was formed a sort of ash. The ash turned into that substance from which the followers of Orpheus taught that men were made. This teaching, however, is of much later date than the story of the sufferings of the horned child-god.

The story was also told: The boiled limbs of the first Dionysos, the son of Demeter, went into the earth. The earth-born beings had torn him to pieces and boiled him, but Demeter gathered the limbs together. This may, however, be a story concerning the creation of the vine. We learnt from the followers of Orpheus that Dionysos's last gift was wine, and indeed he himself by then assumed the name Oinos, "Wine". It was Zeus who brought fulfillment, but it was Dionysos who completed the fulfillment or, to use a modern expression, "set the crown on the world's creation". But this notion, too, is of later date. In the original tale the boiled limbs of the god were burnt (with the exception of a single limb), and we may presume that the vine arose from the ashes.

All tales spoke of this exception of one limb, which was devoured neither by the Titans nor by the fire nor by the earth. A goddess was present at the meal in later tales, the goddess Pallas Athene, and she hid the limb in a covered basket. Zeus took charge of it. It was said to have been Dionysos's heart. This statement contains a pun. It is also said that Zeus entrusted the kradiaios Dionysos to the goddess Hipta, so that she might carry her head. "Hipta" was a name in Asia Minor for the great mother Rhea.

The phallic nature of Dionysus is revealed in the double meaning of the word Kradiaios. It can be derived from the kradia, "heart", and from the krade, "fig-tree", in which latter derivation it means an object made of fig-wood. The basket on Hipta's head was a liknon, a winnowing-fan, such as was carried on the head of festal processions and contained a phallus under a pile of fruit, Dionysos himself having made the phallus of fig-wood. It also reported that the Liknites, "he in the winnowing fan", was repeatedly "awakened" by the Thyiades, the women who served Dionysos on Mount Parnassus.

Like the later story of Jesus, Dionysus is linked to salvation as far back as the archaic myths. Dionysus went down into Hades, the place of the dead, and brought his mother back to life. In Italy, in the third or fourth century BC, texts written on gold plates and buried with the dead, describe the souls of Dionysus followers in the afterlife, drinking from one particular cool pool that will give them divinity and eternal life. Dionysus was celebrated in civic religion and in mysteries. The Mysteries of Dionysus included initiation by bathing -- baptism, a sacred meal, a myth about the death and resurrection of the god, and salvation. Dionysus was identified with the lamb, and called "King of Kings," "Only Begotten Son," "Savior," "Redeemer," "Sin bearer," "Anointed One," the "Alpha and Omega."

As we have seen, gods do not always, if ever, appear singly. Often many gods inhabit or characterize an experience. They exist in a state of mutual interpenetration termed, in psychology, contamination. Hades-Dionysus is a composite god, expressing characteristics of both these principles. For convenience, we shall examine first one god, then the other, and finally the composite.

Hades or Pluto is in certain respects the most potent archetypal principle in the planetary pantheon. It is the archetype of power itself, as it embodies the primordial forces of destruction and regeneration, the chthonic underworld in every sense, the secretive and subversive, the shadow, the id, the broiling cauldron of the instincts, the violent and the demonic, the fiery and volcanic, the elemental energies of nature. This dynamic is Pluto-Hades-Dionysus in Greek mythic terms; in Indian terms, Kali and Shiva in both their destructive and regenerative aspects. Whatever Pluto comes into alignment with, it greatly intensifies and compels that second archetype, deepens and makes more profound, destroys and transforms. It brings a titanic, overwhelming elemental potency, on a mass scale.

HADES is a symbol of the incredible, fathomless depths of the psyche. The true nature of all things is hidden in these depths of the unconscious. We must penetrate this depth dimension and discover what is hidden there. The Roman correspondent for Hades is Pluto, whose name means "wealth." This indicates the buried treasures existing in the depths of the psyche and experience of this realm of the underworld. We have an invisible connection to the underworld, which is Hades himself.

When Hades appears in the upperworld, he is frequently experienced as a vile violence, as in the case of Persephone's rape (see Chapter VIII). Hades hides invisibly in things. Death is always immanent. He required no cult worship from mortals, because he already possesses the riches of the depths of experience. The final act is always his, in any event.

The final purpose of every soul involves "devotion" to Hades, in a psychic sense. Most experiences are attributed only a relative significance when they are related to the personal experience of death. Even in life, most people are obsessed with death. Hades is the unknowable goal underlying all human experience. To put events into the perspective we will have on our deathbeds shows the meaning for soul inherent in these events.

DIONYSUS is the god of intoxication and madness, which can be a sort of "death in life." Addicts, like vampires, are virtually the living dead. His is the cult of the magical child, which is so influential in substance abuse recovery programs -- the inner child. James Hillman has attributed to him "the mystery of nursing and psychological rebirth through the underworld depths." Dionysus has been corresponded with a bi-sexual consciousness. This is a god who is primordially united with his own femininity. This "royal marriage" of the inner self is an already present possibility available to anyone.

Through Dionysus, we experience soul in matter; the imaginal aspect of reality, and the reality aspect of imaginal life. There is no mind-body split, here. There is no clear distinction between sanity and insanity. Dionysus' madness is characterized as ritualistic enthusiasm. This energized enthusiasm is abandonment of ego-consciousness. Bisexuality here implies the internal mingling of male and female, active and passive, life and death. This does not come about through "will" but through acceptance.

Dionysus maintains his undivided state by not being too analytical (Apollonic). His style is to synthesize. He intimates a polytheistic approach to psychology which recognizes and embraces many archetypal perspectives. When one invokes Dionysus, there is personal experience of psychological polytheism.

The archetype of the divine or miraculous child appears in advance of a transformation in the psyche. It is a symbol of promise of the joyous renewal of life, the vision of new beginnings, new possibilities, new attempts, the possibility of regeneration. In its negative form, it appears as the youth, male or female, who never grows up because emotional development is stunted in adolescence. This retarded psychological development of the vegetative youth is called *puer* psychology.

High-living Puer is identified with the child-god Iacchus -- here, god of fragmentation, or psychic dissociation, intoxication and renewal. Aimlessly travelling in and out of various groups, puer lives for amusement and sheer excitement, picking up friends when he wants and dropping them when they become in any sense a responsibility. For one person this puer psychology is something that needs to be outgrown; for another it is the *very means* of development. Conceivably it may be both.

PHYSICAL FORM:

To begin to comprehend Dionysus, his ascent to Olympus and his descent into Hades, we must understand that he is the embodiment of 50,000 years of human shamanic spirituality and techniques of inducing ecstasy. The shaman is a specialist in the sacred who succeeds in healing his own mental crisis bordering on madness, having mystical experiences, expressed in ecstatic trance. This primitive religious ecstasy signifies the soul's flight to heaven, or its wanderings on the earth, and its descent to the subterranean world, among the dead. Psychoactive plants and potions were among the technologies shamans employed.

The shaman is medicine man, priest and soul-guide. He is generally with the spirits, retrieving lost souls, or guiding the dead. In fact, the body's abandonment by the soul during ecstasy is equivalent to a temporary death. So, the shaman is one who can die, and then return to life, many times. He learns this technique through initiation -- how to orient himself in unknown regions, and explore new planes of existence. He knows how to find the gates to transcendence and hell. He knows what obstacles he will meet on the journey and how to overcome them.

Dan Russell is an independent scholar whose recent book *Shamanism and Drug Propaganda*, traces the roots of the modern Drug War back to their ancient unconscious origins. Beginning with the evolution of Paleolithic proto-hominids, Russell presents one example after another in support of his thesis that the Drug War is a psychological inheritance from ancient times, one which is now deeply embedded in and, in some cases, the driving force of our culture of technology, power and profits.

Russell draws extensively from archeological evidence, presenting object after object engraved with archetypal symbols of shamanic travels, and he deconstructs countless ancient stories and myths to show that many of them alluded to visionary states elicited by the ingestion of psychoactive plants and potions. Russell, building on the work of John Allegro, even presents evidence that the Bible is riddled with cryptic stories and word-play bestowing the importance of shamanic inebriation, such as the cannibis used in Hebrew anointing oil and temple incense. Over time, the stories told by ancient people (culminating in the New Testament), have been co-opted, corrupted, and manipulated by forces bent on producing a conformist culture.

Modern industrial culture, argues Russell, is dependent upon the active eradication of the conscious knowledge of entheogens. As explained by Russell: The archetypal frame of reference has been carefully manipulated, through succeeding historical stages, to destroy conscious, cultural, knowledge of the ancient shamanism. When conscious memory (mnemosyne) is destroyed, what is left is emotion, irrational attitudes dictated by 'parentally' inculcated compulsions: God-the-Father as Pavlov. It's not for nothing that the great shaman Plato said that all learning is remembering. The great crime of the nonconforming shaman is that he or she struggles to bring to consciousness that which the authorities, and their compulsive sheep, want forgotten.

If a "descent" does not come in initiatory form, it often comes as a dis-ease or ordeal -- as what the Greeks called *katabasis*. The mark of descent, undertaken consciously or not, is a newly arrived-at lowliness, associated with water and soul, as height is associated with spirit. "Water prefers low places."

The lowliness happens particularly to men who are initially high, lucky, elevated (Bly, 1990). One is no longer special, but fallen, degenerate. Depression comes with tragedy and a mean life of ordinariness, heaviness, silences, weightiness and soberness begins. Katabasis can appear without either addiction or ill health, and can be the root of suicide. The way down and out doesn't require poverty, homelessness, physical deprivation, but it requires a fall from status with emphasis on consciousness of the fall. Katabasis carries the whole concept of disaster, of tragedy; one sees one's own darkside, the dark side of those close to him, and they see yours. Long difficult repentance can be a way of descent, of admitting powerlessness. The descent is a response to the something that wants us there -- the Dark Queen.

The medical model of addiction is a scientific theory with roots in particular social and political prejudices. Dionysus is seen in modern patterns of substance abuse and recovery programs. As Dionysus is the god of madness, he brings denial, anxiety, rationalization, toxicity, and prejudice in his wake. It is easy for Dionysus to "go with the flow." But it is difficult for individuals of this type to be committed, which includes accepting discipline, recognizing limits, and being a responsible individual.

The drug issue usually attracts our attention through media presentations which seek to reduce the issue to a single, instantly comprehensible message but in the process an inaccurate and largely false impression is created. Even among many drug workers and researchers, there is an avoidance of anything that smacks of theory, and a preference for action, even if that action is based on nothing more than personal prejudice and guesswork.

Furthermore, stereotyped and inaccurate views of addiction are not uncommon even within the ranks of those who work intimately with drug problems, where there is all too frequently a lack of coherence in terms of the work carried out, and an unwillingness to consider alternative interpretations. Perhaps most of all, there is the belief that the 'truth' about the nature and causes of addiction can be revealed by methods which rely principally on asking people to answer questions or express opinions about their own or other people's drug use.

However, answering questions and stating opinions are behaviours in their own right, which have dynamics all of their own. For these reasons, it is important to consider existing knowledge on the way people answer questions and explain their actions, since understanding these processes may yield fresh perspectives on the issue under investigation. *The Myth of Addiction* attempts to provide such an alternative perspective in the area of drug use and misuse. Whilst the ideas contained are not new, they represent a species of argument which is neglected, primarily because it is slightly more complicated than the more popular theories of drug use.

The argument presented in *The Myth of Addiction* (Davies, Harwood, 1997) is basically that people take drugs because they want to, and because it makes sense for them to do so given the choices available, rather than because they are compelled to by the pharmacology of the drugs they take. Nonetheless, we generally prefer to conceptualise our drug abusers in terms which imply that their behaviour is not their own to control.

This picture of learned helplessness arises because it is the picture we want to have, and the view is supported by a body of data consisting largely of people's self reports, opinions and statements of belief. This body of data, while potentially of great value in certain respects, is frequently put to uses for which it is ill suited; it does not always mean what we think it means. It is functional for drug users to report that they are addicted, forced into theft, harassed by stressful life events, and driven into drug use by forces beyond their capacity to control.

The central argument of this book is that such self reports have their own internal functional logic which is independent of reality, and that other research methods and forms of analysis would consequently produce a different picture. Furthermore, the fact that the explanations people provide for their behaviour make some reference to their own motives and intentions is hardly new; it is a central feature of social interaction, and not specific to drug users.

The standard line taken by a majority of people in the media, in treatment agencies, in government and elsewhere, hinges around notions of the helpless addict who has no power over his/her behaviour; and the evil Underground pusher lurking on street corners, trying to ensnare the nation's youth. They are joined together in a deadly game by a variety of pharmacologically active substances whose addictive powers are so great that to try them is to become addicted almost at once.

Thereafter, life becomes a nightmare of withdrawal symptoms, involuntary theft, and a compulsive need for drugs which cannot be controlled. In fact, not one of these things is, or rather needs to be true. Availability is probably a major determinant of the extent of drug use. The precise form taken by drug problems within any given society is determined in large part by that society's response to the problem.

The final message is that dealing with drug problems effectively depends on giving back to people the sense of personal power and volition which they require if they are to control their drug use for themselves, a power which existing concepts of 'addiction' frequently seek to limit or deny at the outset as a precondition to further treatment.

To take this apparently simple step, however, involves a major rethinking of contemporary moral attitudes to drugs and addiction, since these shape the nature of the help that we are prepared to offer. In the meantime, the existing system does not work; "retreads" in rehab programs are a truism. There is little indication that any program at the moment does better than spontaneous recovery (that is, giving up all by yourself); and some evidence that punitive legislative interventions make things worse by institutionalising the type of harmful drug use that we most wish to avoid.

Hades-Dionysus was described by Heraclitus in Fragment 15:

*If it were not in honor of Dionysus
that they conducted the procession and sang
the hymn to the male organ, their activity would be
completely shameless.*

Hades and Dionysus are the same, no matter how much they go mad and rave celebrating bacchic rites in honour of the latter.

This reveals how sexual fantasies connect the perspective of vitality with the perspective of the psychic depths. Events have meaning for both life and soul. Hades-Dionysus is easily seen in the irrationality in and about patterns of addiction. The earliest explanations for addictions and the madness of alcoholism included the assertion that the individual was possessed by the devil, or satanic forces. Mentioned repeatedly in the psychological profile of potential and active abusers are the following characteristic traits:

- 1). High level of anxiety in interpersonal relationships.
- 2). Emotional immaturity (Dionysian *puer* or eternal adolescent).
- 3). Ambivalence or hostility toward authority. Passive Aggressive.
- 4). Low frustration tolerance.
- 5). Grandiosity.
- 6). Low self-esteem.
- 7). Feelings of isolation, alienation.
- 8). Perfectionism (a form of self-punishment).
- 9). Shame and Guilt (feeling either sub- or superhuman, rather than human).
- 10). Compulsiveness.

These traits can range in degree from the impulsive personality to the sociopath or psychopath, who is unable to experience guilt or responsibility for his/her behavior. The Dionysian personality is apprehensive because he can never determine when he will become possessed by the archetypal compulsion and be carried away into revelry and excess.

The tragic consequences of alcoholism and heroin addiction are well-known. The making of wine, and the imbibing of poppy juices or sap was known to the Cretans of the Late Minoan period, and survives as a "drug cult" in our modern world, with its own hallowed grounds and shrines. Most drug use is highly ritualized and repetitive. It is linked to environmental and psychobiological cues -- set and setting.

Stages of substance abuse can be classified as follows:

- 0). abstinence
- 1). initiation of use
- 2). continuation (susceptibility increases with each new exposure)
- 3). transition (the change from use to abuse produces shame and disgust, increasing anxiety)
- 4). cessation means either satiety or abstinence. This requires fundamental resharing of the personality and self image; not substitution of one addictive relationship for another
- 5). relapse, or reversal

The substance of addiction can include those not commonly thought of in such a way, such as interpersonal relationships (codependence) and even pets. Other common abuses include: alcohol, nicotine, ecstasy, THC, amphetamines, cocaine, narcotics, barbiturates, caffeine, masturbation, gambling, food and psychedelics. Mushrooms, while relatively

harmless, are traditionally associated with the underworld, and have been called the souls of the dead, and "sons of the Gods."

There is a plethora of theories describing the origins of addiction patterns, including a life-theme theory of chronic drug abuse, which provides the primary narrative thread of a life. Runaway drug use is generally acknowledged as a spiritual emergency. Among the most plausible other theories are the following:

- 1). personality deficiency
- 2). social influence
- 3). addiction-to-pleasure
- 4). disruptive environment
- 5). metabolic deficiency
- 6). bad-habit theory
- 7). drug subculture theory
- 8). ego-self theory
- 9). coping theory
- 10). achievement anxiety
- 11). neurobiological (the medical illness model)

It is likely that many of the above influences play an important part in any particular case. The "Life Theme Theory" takes into account the spiritual dimension of the experience. The characteristic lifetheme lies deeper in the psyche than the ego and lifestyle of an individual and conditions them. It is the core conflict of the person, that the poison is the cure, and in fact, the individual seems preprogrammed or predisposed to this compulsive behavior. The myth manifests in life as an uncontrollable repetition compulsion, altering the limbic system. It may seem like a strange way for the psyche to insure the wholeness of a person, but it is a survival reality for some.

Drug induced states vary widely, but in general are means of artificially inducing contraction or expansion of the ego. Amphetamines appeal to unreflective action-oriented types; narcotics abusers typically try to withdraw from the problems of life rather than conquer them. Barbiturate users seek a ticket to oblivion where they can release their tension in aggressive behavior or accidents with no ensuing sense of guilt.

The 70s and 80s epidemic use of cocaine created exceptions to the older personality profiles. Many were normally considered high achievers, but subject to crises of alienation and feelings of despair and emptiness, combined with a pursuit of pleasure and escapism. The powerful stimulus of cocaine provided a potent, if temporary release from the pressures and problems of modern, competitive. It provides the illusion of sparkling brilliance, and provides many with a surrogate love-affair or romance with the white demon lady.

Spotts and Shontz (1981) described this personality in their Life-Theme Theory: "*The cocaine users we studied seemed to have progressed further along the developmental path than men in the other groups. Most described early lives characterized by a rather high level of positive family feeling. Most described their mothers as warm and their fathers as strong and encouraging. As adults, cocaine users are ambitious, intensely competitive men who work*

hard to become successful. They like to take risks and live by their wits. They have stronger and more resilient egos than men in the other drug-user groups. They display a more intense commitment and willingness to struggle to overcome their environment but are highly prone to symptoms of alienation from the psyche. They think of themselves as self-directed and self-sufficient, competent people--proud, energetic men who live life to the full and are capable of carrying pleasure to its extreme. The key to understanding the cocaine users we studied is their intense counter-dependency, their need to be completely self-sufficient...They take cocaine to expand their egos and their self-confidence. In addition, they report that the drug produces temporary psychological states that are so ecstatic that life and fulfillment seem complete, if only for a moment.

Clearly this is merely a segment of today's drug-consuming public. All seek to alter the limbic system to produce euphorias of different types and duration. The intermingling of Hades-Dionysus shows in cocaine addiction by also stimulating the user's sexual fantasies. This is, in fact, many user's primary interest in the drug; it acts as an aphrodisiac. Fantasies of bisexuality occur in those who might never experience them otherwise; fetishes may emerge such as transvestite cross-dressing. In confusions of masculine and feminine aspects there is no psychological fusion of the magical and religious powers of both sexes. Instead there is an inclination toward, if not overt "acting out" of sexual relations with members of both sexes -- taking the symbolic and metaphorical literally, and using it to moodalter and transgress boundaries.

Positively, Dionysus is creativity in the inspired, almost intoxicated sense, in which unconsciousness wells up. Identifying brings divine punishment as one suffers the fate of the God. When our ego takes credit for the creative flow, it brings dismemberment. Creativity is safe if one is uncomfortable and great effort is necessary. The rebirth aspect of the Dionysian cycle is revealed in the process of recovery from chemical addiction. John Bradshaw wrote the classics on this topic, including *Bradshaw on the Family*, *Healing the Shame that Binds You*, *Homecoming*, and *Creating Love*. There are also many excellent books for spouses of addicts and alcoholics which deal with issues surrounding codependency, such as those by Melody Beattie.

In substance abuse recovery programs, healing often comes through giving positive attention to the wounded and disenfranchised Inner Child, and giving up also the addiction to "acting-out," dramatics and hystriotics, the emotional roller-coaster. Recovery means reclaiming and championing the lost or disowned Inner Child and healing the toxic shame and low self-esteem that binds one to the addictive pattern, keeping one essentially a prisoner in a dark cave, metaphorically speaking. We must learn to give up control and enmeshment, love ourselves, reframe mistakes and self-criticism, and find support and validation in positive ways that don't lead to self-destructive or self-defeating patterns. This develops awareness and changes our self-image.

To do this we must grieve our original pain, reown our disowned parts, move through our fears and allow ourselves to feel again, rather than bury the problems. We have to get in touch with how depressed and angry we really are, and feel that unresolved grief. It also means connecting in a way that is positive for the whole person with Higher Power, a transformative vision, one's own form of spiritual awakening or rebirth, and finding bliss in non-attachment. Finding the Inner Child is part of everyone's journey toward

wholeness. The inner child journey is the hero's journey. Becoming a fully functioning person is a heroic task. Discipline helps us release tremendous spiritual power, serenity and empowerment.

Occupations associated with the qualities of Dionysus-Hades include:

actor	peer counselor
addict	rehab nurse
alcohol counselor	oil baron
alcoholic	orgy participant
bartender	raver
brewer	reveler
drugdealer	revenueur
gangster	sponsor
mardi gras celebrant	trance dancer
musician	vampire
nuclear plant worker	wino

EMOTIONAL IMAGE:

Emotion also has an intoxicating quality. This was reflected in the Dionysian cult through the counterparts of tragedy and comedy. This is a positive outlet for the dramatic nature which possesses us in the throes of addictive patterns. The compulsion is channeled into a *katharsis* which is expressed in the healing power of arts. Today, we have in the therapeutic arts the practice of psychodrama to resolve emotional problems through role-playing.

These artforms grew out of Greek culture as the natural result of their belief that excessive action in a given direction results in spontaneous transformation into its opposite. Drama embodied tension, while comedy was free and unrestrained. Tragedy emerged from the improvisations of poets, while comedy was born in phallic dances and songs. When comedy flows spontaneously from the comedian, he is moved to push into an exploration of the Unknown. You can pretend to be serious, but not funny.

The Greeks certainly didn't approach their theatre as entertainment, as we do today. Plays were state-wide religious festivals, open to the entire population. Drama was a concerted effort designed to elevate the consciousness of the whole community. It was an imaginative enactment fusing theatre, religion, politics, and psychodrama. Actors were regarded as interpreters of the gods. In their emotion-intoxicated scenes, they could move the entire audience into an enraptured empathy.

Theatre amplified the interactions of gods and men, and the hero with the tragic flaw or comedic underbelly. They were embodied in a multisensory mode, illustrating familiar stories and mythic themes. The plays provided a safe ritualistic learning environment where participants could cathart their emotions. One primary purpose of play is as a learning experience. Tragic drama provides an 'early warning system' extending personal experience. It is way of facing finiteness without neurotic repression, of losing one's life in imagination to retain it in reality, a way of studying the consequences of moral choices in dramatic simulation. Then when the real crisis comes we are somewhat innured, and can reach down for the emotional resilience and moral courage demanded by life.

The structure of Greek tragedy is inherent in the dual aspects of Dionysus. He is god of wine, joy and plenitude and symbolizes the lush harvest of the vines. But he is also the god of compassion as well as emotional excess, torn to pieces by the Titans, and symbolized by the pruned and twisted stumps of the wintering vine. Repeatedly tragic dramas show this cycle of the seasons. The necessary cycling interaction of joy and sorrow.

According to Ralph Metzger (*Maps of the Mind*, "Grapes Grown from the Twisted Stump: Dionysus, Drama and Democracy"), even if the Greeks believed in a rhythmic universe of contrasting joys and pains, they also deplored excess, as the failure to realize that every pride must ebb and anger subside. Hence disaster results from breaking the principle of *sophrosyne*, 'nothing to excess'. The finest human ideals, honed to god-like perfection, swing to and fro, in dynamic opposition. It was a frightening existential vision, which the Greeks used drama to exaggerate.

It is easier to teach by negative example that every situation requires the rock of Apollo, the whirlpool of the Furies, and the justice of Athena to mediate between them. Error can be universally dramatized. Virtue requires each person to steer between intellect and impulse. Human folly is thus less a consequence of badness in people or values than of misjudgement in combining values. The tragic hero triumphs, over-learns the winning value combination, and employs it in new circumstances with disastrous results. Such insights give Greek tragedy its compassion and emotional range. In each case a single element in the value system grows 'cancerously' to kill the whole. We hate the crime but not the perpetrators.

Another function of Greek tragedy was the presentation of anomalies that called forth a creative response. Disintegration must precede reintegration and only the greatest resilience in the face of anxiety can achieve this. If we accept that higher levels of moral awareness are born out of a frustrating dialectical clash between opposed moral positions, each inadequate to the dilemma presented, then the presentation of tragedy makes brilliant sense. Essentially tragedy imposes a Dionysian/Christ-like 'crucifixion' between polar ideals upon an entire audience.

But tragedy doesn't necessarily spell unmitigated misery. The principle of *peripeteia* works here too, as the trough of tragedy yields to a wave of elation -- and the story covers the entire emotional spectrum. If the Greeks depicted disintegration on the stage, this had the effect of fostering reintegration around the stage as thousands wept as one. These great waves of intoxicating emotion, accompanied by clasping and weeping in one another's arms affirmed the vitality of the moment, the infinite preciousness of human lives, poised on the edge of an abyss. For the joys of life are found in its contrast and closeness with death, as embodied in Hades Dionysus, patron of this theatrical art. Attachments are strengthened in beholding abandonment. It takes genius, surely, to encounter imaginary death in a way that celebrates real life.

A psychological experiment by Leonard Berkowitz suggests the effects of tragic drama. Two groups were shown an identical excerpt from a violent film. The first group were provided with a story context that justified the punishment passed on the protagonist. The second group witnessed grave injustice to a tragic hero. When members of both groups were subsequently invited to punish an incompetent assistant, the witnesses to tragedy were three times less punitive than the rejoicers in righteous wrath. Tragedy gentles, then. Few wish to add one iota to human pain. Rather, they feel drawn, participatively and democratically, into an unjust scene to set it right.

Greek drama and democracy, viewed as wholes, were celebrations of *harmonia* (harmony) and *symphronasis* (reconciliation and symphony), terms employed by the mathematician and democratic theorist Pythagoras. Harmony was not some persistent harping on a single mean, but the play of the instrument around the mean. Similarly Greek tragedy shows scant respect for the equable temperaments. The ideal is both the attainment of heroic extremes and the realization that harmony requires one extreme to yield to its opposite (in the rhythm of verse, plot and music). What is heroic about Oedipus is his *anagnorisis*, his painful change from ignorance to knowledge based on Orphic rites of initiation and purification. He had accepted and learned from the extremities of human experience, freedom-determinism, vigilance-blindness, sovereignty-exile.

It remained for Anagoras, teacher of Pericles and Socrates, to propose that mind pervaded a patterned universe, wherein every value contained the seeds of its opposite, where democratic debate, like theatre, staged conflict in order to contain it. The man who can most truly be accounted brave is he who best knows the meaning of what is sweet in life and what is terrible, and then goes out undeterred to meet what is to come. Therein lay the moral strength of Socrates.

acting out	moisture	transformation
bisexuality	rejection	ecstasy
gratification	deprivation	madness
dramatics	intensity	impotence
drunkenness	crisis	stupor
gregariousness	disintegration	addiction
emphasis	excess	ambiguity
gripping	dissolution	passivity
abuse	mutation	tragedy
wine	hysteria	play
opium	elation	rave
heroin	vitality	zoe

INTELLECTUAL IDEA:

Our concepts about ecstasy and intoxication and their place in our life guide our behavior. Its difficult to find ecstasy in life without running into the risks of addictive patterns. When it comes to compulsive behavior, we *know* how we should behave, but *we do what we want* usually based on how we feel. Imaginal psychology holds a radically different view of Dionysus than the medically-based model of recovery, and sees purpose and value in addiction's inner dynamics, including depression and feminization. It sees the symptom as poison and cure are the same, in the alchemical sense -- the nursing and deepening are contained within the problem, rather than coming from outside it. The god IS the symptom; pathologizing *is* a form of soul-making.

There are several forms of psychophysical and psychosexual intoxication, depending on what level of experience we consider. There is intoxication with physical beauty and strength, intellectual achievement, position in life, learning, virtue, goodness, power and authority, and even intoxication with detachment from the world. On the mental level, Dionysus can be associated with the tendency to psychological fragmentation, psychological femininity, bisexuality and hysteria, according to Imaginal Psychologist, James Hillman (*The Myth of Analysis*).

Hillman suggests that "Dionysus is mainly a god of women. Though he is male and phallic, there is no misogyny in this structure of consciousness because it is not divided from its own femininity. The change that is indicated by Dionysus is one where female is not added to or integrated by male; rather, the image shows an androgynous consciousness, where male and female are primordially united."

The mytheme of Dionysus not only concerns this archetypal bisexuality, but also reflects the magical image of Tiphareth (from the Qabalistic Tree of Life), the Divine Child. "Dionysus as child refers to a view of reality which is not divided. This perspective would not exclude the child for the sake of maturity, since the child is the synthesis itself."

Tiphareth is the sphere of the Heart Center, and its archetypal images include the sacrificed god and the magical child. They are a key to heart-level initiation.

In the Dionysian worldview "affliction would not be divided from its own potential of nursing, which is constellated by the suffering and childishness." This nursing often appears in real life as the codependent caregiver of the addicted individual -- the rescuer, who gives 'the milk of human kindness' till it hurts. "The torn and rendered suffering is not healed by the medicine of Apollo, but becomes an initiation into the cosmos of Dionysus."

Dionysus reflects the plurality of the self in his fragmentation and is thus the archetype of a polytheistic approach to life, which sees the dynamics of many god/goddesses in constant interaction. This polytheistic magical child seems reminiscent of Freud's "polymorphously perverse child," with its strong desires for power and wish-fulfillment. He joins disparate elements. Hillman points out that, "Dionysus is Zeus-son, the renewal of the High God through his most physical and yet psychological son, at the center of whose cult from the earliest times is the child, the mystery of nursing, and of psychological rebirth through underworld depths."

His paradoxical qualities show that "compulsion and inhibition belong together. In Dionysus, borders join that which we usually believe to be separated by borders. We cannot tell whether he is mad or sane, wild or somber, sexual or psychic, male or female, conscious or unconscious; the 'border' is manifested. ...ZOE is another way of speaking of this ambivalence. The force of life, like the child, needs nursing. The Dionysian experience transforms women not into raving hysterics and rebels but into nurses."

"The central meaning of Dionysus is his relationship to the underworld of soul: Dionysus, Lord of Souls. 'Horror' is for the sake of soul, whose subconscious dominants (underworld lords) are Hades, Dionysus, and Persephone."

Hillman stresses that "a Dionysian ego must express bisexuality. ...His dismemberment is the fragments of consciousness strewn through all of life, through every erogenous zone and plexus of our physical bodies. In him the bisexual pair are united...Bisexuality combines not only male and female; it also brings together life and death. One aspect of life is riven so that another aspect -- the psychic and called "death" -- can reach awareness. Life can only be understood in terms of the soul's one certainty: death. Approximation to the hermaphrodite is a death experience; the movement into death proceeds through bisexuality. Death and bisexual consciousness are what Dionysus involves. Dionysus represents a radical shift of consciousness where...another consciousness would enter into us as we approximate our own bisexuality."

Dionysian consciousness may be characterized as follows: "We would have the experience of passivity and an inability to proceed very far against nature. We would be aware of a fundamental defect and lacuna in our consciousness and of a dependency upon something else, out of which it comes. This lacuna of the feminine void is not to be overcome, fulfilled, completed. Rather the emptiness is the completion, so that this lacuna becomes the place of reflection, the place of psychic awareness, and offers the space of carrying and containing; it is psyche itself. Our consciousness would provide the blood of nourishment; and be able

to feed itself from what processes it generates within its own imaginal matrix. Consciousness would no longer be only a male aura seminalis, instigator and propagator."

"The reddening spoken of in alchemy, and the self-feeding by means of the pelican, would thus be indicated. Gives the experience of infoldedness and interiority, things not coming to final fruition in exteriorized forms. Its movement is slower, sadder, cooler, incorporating left-handedness in its symbolic senses. We would be aware that something driving is missing, a basic inoperancy of phallic compulsion."

"With the return of passivity to consciousness, the inertia of depressions and the helplessness of suffering would take on another quality...belonging to consciousness, being part of its composition, not afflictions coming to it unconsciously, making it unconscious, dragging it down and away. Depression is then no longer a sign of inferiority to be felt as defeat. Movement of the Dionysian libido comes and goes. The ego cannot control these movements. Heroic consciousness has an upward path and places a negative sign upon digressions and descents. The libido descends for refuge when driven by excessive demands of the ruling will."

"Dionysus is a god of moisture and the descent is for moistening. Depression into these depths is not experienced as a defeat (since Dionysus is not a hero), but as downwardness, darkening, and becoming water (i.e. the alchemical solutio). The movements of libido are mythical events in which we participate, and as such they are objective. When the ego forgets this and takes the vanishing personally, it makes depression by identifying with the God. When Dionysus appears there is revel and celebration; his disappearance is a winter of discontent. Connecting the flux of libido to an archetypal dominant gives depression a religious aspect; a crisis of mood, energy and also belief...the movements are respected as natural and necessary to the libido itself."

"This is a body-consciousness, giving a somatized awareness of self in concrete, actual behavior. Transforms that old frustration of reflection divided from action, where consciousness is conceived mainly in terms of speech and mind, giving over the unconscious to the body and its "acting out." Body is no longer the realm only of abyss and passion; it might now fill up with slowness and interiority. Hysteria somatizes consciousness. Psychic events become body events; meanings enter behavior. Hysterical reactions are attempts to refind nature, a prodromal bisexuality showing the feminine need for initiation into body, life, and love in Dionysian terms."

Psychotherapy reaches its ultimate goal in the wholeness of the conjunction of masculine and feminine, in the bisexuality of consciousness. Bisexuality, that incarnation of durable weakness and unheroic strength is found in the archetypal image of Dionysus. "Bisexual consciousness here means also the experience of psyche in all matter, the fantasy in everything literal, and the literal too, as fantasy; it means a world undivided into spirit and matter, imaginal and real, body and consciousness, mad and insane. In terms of the ego and its life, analysis may be Dionysian in experience: a prolonged moistening, a life in the child, hysterical attempts at incarnation through symptoms, an erotic compulsion toward soul-making."

"The therapeutic goal of the coniunctio (the royal marriage of solar and lunar consciousness) would now be experienced as a weakening of consciousness, in the former sense of that notion, rather than an increase of consciousness through "integrating" the anima. The coniunctio would now be weird and frightening, a horror and a death, inclusive of psychopathology...sacrifice of the mind's bright eye...It means an effeminization in the sense of a loosening and a forgetting, a permanent regression to the childlike half-creature, a permanent "softening of the brain", a true loss of what we have long considered to be our most precious human holding: Apollonic consciousness."

We are "obliged to stay within the mess of ambivalence, the comings and goings of the libido, letting interior movement replace clarity, interior closeness replace objectivity, the child of psychic spontaneity replaces literal right action. Dionysus means the undivided, an early meaning of that word being 'knowing with.' 'Consciousness' once meant 'knowing together,' a shared secret. We cannot go it alone, or know it alone. Our consciousness cannot be divided from the other..It is his nature to leak and flow into communion, comingling of souls, thiasos, community, a communal flow with the complexes, a comingling of consciousness with the 'other' souls and their Gods, a consciousness that is always infiltrated with its complexes, flowing together with them."

Further reading on Hades-Dionysus may be found in the following:

The Dream and the Underworld, James Hillman, Harper & Row.

The Myth of Analysis, James Hillman, Harper & Row.

Psychotherapy and Alchemy, Edward Edinger

Androgyny, June Singer

Theories on Drug Abuse, NIDA Research Monograph 30, Mar 1980, US Govt. Printing Office

Dionysus: Archetypal Image of Indestructible Life, K. Kerényi, Princeton Univ. Press, 1976

The Bacchae, Euripides

Dionysus, Myth and Cult, Walter F. Otto

"Hysteria: the Mythical Syndrome", Neil Micklem

"Dionysus in Jung's Writings", James Hillman

"Dis-Membering Dionysus; Image and Theatre:, Enrique Pardo, Spring 1984

Psychodrama: Resolving Emotional Problems through Role-Playing, Lewis Yablonsky, Gardner Pub,

1981

Psychodrama, Adaline Starr, Nelson-Hall, 1977

SPIRITUAL MYTH:

Although we have spoken of Dionysus as the god of moisture, paradoxically he is also associated with fire. This links him with Trump XX, THE AEON, which corresponds with the element fire in Qabala. As Zeus'-son, he is linked with the light of Zeus and the phenomenon of 'lighting up', and he was a torchbearer in the Eleusinian Mysteries. Lucian stated that "Fire is a Dionysian weapon." The torch-bearing ceremony opened that movement of the Mysteries where the Divine Child was born in the underworld.

Paradoxically, Dionysus is the god of all natural fluids, including wine, milk, sap, honey and blood. He is also the indestructible life principle. These combine in rain which nurtures plant life and blood (which combines fire and water) which nurtures animal life, and humor which nourishes psychic life. Imagine life without jokes, irony and humor! Humor, or comedy, keeps us from becoming 'too dry.' In ancient times, comedies were performed only once to preserve the element of surprise in the festivities. Dionysus is son of Zeus -- recall how rain frequently follows an impressive display of lightning and thunder in a cloudburst. Dionysus combines superabundant life energy with death-dealing power. He is insane with enthusiasm, and communicates this to his devotees in his epiphany.

Dionysus is not only a god of literal intoxication by mead, wine, or opium (which the Minoans resorted to when their "vision" failed). Mystics and visionaries speak of a spiritual intoxication experienced by the saints of various cultures. Their sufferings and ecstasies are related through the theme of the "dying and resurrecting god." There is a spiritual identity between Osiris, Dionysus and Christ -- for all suffered, were torn apart, and resurrected.

Hillman tells us that "Dismemberment becomes a way of discovering the puer spirit, for 'Dionysus, youngest of the gods' belongs to the theme of the renewal of the aging god. ...dismemberment refers to a psychological process that requires a body metaphor. The process of division is presented as a body experience, even as a horrifying torture. If, however, dismemberment is ruled by the archetypal dominant of Dionysus, then the process, while beheading or dissolving the central control of the old king, may be at the same time activating the pneuma that is distributed throughout the materializations of our complexes. The background of Dionysus offers insight into the rending pain of self-division, especially as a body-experience."

"Dionysus was called Lysios, the loosener. The word is cognate with lysis, the last syllable of analysis. Lysis means loosening, setting free, deliverance, dissolution, collapse, breaking bonds and laws, the final unravelling as of a plot."

Thus, the mystical Dionysus is corresponded with the alchemical operation of solutio, which implies liquefaction and dissolution. When a one-sided attitude encounters a more comprehensive viewpoint, the old attitude dissolves. Solutio is the dissolution of the old attitude and may be experienced as a threat to the worldview of the ego. The ego is interested in maintaining control. It tends to assume that it knows how to build personality from its perception of order. To this end, the ego embraces a paradigm or overview. Exposure to someone with a convincing and more comprehensive worldview can wash away the solid ground from under the ego's feet. This is not always welcome news, even though it may be an improvement over previous attitudes. The solid bottom washes away and one feels adrift, before the new contents are assimilated into the conscious attitude.

The unified state or Self is the agent of solutio in alchemy -- it introduces the mystery or irrational factor. Its long-range goal is the unification of the opposites. Both the archetypal masculine and feminine elements are being dissolved and united at the same time. Solutio is experienced by each as annihilation of itself. Later, it leads to rejuvenation in a new form. A large ego will be dissolved by its own excess. This dissolution leads the way to

rejuvenation with a sounder basis. Uniting the wild life-force with devotion in love can dissolve many problems or blockages to further transformation.

Internally, the unconscious or higher Self can dissolve the ego. Externally an individual with a larger conscious understanding and wisdom than one's own can bring about solutio. The best qualities of the individual ego survive. Aspects of the ego which consciously relate to the Self withstand solutio. Its major characteristics are:

1. return to the primal state
2. dissolution, dispersal, and dismemberment
3. containment of a lesser thing by a greater
4. rebirth, rejuvenation, immersion in the creative energy flow
5. purification ordeal
6. solution of problems
7. melting or softening process (dissolving).

The alchemist, cooperating intentionally with this transpersonal process, then experiences the diminishment by solutio as a precursor to union with the Self.

The worship of Dionysus in antiquity was intensely mystical, and caused people to suddenly abandon the social routine for participation in an emotionally ecstatic religious practice. To harmonize this dichotomy, the Greeks instituted the practice of worshipping both Dionysus and Apollo at Delphi. "Thus to combine the realms of the careful god of law and order and of the mystical god of license and abandon was one of the most startling examples of Greek genius for adjustment." The temple of Dionysus at Delphi was a theatre.

Like Christ, Dionysus had a mortal mother who became deified, Semele, and was characterized by incessant 'persecution,' which dramatized the resistance against the god's mode of being and his religious message, because it threatened an entire lifestyle and universe of values, symbolized by Olympian religion. As humans, we experience resistance to every absolute religious experience, because these are realized only by denying everything else, including equilibrium, personality, reason, consciousness, etc. Dionysus, like Christ, descends into Hades or death and brings a religious revelation.

The Dionysian ecstasy means, above all, surpassing the human condition, the discovery of total deliverance, obtaining a freedom and spontaneity inaccessible to human beings. That among these freedoms there also figured deliverance from prohibitions, rules and conventions of an ethical and social order appears to be certain. This explains, in part, the mass adherence of women. But the Dionysiac experiences touched the deepest levels. What distinguished this cult is not these psychopathic crises but the fact that they were valorized as religious experience, whether as a punishment or as a favor from the god.

What separates a shaman from a psychopath is that he succeeds in curing himself of his transformational madness and ends by possessing a stronger and more creative personality than the rest of the community. At the center of the Dionysiac ritual, we always find, in one form or another, an ecstatic experience of more or less violent frenzy: mania. This "madness" or manic state was in a way the proof that the initiate was *entheos*, 'filled with the god.'

The experience was certainly unforgettable, for there was a sharing in the creative spontaneity and intoxicating freedom, in the super-human force and invulnerability of Dionysus. Communion with the god shattered the human condition for a time, but it did not succeed in transmuting it. We can see the god run rampant in Bipolar Disorder. This potent energy can be channeled and the number of famous bipolar creative musicians, writers and artists is staggering.

The occultation and epiphany of Dionysus, his descents to Hades (comparable to a death followed by a resurrection), and, above all, the cult of the infant Dionysus, with rites celebrating his "awakening" -- indicate the will, and the hope for a spiritual renewal. Everywhere in the world the infant is charged with an initiatory symbolism revealing the mystical rebirth. More than any other Greek gods, Dionysus astonishes by the multiplicity and novelty of his epiphanies, by the variety of his transformations.

He is always in motion; he makes his way everywhere ready to associate himself with various divinities. Intoxication, eroticism, universal fertility and also unforgettable experiences are inspired by the periodic arrival of mania, the presence of death, immersion in animal unconsciousness, or by the ecstasy of *enthousiasmos*. All these terrors and revelations spring from a single source: the presence of the god. His mode of being expresses the paradoxical unity of life and death. This is why Dionysus constitutes a type of divinity radically different from the Olympians, (Eliade, *History of Religious Ideas*).

In the Hellenistic and Roman period the most popular Greek god was Dionysus. His public cult was "purified" and spiritualized by the elimination of ecstasy (which, however, continued to play a part in the Dionysiac Mysteries). It is the most lively, vivid mythology. Dionysus is a godman, mortal yet divine, persecuted yet victorious, murdered yet resuscitated. In some versions of story, Dionysus brought Ariadne back from Hades and married her. She symbolized the human soul and Dionysus therefore delivered the soul from death, uniting with it in a mystical marriage, elevating her.

The central act of the initiation was the divine presence made perceptible by music and dance, and experience that engendered belief in an intimate bond established with the god. The showing of the phallus was a religious act, for the generative organ of Dionysus symbolized how the godman had conquered death. The Indian version of the theme is the sacrality of Shiva's lingam. The infant, as sign of rebirth and renewal, continues the religious symbolism of the phallus.

To reiterate the relationship of Hades-Dionysus to the Trump XX, The Aeon, recall that Hestia (fire) gave up her throne on Olympus when this new god arrived on the scene. The Orphics considered Dionysus as the king of the new age. This myth seems still alive in our eclectic culture with its New Age concerns and the visibility of the holistic movement. Hopes attached to the triumph of Dionysus and the periodical regeneration of the world, imply belief in an imminent return to the Golden Age.

Judgement/Aeon is also linked with the planetary power of Pluto. It too symbolizes an awakening to something you had not seen before. A paradigm shift calling for new perceptions. Rebirth. Hearing the "call" of the spirit. All these are the hallmarks of Hades-Dionysus.

The divinatory meanings of the Trump include: "Resurrection. A sense of new life. Development of a new philosophy or sense of purpose. Coming to a crossroads concerning a higher purpose beyond yourself. Researching or examining something in depth. Looking deeply into a matter and determining its worth or value to you. Doing a personal inventory or self-evaluation. A review of past actions; confronting your motives. Accepting personal responsibility for how you have used your opportunities, reacted to initiations and testing. Criticism. Criticizing and judging others, or being criticized by them. Judgements made. Needing to see beyond prejudice and criticism. The voice of conscience. Guilt and forgiveness. Atonement. Repentance. Apology. Synthesizing the different parts of your personality such as the Parent, Adult and Child in transactional analysis. Body, mind, and spirit working for one purpose. Regeneration. Transformation. A change from one state or identity to another. A desire to merge with another, sexually or otherwise; or to merge with your own creative works. Realization of parenthood and family; responsibility for others as opposed to selfish self-preservation. Cooperation with other people as a social unit. A Rite of Passage."

Osiris, who was also killed, dismembered and resuscitated, prefigured Dionysus. In Orphic theology, the cosmology is conceived as a self-sacrifice of the divinity, the dispersal of the One in the Many, followed by "resurrection" or a return of multiplicity into primordial Unity. The mutual identification of all gods ends in a "monotheism" of the syncretistic type dear to the theosophers of late antiquity. It is significant that these universalists glorify especially the typically suffering gods, such as Dionysus and Orpheus.

Cultural Correspondences:

Bacchus (Roman)

Horus (Egyptian)

Soma (Hindu, intoxication)

Yama (Hindu, god of death)

Krishna (Hindu, heart center)

Kuvera (Hindu, god of wealth)

Agni (Hindu, god of fire)

Contemporary Examples: Hugh Hefner, head of the Playboy empire of Dionysian excess, father of the Playboy lifestyle. Picasso's art dismembered the classical body of perspective into cubism, prophesizing the fragmentation of the 20th century personality. The number of infamous actors with drug problems or high living styles is innumerable, among them (formerly) Charlie Sheen and Robert Downey, Jr.

Dialogue with Hades-Dionysus

Visualization: We enter a fiery atmosphere which flashes like opal. The scent of cinammon does little to allay the sense of terror and mystery. We tremble in fear and anticipation of dismemberment, or human human sacrifice, at least on the ego-level. Both masters of death and intoxication's grip are here -- their images merged in one terrifying figure. One is inaccessible in mortal form, but the other is all too easily obtainable in many forms of substance abuse. Hades is likened to a black ram, and associated with the cypress and narcissus. Dionysus came from the east in the train of the Great Mother, Cybele, who

taught him most of his rites of ecstatic abandon. He is either seen as mature, bearded, and ivy-crowned or as a beardless effeminate youth with curly hair which hangs long and loose. This form wears a panther or fawn skin. He holds the thyrsus (a long staff tipped with a pinecone-like finial and wrapped with ivy, as sign of his divinity). Approach this dual form through fear and trembling or intoxication -- with wine and strange drugs.

Do you ever feel like you're "falling apart," or "coming apart at the seams," or "can't get it together"? At those times we live the myth of Dionysus, the god who continually falls apart in dissolution, then gets it all back together again, until the next time. Dissolution means the breaking into parts, disintegration, death, being dissolved from a stable ego perspective. To be dissolute implies debauched, immoral behavior when life energies are dissipated wastefully, also from the perspective of an ego trying to cope with the daily demands of outer life.

What was the worst tragedy you've experienced in your life? Have you resolved this issue in your present or does it still haunt you? Are you still limited by its subsequent effect? Do you have Post Traumatic Stress Syndrome? Perhaps Dionysus can shed some light on the archetypal meaning of the event, its meaning for soul. We might also seek the meaning in every event that it holds in terms of our imminent death, as well as its meaning to soul. Through the power of Dionysus we can connect with the meaning of our suffering, and even come to see the comic irony in our most unpleasant circumstances.

Have you ever been a victim of substance abuse or a codependent? Dionysus is certainly at work here, and this is why addictions and alcoholism may be rightly considered diseases, or psychobiological complexes, not character disorders. Of course, we have some human will power and should exert it against destabilizing influences. Yet, when we are possessed by the god, we are essentially helpless before this powerful figure who wrenches us into the underworld, who seizes us and drags us down into the seamy side of life. Sober or intoxicated, a dialogue with Dionysus may inform us that behind the urge to intoxication lies another drive -- a spiritual need -- a desire for rebirth and new potential.

Jung counseled "William" the co-founder of A.A. a year before he instituted the widely used 12-step recovery program. Jung wrote that "alcoholism was the result of a hungering for wholeness on a low level. This means that underneath the craving for alcohol is the urge to individuation, but it is all so unconscious that the urge to wholeness takes the form of compulsive drinking.

That being the case, one can see why the alcoholic refuses to give up his drinking -- for it amounts to a "religion". It has as much grip on him/her as the individuation process itself. The person is as bound to the drug of choice as to the cross of his own self-development. For the abuser to give up the demon substances that have possessed him, he must find the greater spirit manifested in the urge to wholeness. As Jung put it in his letter, only one spirit can drive out another. The program of A.A. has been so successful with so many precisely because it does offer a spiritual orientation, and puts its member on the path to individuation. The same may be said for Al-Anon and co-dependents, who must give up the false need for controlling others.

Maybe you are involved in some form of dramatic expression, as a writer or performer. Seek contact with Dionysus to deepend the emotionality of your work, to broaden your dramatic feel. Another mode of contacting Dionysus is through the psychological tool of psychodrama, role-playing and role-reversal to kathart emotional issues. It is best practiced under the guidance of a professional therapist. Also, Transactional Analysis helps us distinguish between our Child, Adult and Parent selves. Gesttalt dreamwork, using essentially shamanic journeys into the dream realm, is however, probably more Dionysian in spirit.

Hades-Dionysus in Your Life:

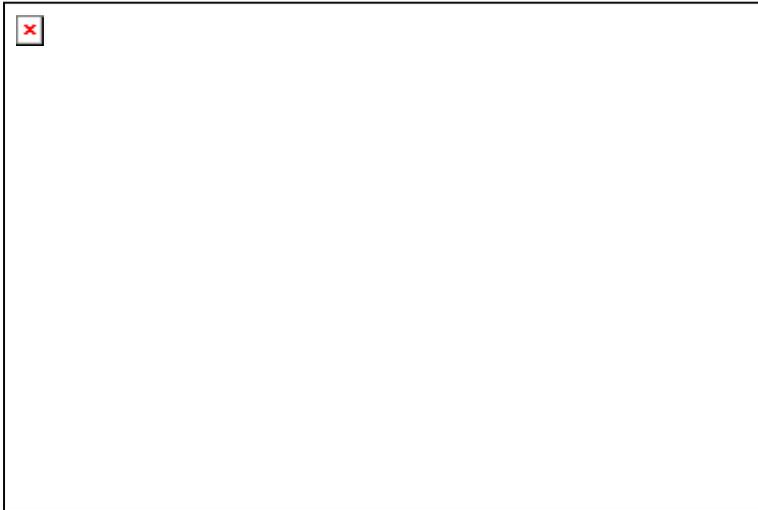
- 1. Describe a time when you went through a psychological crisis and felt like you were "falling apart."**
- 2. Everyday we say and do many things, some seemingly important, some trivial or even negative. If we were to die that night would "getting the last word" or "seeing the latest movie" seem so important? For one day, try to relate everything you do to its ultimate meaning for your death. In other words, "Would I be doing this if my death was near?" Record the results in your journal.**
- 3. Have you ever been involved in substance? How did you (or have you) overcome this dependency?**
- 4. Have you ever participated in a drama, either on-stage or off (i.e. a particularly dramatic life/death situation such as war or a natural disaster, or scene of an accident)?**
- 5. Greek tragedy dramatized human foibles or errors. Can you remember an error in judgement for which you suffered for a long time?**
- 6. If you have tasted the grip of Dionysus, have you also experienced his ecstasy, vitality or lust for life. Describe its attraction.**
- 7. Do you periodically "let off steam" in gregarious revelry? Are you considered to have a good sense of humor?**
- 8. Have you had any dreams of bisexuality? Did these disturb you? Were you afraid of compulsively acting them out? Is your conscious attitude strictly heterosexual? If so, these dreams and fantasies show the opposite unconscious position. Both are contained in the whole psyche. Some dreams of homoeroticism symbolize self-fertilization or getting in touch with deeper aspects of the Self.**
- 9. Have you ever experienced a spiritual renewal or rebirth of a mystical nature? Describe this experience and how it may have changed your lifestyle.**
- 10. Have you ever experienced compulsivity in regard to relationships, trying to rescue, control, or heal people? Or even in regard to uncontrolled compulsive thinking, and fantasizing about the Beloved?**
- 11. What "call" have you heard?**

12. Who or what is being criticized? What judgement is being made?

13. What new realization or epiphany is transforming you? Who or what are you merging with?

14. What or whom are you responsible for?

CRONOS



The End of Time

The Next Revolution in Physics

JULIAN BARBOUR

A revolutionary new theory that attacks one of the foundation stones of science--the existence of time

Richard Feynman once quipped that "Time is what happens when nothing else does." But Julian Barbour disagrees: if nothing happened, if nothing changed, then time would stop. For time is nothing but change. It is change that we perceive occurring all around us, not time. Put simply, time does not exist.

In this highly provocative volume, Barbour presents the basic evidence for a timeless universe, and shows why we still experience the world as intensely temporal. It is a book that strikes at the heart of modern physics. It casts doubt on Einstein's greatest contribution, the spacetime continuum, but also points to the solution of one of the great paradoxes of modern science, the chasm between classical and quantum physics. Indeed, Barbour argues that the holy grail of physicists--the unification of Einstein's general relativity with quantum mechanics--may well spell the end of time.

Barbour writes with remarkable clarity as he ranges from the ancient philosophers Heraclitus and Parmenides, through the giants of science Galileo, Newton, and Einstein, to the work of the contemporary physicists John Wheeler, Roger Penrose, and Steven

Hawking. Along the way he treats us to enticing glimpses of some of the mysteries of the universe, and presents intriguing ideas about multiple worlds, time travel, immortality, and, above all, the illusion of motion.

The End of Time is a vibrantly written and revolutionary book. It turns our understanding of reality inside-out.

"This book is gold.... Barbour leaves his mark on every topic he considers, including the arrow of time and the origins of the Big Bang...his book is a masterpiece."--The New York Times Book Review

"The orderly flow of events may really be as much an illusion as the flickering frames of a movie. And according to independent physicist Barbour's new book, even the apparent sequence of the flickers is illusory.."--Time

New and recent titles of related interest:

General Science

Julian Barbour is a theoretical physicist who has worked on foundational issues in physics and astronomy for 35 years. His first book, the widely praised The Discovery of Dynamics, has recently been republished in paperback. In 2000 the Association of American Publishers awarded The End of Time its prestigious award for excellence in the Physics & Astronomy section. Julian Barbour, a theoretical physicist, has worked on foundational issues in physics for 35 years. He is the author of the widely praised Absolute or Relative Motion?: Volume I, and is working on the second volume.

Book review by Anthony Campbell. Copyright © Anthony Campbell (2001).

There have been many books about the paradoxes of time, but this one is far and away more paradoxical than most, for its thesis is

that time doesn't exist at all. This idea is explored in great detail, mostly in relation to physics but the philosophical and even the

theological implications are touched on in an Epilogue. In fact, Barbour himself is something of a paradox, for he is a respected

theoretical physicist who has remained independent, supporting himself and his family by translation while working on his ideas

about time whenever he could. However he continued to keep in touch with mainstream physics and he acknowledges help from a

number of well-known scientists, including Lee Smolin among others.

The book, he tells us, is intended to interest that fabled beast, the "general reader", but he also expects his colleagues to look over

his shoulder. He mentions Roger Penrose and Richard Dawkins as other scientists who have written similar types of books, and

his own will certainly bear comparison with theirs. Like those authors, Barbour is an excellent writer, and his interests include

philosophy, art, and literature as well as science so that his view of his subject is multidimensional; no nonsense about "two

cultures" here.

In the first part of the book, Barbour sets forth a number of basic ideas which are then progressively elaborated in later parts. The

central mystery that he confronts in his first three chapters is best described in his own words.

"The main aim is to introduce a definite way of thinking about instants of time without having to suppose that they belong to something that flows relentlessly forward. I regard instants of time as real things, identifying them with possible instantaneous arrangements of all the things in the universe. They are configurations of the universe. In themselves, these configurations are perfectly static and timeless. But how and why can something static and timeless be experienced as intensely dynamic and temporal?"

These instants of time Barbour calls "Nows" or "time capsules". Examples include long-term memory stored within the brain,

fossils and geological records, and the human body, which contains within itself more time capsules nested one within another (cells, genes). The universe is composed of things like this, and it exists within what Barbour calls Platonian space, which is an unimaginably vast configurational space. To help us understand what this means, Barbour uses the analogy of Triangle Land: the different ways that triangles can be arranged in a configurational space. Much poring over of diagrams is needed here and elsewhere in the book if his argument is to be grasped, and my attempt to do so wasn't helped initially when a Necker cube illusion made me think that a diagram was meant to represent a solid cube whereas it's really supposed to be hollow. A note in the legend might have made this clearer.

In fact, this book does demand close attention from the reader, in spite of the beautiful clarity of the text. The difficulties are of at least two kinds. One comes from the complexity of the physics. The theory that Barbour advances has profound implications for both quantum mechanics and general relativity, and these implications are examined in considerable depth. Part of Barbour's thesis is that his approach will reconcile these two fundamental scientific theories, something that ultimately baffled Einstein and has still not been achieved. Certain more technical or more peripheral sections are enclosed in boxes, so the reader can skip them if necessary, and other material is placed in the notes at the end. Even so, Barbour pays his reader the compliment of thinking that he or she is willing to come to terms with some pretty deep ideas.

The other, and even more profound, kind of difficulty arises from the nature of the theory itself. We feel as if we have our being in time. If there is no time, what meaning can we attach to the notions of past or future, and - even more difficult to accommodate - our perception of motion? Barbour suggests that what we see as motion, in a leaping cat or a diving kingfisher, is really a series of still photographs, which are somehow brought together by the brain to produce an illusion of movement. Of possible relevance here is the very interesting fact that in certain kinds of brain damage the ability to perceive objects in motion is lost. Barbour mentions this, but not the equally interesting observation, recorded by Oliver Sacks, that some patients suffering from post-encephalitic Parkinsonism found themselves frozen in time for years, until released from this state, though only temporarily, by the drug levodopa.

Trying to picture oneself in a timeless state is probably something like a fish would feel if it tried to picture itself out of the water. Our language, of course, has no vocabulary to describe this, and Barbour finds himself repeatedly forced to use temporal language to describe his theory, even though he acknowledges that this is just shorthand. Indeed, even if he is right, will it ever be possible to feel that he is? The analogy that comes to mind here is with the shift from a geocentric to a heliocentric universe that took place in the sixteenth century; no doubt many people, and not only churchmen, found that hard to come to terms with, but the imaginative shift from a time-based to a timeless universe would be incomparably bigger.

But is Barbour right? This is a mainly technical question for physicists and cosmologists, but he does suggest some ways in which the theory can be tested; in other words, it is intended to be physics, not metaphysics. Nevertheless, profound metaphysical

questions are inevitably raised. Does free will exist? Is there room for a Creator? Where is Heaven (and Hell)? Is time travel possible? Doesn't the denial of motion and change take all the joy out of life? Some of these are old chestnuts, of course, but they would need to be radically re-evaluated if Barbour's theory were to become widely accepted. And, of course, the field is open for anyone who wants to have a go; Barbour merely opens the way for us to think about the implications. For himself, he finds that his ideas, and those of Lee Smolin (who wrote "The Life of the Cosmos"), tend towards pantheism. "The whole universe ... is the closest we can get to a God."

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Table of Contents

From Here to Eternity

Imagine a universe with no past or future, where time is an illusion and everyone is immortal. Welcome to that world, says physicist Julian Barbour

By Tim Folger

Time seems to stand still in south newington, a secluded village ringed by rolling green hills about 20 miles north of Oxford, England. The 1,000-year-old baptismal font in the town's church, the thatch-roofed houses, and the tidy gardens along narrow lanes all appear unchanged by the passage of centuries. Standing on the roof of the church's bell tower on a warm, late-summer day, Julian Barbour, a theoretical physicist with some extraordinary notions about the nature of time, points to his home, known as College Farm, which borders the ancient church.

"It looks almost exactly as it did when it was built 340 years ago," says Barbour. "The barn is also from the 17th century. Virtually all the houses you see around are from about 1640 to 1720. The long, low house is the one I grew up in. That's my parents' house. It dates from about 1710 to 1720." The entire scene is so placid one can't help but imagine that Barbour's childhood home, as well as the village and the surrounding landscape, will remain unchanged for the next 340 years.

Such utter quiescence suits Barbour, who is convinced the static harmony of South Newington extends past the horizon to the universe at large. In his view, this moment and all it holds— Barbour himself, his American visitor, Earth, and everything beyond to the most distant galaxies— will never change. There is no past and no future. Indeed, time and motion are nothing more than illusions. In Barbour's universe, every moment of every individual's life— birth, death, and everything in between— exists forever. "Each instant we live," Barbour says, "is, in essence, eternal." That means each and every one of us is immortal. Like the perpetually unmoving lovers in Keats's "Ode on a Grecian Urn," we are "for ever panting, and for ever young." We are also for ever aged and decrepit, on our deathbeds, in the dentist's chair, at Thanksgivings with our in-laws, and reading these words.

Barbour fully realizes how outrageous the notion of a world without time sounds. "I still have trouble accepting it," he says. But then, common sense has never been a reliable guide to understanding the universe— physicists have been confounding our perceptions since Copernicus first suggested that the sun does not revolve around Earth. After all, we don't feel the slightest movement as the spinning Earth hurtles through the void at some 67,000 miles per hour. Our sense of the passage of time, Barbour argues, is just as wrongheaded as the credo of the Flat Earth Society.

Barbour has been preoccupied with studying the basic properties of time for four decades. It's an issue he believes most theoretical physicists have ignored. "Given what a fascinating thing time is, it's surprising how few

physicists have made a serious attempt to study time and say exactly what it is," he says. "It's an unusual gap." At the outset Barbour didn't think he would have any fresh insights he could bring to the topic. "I don't regard myself as being at all talented. I struggle to do equations," he says, laughing. "But I just got very interested in the subject and found that very few people have really thought seriously about it."

Perhaps Barbour himself wouldn't have been able to devote nearly 40 years of his, well, time to the problem if it hadn't been for his unique background. Unlike most of his colleagues, he doesn't work at a university or a government lab— he is one of the world's few freelance theoretical physicists. Nevertheless, his credentials are solid, and prominent physicists take him— and his unconventional ideas— quite seriously.

"He has some wild ideas, but he definitely knows what he's talking about when it comes to these fundamental issues," says Carlo Rovelli, who works at the Center for Theoretical Physics in Luminy, France. Lee Smolin, a theoretical physicist at Pennsylvania State University, agrees: "Barbour is one of the few people I know who went out on their own and succeeded in doing several things that were important and would not have been easy to do in a conventional career."

After receiving his doctorate in physics from the University of Cologne in 1968, Barbour, who is now 63, decided he didn't want to follow a traditional academic career, with the inevitable pressure to publish or perish. So he supported his wife and four children by translating Russian scientific articles and worked on physics on the side, publishing scholarly papers every few years. Outside academia, he was free to explore his interest in time without worrying about tenure or funding for what might seem an arcane pursuit.

Until recently, Barbour's provocative work was little known beyond a rarefied circle of physicists. That changed earlier this year with the publication of his latest book, *The End of Time*, in which he presents his case for a universe where time, despite all appearances to the contrary, plays no role.

Barbour's central argument is that a mistaken belief in the reality of time prevents physicists from achieving their ultimate goal: the unification of the submicroscopic atomic world of quantum mechanics with the vast cosmic one of general relativity. The problem arises because each theory provides a radically different conception of time, and physicists simply don't know how to reconcile the two views. Until they do, they will never have one seamless theory of the universe comprising the very smallest objects to the very largest. And certain middling-sized objects— human beings— will never understand the true nature of time and existence.

What makes the two versions of time so different? Time in the quantum realm has no remarkable properties at all. In theories of quantum mechanics, time is essentially taken for granted; it simply regularly ticks away in the background, just as it does in our own lives. Like a clock at a sporting event, it provides an invisible framework in which events unfold. That's not the case in Einstein's general theory of relativity.

To describe the universe on the largest scale, Einstein had to weave time and space together into the very fabric of the universe. As a result, in general relativity, there is no invisible framework, no clock ticking outside the universe against which to measure events. How could there be? Time and space joined together have weird consequences: Space and time curve around stars and other massive bodies and make light bend away from straight-line paths. Near black holes, time seems to slow down or even come to a full stop.

Barbour is not alone in recognizing that the pictures of time in general relativity and quantum mechanics are fundamentally incompatible. Theoretical physicists around the world, spurred by Nobel dreams, sweat over the problem. But Barbour has taken perhaps the most unorthodox approach by proposing that the

way to solve the conundrum is to leave time out of the equations that describe the universe entirely. He has been obsessed with this solution for more than 10 years, since he learned of a vexing mathematical tour de force by a young American physicist named Bryce DeWitt.

DeWitt, with the help of the eminent American physicist John Wheeler, developed an equation in 1967 that apparently melded quantum mechanics with general relativity. He did this by taking the principles from quantum mechanics that describe the interactions of atoms and molecules and applying them to the entire universe, a mind-bending feat not unlike trying to make a jockey's suit fit Michael Jordan.

Specifically, DeWitt hijacked the Schrödinger equation, named for the great Austrian physicist who created it. In its original form, the equation reveals how the arrangement of electrons determines the geometrical shapes of atoms and molecules. As modified by DeWitt, the equation describes different possible shapes for the entire universe and the position of everything in it. The key difference between Schrödinger's quantum and DeWitt's cosmic version of the equation— besides the scale of the things involved— is that atoms, over time, can interact with other atoms and change their energies. But the universe has nothing to interact with except itself and has only a fixed total energy. Because the energy of the universe doesn't change with time, the easiest of the many ways to solve what has become known as the Wheeler-DeWitt equation is to eliminate time.

Most physicists balk at that solution, believing it couldn't possibly describe the real universe. But a number of respected theorists, Barbour and Stephen Hawking among them, take DeWitt's work seriously. Barbour sees it as the best path to a real theory of everything, even with its staggering implication that we live in a universe without time, motion, or change of any kind.

Strolling in the meadows of Oxford's Christ Church College with Julian Barbour, time and motion seem undeniable. Towering cumulus clouds float overhead, ferried by a gentle breeze. Children run and shout in the same field where Alice Liddell, the girl who inspired Lewis Carroll's Alice's Adventures in Wonderland, often played. How can there be no time, no movement? Barbour settles his tall, lean frame into the grass, readying himself for a long explanation to yet another skeptic. He begins with what seems a most straightforward proposition: Time is nothing but a measure of the changing positions of objects. A pendulum swings, the hands on a clock advance. Objects— and their positions— he argues, are therefore more fundamental than time. The universe at any given instant simply consists of many different objects in many different positions.

That sounds reasonable, as it should, coming from a thoughtful gentleman like Barbour. But the next part of his argument— the crux of his view— is much harder to swallow: Every possible configuration of the universe, past, present, and future, exists separately and eternally. We don't live in a single universe that passes through time. Instead, we— or many slightly different versions of ourselves— simultaneously inhabit a multitude of static, everlasting tableaux that include everything in the universe at any given moment. Barbour calls each of these possible still-life configurations a "Now." Every Now is a complete, self-contained, timeless, unchanging universe. We mistakenly perceive the Nows as fleeting, when in fact each one persists forever. Because the word universe seems too small to encompass all possible Nows, Barbour coined a new word for it: Platonian. The name honors the ancient Greek philosopher who argued that reality is composed of eternal and changeless forms, even though the physical world we perceive through our senses appears to be in constant flux.

Before allowing himself to be interrupted by the stream of questions he knows will come, Barbour continues to press his point. He likens his view of reality to a

strip of movie film. Each frame captures one possible Now, which may include blades of grass, clouds in a blue sky, Julian Barbour, a baffled Discover writer, and distant galaxies. But nothing moves or changes in any one frame. And the frames— the past and future— don't disappear after they pass in front of the lens.

"This corresponds to the way you remember highlights of your life," Barbour says. "You remember very vividly certain scenes as snapshots. I remember once, very tragically, I had to go to a man who had shot himself. And I still have no difficulty in recalling the scene of opening the door just to where he was at the foot of the stairs and seeing him there with the gun and the blood. It's still imprinted as a photograph on my mind. Many other memories I have take that form. People have strong visual memories. If it's not just a snapshot, it might be a few stills of a movie you recall. Think of perhaps your most vivid memories. You don't think of them as just lasting a second. You see them as snapshots in your mind's eye, don't you? They don't fade— they don't seem to have any duration. They're just there, like the pages of a book. You wouldn't ask how many seconds a page lasts. It doesn't last a millisecond, or a second; it just is." Barbour calmly awaits the inevitable sputtering objections.

Don't we then somehow shift from one "frame" to another?

No. There is no movement from one static arrangement of the universe to the next. Some configurations of the universe simply contain little patches of consciousness— people— with memories of what they call a past that are built into the Now. The illusion of motion occurs because many slightly different versions of us— none of which move at all— simultaneously inhabit universes with slightly different arrangements of matter. Each version of us sees a different frame— a unique, motionless, eternal Now. "My position is that we are never the same in any two instants," Barbour says. "Obviously, as macroscopic human beings, we don't change much from second to second. And there's no question that we're the same people. I mean only an extreme madman would deny that," he says reassuringly. "To that extent, it's true that we do move from one Now to another. But in what sense can you say we're moving? The way I see it, not exactly the same information content, but nearly the same information content, is present in many different Nows." Nothing really moves, he says.

"The information content or the consciousness that makes us aware of being ourselves, of having a certain identity, is just present in many different Nows. There are two things that distinguish my position from what people might just intuitively think. First of all, the Nows are not on one timeline. They're just there. And second, there is nothing corresponding to motion. I'm taking a very radical position on that. I'm saying the Nows are really like snapshots. The impression of motion only arises because the snapshots have got an extraordinarily special structure." We are part of that special structure.

For all the apparent complexity of his scheme, Barbour believes that it provides the simplest way to merge quantum mechanics and relativity into a single theory of the universe. Like all physicists, he strongly believes that mathematically elegant explanations tend to be true, even if they conflict with common sense. "I think the approach I'm proposing does deserve to be taken seriously," he says. "It would be extremely rash and stupid to say it's definitely right, but there's an inner logic to these ideas. They're very natural. If we want to put quantum mechanics and general relativity together, what is the simplest way that could be done? I believe it is the way I've proposed. And I believe it is essentially the way that Bryce DeWitt discovered in 1967 when he found his infamous equation."

Barbour stands and brushes some grass from his pants. He has to meet his wife, Verena, for dinner and looks at his watch, grinning as he does so. "This is

what comes of saying there is no time—I have to pull my own leg sometimes," he says.

Walking to a fashionable new restaurant on Oxford's old High Street, Barbour talks about how his ideas have changed his perceptions of the world. "I think it's completely wrong to say that the world was created in the Big Bang and that it was the unique creation event." Barbour hastens to add that there exists an eternal Now that contains the Big Bang, but he sees it as just one of an infinite array of Nows existing alongside this instant on High Street. "Immortality is all around us," he says. "Our task is to recognize it."

How does the physics community react to such ideas? Physicists who know Barbour's work agree that it shouldn't be dismissed out of hand. At a physics conference in Spain, Barbour conducted an informal poll. He asked how many of the physicists believed that time would not be a part of a final, complete description of the universe. A majority were inclined to agree.

Don Page, a cosmologist at the University of Alberta in Edmonton who frequently collaborates with Stephen Hawking, raised his hand that day. "I think Julian's work clears up a lot of misconceptions," says Page. "Physicists might not need time as much as we might have thought before. He is really questioning the basic nature of time, its nonexistence. You can't make technical advances if you're stuck in a conceptual muddle." Strangely enough, Page feels that Barbour might actually be too conservative. When physicists finally iron out a new theory of the universe, Page suspects that time won't be the only casualty. "I think space will go too," he says cryptically.

Like Page, Carlo Rovelli applauds Barbour for forcing physicists to think about things they may have taken for granted. "It's time to go back to the big questions," he says. "We need a new way to think about the world. There are major philosophical challenges, and Julian is a part of that." Barbour, meanwhile, is still developing his theory. With Niall Ó Murchadha, an Irish physicist, he is attempting to formulate a modification of general relativity in which not only time but also distance plays no role. In particular, his theory would predict that the universe, being static, is not expanding. The main evidence that physicists have for the expansion—the pervasive stretching of the spectra of light from distant galaxies known as the cosmic redshift—would instead be explained by the gravitational effects of neutron stars and black holes.

"If you want the wildly optimistic scenario," he says, "in which the Irishman and I develop this theory, make this prediction, and it turns out to agree with observations, then we would really be in the big time."

The parish church next to Barbour's home contains some of the rarest murals in England. One painting, completed in about 1340, shows the murder of Thomas à Becket, the 12th-century archbishop whose beliefs clashed with those of King Henry II. The mural captures the instant when a knight's sword cleaves Becket's skull. Blood spurts from the gash. If Barbour's theory is correct, then the moment of Becket's martyrdom still exists as an eternal Now in some configuration of the universe, as do our own deaths. But in Barbour's cosmos, the hour of our death is not an end; it is but one of the numberless components of an inconceivably vast, frozen structure. All the experiences we've ever had and ever will have lie forever fixed, set like crystalline facets in some infinite, immortal jewel. Our friends, our parents, our children, are always there. In many ways it's a beautiful and comforting vision. But the question still nags: Could it possibly be true? Only time will tell.

Is There Life After Death?

Julian Barbour is convinced we are all immortal. Unfortunately, in a timeless universe immortality does not come with the same kind of perks that it does on Mount Olympus. In Barbour's vision, we are not like Greek gods who remain forever young. We still have to buy life insurance, and we will certainly seem to age and die. And instead of life after death, there is life alongside death. "We're

always locked within one Now," Barbour says. We do not pass through time. Instead, each new instant is an entirely different universe. In all of these universes, nothing ever moves or ages, since time is not present in any of them. One universe might contain you as a baby staring at your mother's face. In that universe you will never move from that one, still scene. In yet another universe, you'll be forever just one breath away from death. All of those universes, and infinitely many more, exist permanently, side by side, in a cosmos of unimaginable size and variety. So there is not one immortal you, but many: the toddler, the cool dude, the codger. The tragedy— or perhaps it's a blessing— is that no one version recognizes its own immortality. Would you really want to be 14 for eternity, waiting for your civics class to end? As odd as this vision of a timeless world might seem, Barbour believes there is something stranger still to ponder: the very fact of our existence. "Creation and the fact that anything is— this for me is the complete mystery," he says. "The fact that we are here is totally mysterious."

— T.F.

1st Law and Newtonian space and time.

One of the most important consequences of the First Law is that it defines what we mean by an inertial frame of reference.

An inertial reference frame is a reference frame where isolated bodies are seen to move in straight lines at constant velocity.

An observer at rest with respect to an inertial frame of reference is called an inertial observer. The laws of physics devised by

Newton take a particularly simple form when expressed in terms of quantities measured by an inertial observer (such as positions,

velocities, etc.). For example, an inertial observer will find that a body on which no forces act moves in a straight line at constant

speed or is at rest.

All motion occurs in space and is measured by time. In Newton's model both space and time are unaffected by the presence or

absence of objects. That is space and time are absolute, an arena where the play of Nature unfolds. In Newton's words,

Absolute space in its own nature, without relation to anything external, remains always similar and immovable.

...absolute and mathematical time, of itself, and from its own nature, flows equally without relation to anything external,

and by another name is called duration.

Space and time were taken to be featureless objects which served as a universal and preferred reference frame (see Fig. 4.9 for

an illustration). A consequence of this is that a given distance will be agreed upon by any two observers at rest with respect to

each other or in uniform relative motion, for, after all, they are just measuring the separation between two immovable points in

eternal space. In the same way a time interval will be agreed upon by any two observers for they are just marking two notches on

eternal time.

Figure 4.9: Illustration of Newton's concept of space. The grids represent space which are unaffected by the presence and properties of the objects in it.

Newton's assumptions about space and time are the foundation of his theory of Nature and were accepted due to the enormous

successes of the predictions. Eventually, however, experimental results appeared which disagreed with the predictions derived

from Newton's theory. These problems were traced to the fact that these basic assumptions are not accurate

descriptions of space and time (though they do represent a very good approximation): space and time are not absolute (Chaps. 6, 7) . The realization that Newton's theory required revisions came to a head at the beginning of the XXth century. In the two decades from 1905 to 1925 a completely new framework was constructed and has now replaced Newton's ideas. These theories comprise the special and general theories of relativity and quantum mechanics. Do we know that the current theories of space and time are the truth? The answer is no: we do know that the current theories explain all the data (including the one explained by Newton and more), but we cannot determine whether they represent the ultimate theories of Nature. In fact, we expect them not to be the last word as there are many unexplained questions; for example, why should the proton be precisely 1836.153 times heavier than the electron? Why should space have 3 and not 25 dimensions? etc.

But in the 17th century there was no inkling of these problems and very few scientist questioned Newton's hypothesis. In particular Newton constructed his mechanics to comply with Galilean relativity: an observer in uniform motion with respect to another cannot, without looking outside his laboratory, determine whether he is at rest or not. And even if he looks outside, he cannot decide whether he is in motion or the other observer is. In fact for two inertial observers moving relative to each other the question, ``which of us is moving?" is un-answerable and meaningless. The only thing to be said is that they have a certain relative velocity.

Traveling Through Time NOVA ONLINE
by Clifford Pickover

What is time? Is time travel possible? For centuries, these questions have intrigued mystics, philosophers, and scientists. Much of ancient Greek philosophy was concerned with understanding the concept of eternity, and the subject of time is central to all the world's religions and cultures. Can the flow of time be stopped? Certainly some mystics thought so. Angelus Silesius, a sixteenth-century philosopher and poet, thought the flow of time could be suspended by mental powers:

Time is of your own making;
its clock ticks in your head.

The moment you stop thought
time too stops dead.

The line between science and mysticism sometimes grows thin. Today physicists would agree that time is one of the strangest properties of our universe. In fact, there is a story circulating among scientists of an immigrant to America who has lost his watch. He walks up to a man on a New York street and asks, "Please, Sir, what is time?" The scientist replies, "I'm sorry, you'll have to ask a philosopher. I'm just a physicist."

Most cultures have a grammar with past and future tenses, and also demarcations like seconds and minutes, and yesterday and tomorrow. Yet we cannot say exactly what time is. Although the study of time became scientific during the time of Galileo and Newton, a comprehensive explanation was given only in this century by Einstein, who declared, in effect, time is simply what a clock reads. The clock can be the rotation of a planet, sand falling in an hourglass, a heartbeat, or vibrations of a cesium atom. A typical grandfather clock follows the simple Newtonian law that states that the velocity of a body not subject to external forces remains constant. This means that clock hands travel equal distances in equal times. While this kind of clock is useful for everyday life, modern science finds that time can be warped in various ways, like clay in the hands of a cosmic sculptor.

Science-fiction authors have had various uses for time machines, including dinosaur hunting, tourism, visits to one's ancestors, and animal collecting. Ever since the time of H.G. Wells' famous novel *The Time Machine* (1895), people have grown increasingly intrigued by the idea of traveling through time. (I was lucky enough to have chats with H.G. Wells' grandson, who told me that his grandfather's book has never been out of print, which is rare for a book a century old.) In the book, the protagonist uses a "black and polished brass" time machine to gain mechanical control over time as well as return to the present to bring back his story and assess the consequences of the present on the future. Wells was a graduate of the Imperial College of Science and Technology, and scientific language permeates his discussions. Many believe Wells' book to be the first story about a time machine, but seven years before 22-year-old Wells wrote the first version of *The Time Machine*, Edward Page Mitchell, an editor of the *New York Sun*, published "The Clock That Went Backward."

One of the earliest methods for fictional time travel didn't involve a machine; the main character in Washington Irving's "Rip van Winkle" (1819) simply fell asleep for decades. King Arthur's daughter Gweneth slept for 500 years under Merlin's spell. Ancient legends of time distortion are, in fact, quite common. One of the most poetic descriptions of time travel occurs in a popular medieval legend describing a monk entranced for a minute by the song of a magical bird. When the bird stops singing, the monk discovers that several hundred years have passed. Another example is the Moslem legend of Muhammad carried by a mare into heaven. After a long visit, the prophet returns to Earth just in time to catch a jar of water the horse had kicked over before starting its ascent.

Time travel is possible

Today, we know that time travel need not be confined to myths, science fiction, Hollywood movies, or even speculation by theoretical physicists. Time travel is possible. For example, an object traveling at high speeds ages more slowly than a stationary object. This means that if you were to travel into outer space and return, moving close to light speed, you could travel thousands of years into the Earth's future.

Newton's most important contribution to science was his mathematical definition of how motion changes with time. He showed that the force causing apples to fall is the same force that drives planetary motions and produces tides. However, Newton was puzzled by the fact that gravity seemed to operate instantaneously at a distance. He admitted he could only describe it without understanding how it worked. Not until Einstein's general theory of relativity was gravity changed from a "force" to the movement of matter along the shortest space in a curved spacetime. The Sun bends spacetime, and spacetime tells planets how to move. For Newton, both space and time were absolute. Space was a fixed, infinite, unmoving metric against which absolute motions could be measured. Newton also believed the universe was pervaded by a single absolute time that could be symbolized by an imaginary clock off somewhere in space. Einstein changed all this with his relativity theories, and once wrote, "Newton, forgive me."

Einstein's first major contribution to the study of time occurred when he revolutionized physics with his "special theory of relativity" by showing how time changes with motion. Today, scientists do not see problems of time or motion as "absolute" with a single correct answer. Because time is relative to the speed one is traveling at, there can never be a clock at the center of the universe to which everyone can set their watches. Your entire life is the blink of an eye to an alien traveling close to the speed of light. Today, Newtonian mechanics have become a special case within Einstein's theory of relativity. Einstein's relativity will eventually become a subset of a new science more comprehensive in its description of the fabric of our universe. (The word "relativity" derives from the fact that the appearance of the world depends on our state of motion; it is "relative.")

We are a moment in astronomic time, a transient guest of the Earth. Our wet, wrinkled brains do not allow us to comprehend many mysteries of time and space. Our brains evolved to make us run from saber-toothed cats on the American savanna, to hunt deer, and to efficiently scavenge from the kills of large carnivores. Despite our mental limitations, we have come remarkably far. We have managed to pull back the cosmic curtains a crack to let in the light. Questions raised by physicists, from Newton to Kurt Gödel to Einstein to Stephen Hawking, are among the most profound we can ask. Is time real? Does it flow in one direction only? Does it have a beginning or an end? What is eternity? None of these questions can be answered to scientists' satisfaction. Yet the mere asking of these questions stretches our minds, and the continual search for answers provides useful insights along the way.

Exactly what is it that we are measuring?

In his book "Companion to the Cosmos" John Gribbin states that everybody knows what time is, but nobody can explain what it is, and that in physics, the important thing about time is that it provides a reference system (a set of coordinates) in which events can be ordered. One event comes before or after another in this system. He goes on to say that it is important that, although this defines an arrow of time, there is no suggestion anywhere in the laws of physics that time actually flows from the past through the present and into the future. An interesting point that Gribbin goes on to make is that all times have equal status and that this shows up most forcefully in Einstein's Special Theory of Relativity where time is regarded as a fourth dimension, on an equal footing with the familiar three dimensions of space. He says that you can imagine all of space and time represented as a four dimensional spacetime map, on which all of history, the present and the future of the universe can be represented.

If Einstein's Special Theory of relativity is right, then according to Gribbin this raises interesting questions about the nature of destiny and freewill - is the future 'already there' in some sense, just waiting for our consciousness to move over it? But Gribbin goes on to say that the uncertainty inherent in Quantum Mechanics suggests that a better theory of space and time, merging relativity and quantum theory, may restore the vagueness of the future to the description of spacetime.

So did that help at all? Do you now have a feeling for what time actually is? Test your knowledge and answer me this. When does the present become the past and the future become the present? If I mention the word 'future' you think of some distant event, maybe next year, next week, tomorrow, an hour from now. How about a minute from now? that is still obviously the future, and a second from now? well yes, it is still in the 'future'. A thousandth of a second, a millionth of a second? A what precise time interval does the future merge into the present and for how long before it merges into the past? Does time unfold in a smooth continuous flow or in small discreet steps? With the absence of time is the concept of 'always' possible? How long does the present last and precisely what does 'now' mean?

It would appear to be impossible to define 'now' as a precise moment in time that could be used as a universal standard. It seems to be a personal experience as perceived by the individual, our own unique frame of reference. In this sense time would appear to be a unique event to every observer, and this is indeed in agreement with relativity. Even the speed at which time passes is individual to the observer depending on their speed and on the strength of any gravitational field they may happen to be in. The future to is also unique to the observer depending on when the individual enters the future light cone of an event. (See Stephen Hawking's 'A Brief History

of Time) So time appears to us to be something that we all experience differently and not as some sort of universal standard. In this sense then, time is not something real, but only something that we experience, in the same way that we can experience pain although pain itself only exists in our minds and not in the 'real' world. In other words, time is dependent on our consciousness. Would then, for example, the universe continue to expand and evolve if it did not contain sentient beings that could observe it? (I think that this question has the same merit as asking - if a tree fell down in the forest and there was nobody there to hear it, would it make a noise?) The answer would be it doesn't matter, it would be meaningless to ask! If there were no sentient beings in the universe, the question could not be raised!</P><P>If we look at time from the opposite view point we can consider the implications of time not existing. The only condition that I can imagine for time not existing is in an infinite eternal nothing as described in the previous page. In this context the concept of 'always' is a fundamental requirement of the very existence of nothing. If the universe does indeed exist in nothing it must always exist in nothing, without a past, present or future because these terms could not exist. See Where did the universe come from? This would suggest that 'always' requires the absence of time.</P>

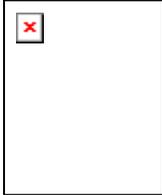
<P>An interesting observation regarding time as being relative is that individually we have no way of determining the rate at which time is passing. An astronaut travelling at near light speed would not be able to detect that time had slowed down, it would only be apparent on his return to base when he compares his clock with the base clock and observes a difference. While traveling at near light speed our astronaut has no means of detecting that time has slowed down, everything would appear to be perfectly normal aboard his space craft. (A look out of the window would reveal that something was amiss, but our astronaut could not prove if it is him that is moving or the objects passing by!) A recent television program demonstrated the relationship of movement and time to good effect by setting two atomic clocks to show the same time to within a very accurate degree. One of the clocks was sent by 'plane from London to Tokyo and back while the other remained in the studio. The two clocks were compared on return and the clock that had remained in the studio was shown to be running slightly ahead. What does this simple experiment tell us? It tells us that the effect is real, time really does run slower for a moving object, it isn't just in our heads, clocks are not sentient!</P>

<P>So is the effect of time running at different speeds a 'real ' effect irrespective of whether or not it is being measured? No. We do not know what time is doing when we are not measuring it. We would be making foolish assumptions if we assumed that time always behaved the same way regardless of whether or not it was being observed. We do not know! It is the same as the behaviour of electrons in Quantum Mechanics, we do not know what they are doing when we are not observing them. We can only know what is taken place while we are observing.</P>

<P>So is time 'real'?</P>

<P>I dislike the idea that the future may be 'already there' just waiting for us to pass over it, for as John Gribbin states, where does that leave destiny and freewill? See Do we have free will? If on the other hand the future is not already there, then where does that leave the special theory of relativity ? If time is 'real' in the same way that the other three dimensions are real, this would indicate that it does exist and is there waiting for our consciousness 'to move over it'. How much flexibility that allows for the future I do not know, but can only hope that the uncertainty in quantum theory allows us a free choice of actions.</P>

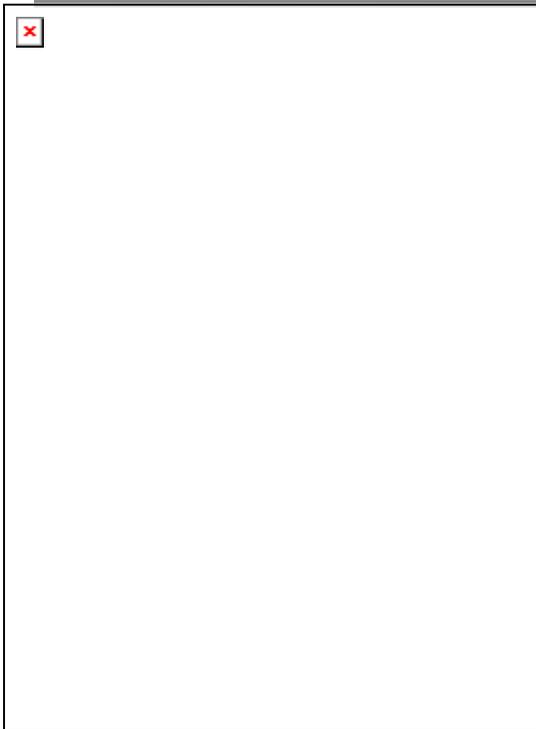
<P>I think that time is the biggest mystery of them all, and that it is somehow tied into and dependent upon our consciousness.</P>
<P>Not much of an answer is it? But how do you explain something that is so apparent to us and so completely necessary to our every experience in life, yet has no form? It is as though it exists only in our minds even though its effects are perceived to be everywhere throughout the universe.</P>



SYNERGETIC QABALA:

A Re-Visioning of the Geometric Matrix of Reality

by Iona Miller, c1999



"Omnidirectional Halo"

Whoever reflects on four things, it were better he had never been born: that which is above, that which is below, that which is before, and that which is after.

--Talmud, Hagigah 2.1

ABSTRACT: Quantum cosmology attempts to describe how the universe emanated from the void. Kant said space and time are the necessary categories of thought. Einstein taught us to think in terms of an interwoven spacetime. We comprehend our experience in terms of space-time geometry. A dynamical geometry, the psychophysical twelve-dimensional matrix, informs our very being. Consciousness-researcher David Chalmers suggests that perhaps the universe exists in terms of psychophysical laws, and that consciousness may involve both an information state and experiential state.

The maximum number of dimensions allowed to a symmetrically-divided sphere is twelve. The 12-dimensional model appears to offer a psychophysical solution to consciousness, quantum gravity, the origins of life, and the birth of the universe--the traditional subject matter of Qabala. We demonstrate that Kether is in Malkuth--information has both a physical and experiential aspect. The Right and Left Pillars of the Tree correspond to Right (spatial/behavioral) and Left Hemispheric (temporal/psychophysical) functioning.

INTRODUCTION

*Rabbi Rahumai said: What is the meaning of the verse (Proverbs 6:23),
"And the way of life is the rebuke of admonition"?*

This teaches us that when a person accustoms himself to the study of the Mystery of Creation and the Mystery of the Chariot, it is impossible that he not stumble. It is therefore written (Isaiah 3:6), "Let this stumbling be under your hand." This refers to things that a person cannot understand unless they cause him to stumble.

The Torah calls it "the rebuke of admonition," but actually it makes one worthy of "the way of life." One who wishes to be worthy of "the way of life" must therefore endure "the rebuke of admonition."

--Kaplan, *The Bahir*

ORIGINS OF THE GEOMETRICAL MODEL:

An examination of the prehistory of religious ideas begins with the conception of surrounding space. When humans began to walk erect they transcended the typical condition of primates. It is because of our vertical posture that we organize space into four horizontal directions radiating from an "up/down" central axis. We automatically organize the space around our bodies as extending forward, backward, to right, left, upward and downward.

Thus we orient ourselves to the apparently limitless, unknown and threatening extension. We need a method of orientation because it is impossible to survive long

in the vertigo brought on by disorientation. Our experience of space is primarily oriented around a "center" and explains the importance of paradigmatic divisions of our experiential field.

This model of experiential space is projected into mythical, celestial space as the cosmogony. The very theory of celestial models continues and develops the universally disseminated archaic conception that man's acts are only the repetition (imitation) of acts revealed by divine beings. The divine modality is defined by the powers and "transcendence" of space. Precosmogonic chaos can be conceptually ordered, and this is an archetypally divine act. The numinous character of divinity increases by becoming brighter. Light is considered the particular attribute of divinity, Initial Perfection.

In Paleolithic times, familiarity with different modalities of matter gave rise to imaginative activity. The first signs of ancient religious sense came from burial rites. Early inventions, such as primitive tools and domestic skills gave rise to imaginative analogies. Through activities such as sewing, shaping statuettes, and making hunting tools objects came to be laden with symbolism. The imaginary world was created and enriched by intimacy with matter.

This imaginary realm was inadequately grasped in figurative and geometric creations of various prehistoric cultures. This imaginative experience is still accessible to us. There is a continuity to this plane of imaginative activity which permeates throughout human history and spiritual notions. The imaginal activity of the ancients had a mythological dimension. Many of the supernatural figures and mythological events which appear in later religious traditions, were probably discoveries of the Stone Age. For millennia Mother Earth gave birth by herself, through parthenogenesis. Born from the Earth, man returned there when he died.

The development of agrarian cultures ushered in notions of circular time and cosmic cycles. The confrontation between two cosmogonic principles, time and space, meant a new orientation to both inner and outer life. A settled existence organizes the "world" differently from a nomadic life. The seed "dies" and is then reborn in order to multiply. Thus death ensures a new birth. Agriculture demands a different relationship to the seasons and weather--to earth and sky, and this had a deep impact on religious values. The theme is one of periodic renewal.

"For religious creativity was stimulated, not by the empirical phenomenon of agriculture, but by the mystery of birth, death, and rebirth identified in the rhythm of vegetation. In order to be understood, accepted, and mastered, the crises that threaten the harvest (floods, draughts, etc.) will be translated into mythological dramas. These mythologies and the ritual scenarios that depend on them will dominate the religions of the Near East for millennia. The mythical theme of gods who die and return to life is among the most important."

"...The agrarian cultures develop what may be called a cosmic religion, since religious activity is concentrated around the central mystery: the periodical renewal of the world. Like human existence, the cosmic rhythms are expressed in terms drawn from vegetable life. The mystery of cosmic sacrality is symbolized in the World Tree. The universe is conceived as an organism that must be renewed periodically--in other words, each year. 'Absolute reality,' rejuvenation, immortality are accessible to certain privileged persons through the power residing in a certain fruit or in a spring near a tree. The Cosmic Tree is held to be at the center of the world, and it unites the three cosmic regions, for it sends its roots down into the underworld, and its top touches the sky."

"...The Cosmic Tree is the most widespread expression of the axis mundi; but the symbolism of the cosmic axis probably precedes--or is independent of--the agricultural civilizations, since it is found in certain arctic cultures." (Eliade, 1978).

The cosmic axis defines and reiterates the divine energy flow between Sky (Kether) and Earth (Malkuth). It reiterates our ancestral vertical posture on the cosmic level, drawing a polarized line between the celestial and terrestrial. When we are in sacred space, we become that cosmic axis, incarnate. It is a cross-cultural, universal model.

In the Hebrew adaptation of this cosmic Tree model, there are differences and similarities to the older cults of western Asia. Archaic ideas about the creation of the world were taken up and reiterated. Mesopotamian legends formed much of the raw material. However, the main distinction from the agricultural fertility cults was that the Hebrews did not worship the Earth or forces of nature. This represented a break from conventional religious forms and was the new basis for the clan's spiritual life and ethos.

But, they were unavoidably pre-conditioned by the dominant Mesopotamian culture. Living on the outskirts of this society they incorporated notions, such as a Law or code. The very idea of a code is Mesopotamian, and cannot be found in ancient Egypt.

The primary difference in orientation is shown by the fact that the Hebrew Tree of Life reverses the neolithic notion of an earth-rooted sacred Tree. The qabalistic Tree is rooted in Heaven, with its branches extending downward toward earthly manifestation. The emanation is from the formless limitless light into corporeality by means of geometric unfoldment, from pure energy converted into matter. But, the Mesopotamian influence is seen here as well.

Sumeria revered a triad of great gods, analogous to the Supernal Triad (1-2-3) of the Tree of Life; followed by a triad of planetary gods (4-5-6), followed by lesser gods. This cosmic rhythm is sustained in the qabalistic Tree. Like the fertility cults, the cosmic axis is conceived of as a relationship between a primordial couple (*Elohim*; God and *Shekinah*, or *Malkuth*, the Bride; the Right (masc.) and Left

(fem.) Pillars of the Tree). Their union is a *hieros gamos*, or sacred marriage which results in the manifestation of all things.

Qabala also incorporates the themes of circular and cosmic time, by valorizing the cycle of birth, death, and rebirth (initiation). This is the archaic idea of the periodic renewal of the world which resurfaces as ritual, magical exercises and disciplines. It is primarily for the agriculturalist that the "true world" or space in which he lives is the "center of the world." It is consecrated by rituals and prayers, and in that sacred space communication with divinity is effected.

Habitation of a sacred place led to the cosmological symbolism of sacred architecture. The Sumerians were the first to erect monumental temples, and to record myths of the quest for immortality. They invented notions about a 12-fold Zodiac, planetary astrology, magic and divination, spirits and demons, and later (from Babylon) angels. Akkadian religious thought also contributed the importance accorded to the personal element in religious experience. These were incorporated into Qabala in such ideas as the path of return, planetary spheres, spiritual hierarchy and demonology.

All this percolated down from the earliest neolithic cultures with their primal root-metaphors:

- Cults of the dead and of fertility, indicated by statuettes of goddesses, and of the storm god.
- Beliefs and rituals connected with the "mystery" of vegetation.
- Assimilation of the identity of woman/cultivated soil/plant, implying the homology birth/rebirth (initiation).
- Very probably the hope of a postexistence.
- A cosmology including the symbolism of a "center of the world" and inhabited space as an *imago mundi*.

This represents a cosmic cycle of chthonian fertility and life/death/postexistence. These root metaphors are powerful, and have persisted into modern times in our religions. Many of the primal notions were incorporated into the classic literature of written Kabbalah in the Middle Ages, particularly the *Sephir Yetzirah*, *the Bahir*, and *Zohar*, and the codification of the Tree of Life and Cube of Space or Throne-Chariot.

These qabalistic texts exhibit considerable variation. We can see that these spiritual ideas about orientation in space/time have evolved through the centuries. We have every reason to believe that our view will continue to evolve to a new understanding of the meaning of the Universe or cosmic existence (where we are), our existence (who we are), and post-mortum continuation (where we are going).

Throughout most of the history of Kabbalah, the Tree of Life wasn't standardized or very geometrical. The emanations were contemplated in a variety of forms. The geometrically regular triplet array came much later. Path positions and attributions differed markedly, and there are several arrays of the emanations devised for various purposes. Even prior to formalization of the Tree of Life, the visionary experience of the Throne Chariot was pursued as "the Work of the Chariot."

This work, or *Merkavah* mysticism is the meditative branch of Qabala. But when it came to this central image, or template of divinity, there was much discussion in the evolving esoteric tradition over the pattern of the Chariot of Light. Unlike the Sephiroth which are not spatial, but qualities of Nothingness, the Chariot is a template or spiritual projection--a form and state which arises during mystical meditation. Both its rewards and the extreme dangers of this practice by the impure are covered in the *Bahir*, *The Book of Illumination*, published in 1175. This is one of the oldest Kabbalistic texts, and contains the earliest discussion of the Sefirot and reincarnation.

This work emphasizes meditative techniques to allow seers to develop profound astral visions of "God's Throne" by themselves becoming "chariots" or vehicles to the divine. They used the Hebrew equivalent of mantras and mandalas to facilitate their practice. Since the Jews were in the Babylonian exile and their earthly Temple had been destroyed, perhaps it was an attempt to internalize sacred space--to worship in an inner Temple.

The origin of this meditative practice goes back to Ezekiel, and according to Kabbalah, his vision of the Chariot was in the Universe of Yetzirah, the astral realm of Formation. This is the level where it is said God "*fills all worlds.*" We look down into our own soul to see Him. Once again, the opposition to fertility cults is emphasized:

"Specifically characteristic of agriculturalists, cosmic religiosity continued the most elementary dialectic of the sacred, especially the belief that the divine is incarnated, or manifest itself, in cosmic objects and rhythms. Now such a belief was denounced by the adherents of Yahweh as the worst possible idolatry, and this ever since the the Israelites' entrance into Palestine. But never was cosmic

religiosity so savagely attacked. The prophets finally succeeded in emptying nature of any divine presence. Whole sectors of the natural world--the "high places," stones, springs, trees, certain crops, certain flowers--will be denounced as unclean because they were polluted by the cult of the Canaanite divinities of fertility. The preeminently clean and holy region is the desert alone, for it is there that Israel remained faithful to its God. The sacred dimension of vegetation and, in general, of the exuberant epiphanies of nature will be rediscovered only late, in medieval Judaism." (Eliade, 1978).

This total and violent rejection of cosmic religiosity and nature symbolism was apparently sublimated in the work of the Chariot, because as we now know, its geometry actually reflects the deepest secrets of nature and the cosmos in terms of the formation of all possible things, from the macrocosmic to microcosmic.

Religiosity graduated from the physical to the metaphysical realm, and became a "way of knowing." Metaphysical knowledge presumably gave man control of himself, instincts and actions, and permitted living a fully worthy life. Events no longer reflect the eternal rhythm of the cosmic cycle or depend on the stars, they develop in accordance with God's plan.

The advent of syncretism in the Hellenistic world brought exposure to Greek ideas. The Greeks tried to impose their way of life on the Jews. Both Arab and Jewish philosophers engaged in scholastic metaphysics which proposed that the universe must have had a beginning in time, hence a Creator God, which implies the unity of creation, and shows that the soul is of God. Truth is one. The acquiring of truth is a religious duty. Reason and revelation are complementary. Still, philosophy alone is not a religious enterprise. The goal of philosophy is right action.

A theology which equates God's law with order and stability in nature, is still mistaking the creation for the dynamic transcendent Creator, worshipping creation rather than Creator. Philosophy suggested that immortality was an achievement of the soul which has activated its full potential for knowing. This is perhaps the subtle mistake or stumbling of the Daath-level, over-intellectualizing, rather than obediently following the Lord's Will as the Bible dictates. True knowledge of things divine comes through love of God. Only love admits one to God's supernal mysteries.

One of the most original religious creations of the Hellenistic period is the personification of wisdom as the Shekinah. In Greek form, *Sophia* as a divine and personified entity appears comparatively late in the Hermetic writings. This feminine counterpart of God plays a major role in the metaphors of polar dynamics in the Tree of Life.

In *Proverbs*, Shekinah declares that Yahweh created her before the oldest of his works, that she was firmly set from the beginning, before earth came into being. This echoes the notion of a virtual state prior to and underlying physical manifestation, a virtual matrix of formation.. Wisdom emerged from the Lord's mouth. Among the realm of Jewish-inspired "intermediate beings" between man

and God, Shekinah was elevated to supreme authority, the mediatrix. She is divine immanence.

Intuitive perception of the subtleties of metaphysical reality has evolved as philosophies have shifted. The more we know about the empirical nature of phenomenal reality, the more our intuitive concepts come into harmonization with the nature of Reality. At the risk of error, "stumbling" and admonishment, we can conceive of a postmodern view of the Tree and the Throne-Chariot, with analogies to current physics theories. But this theory may be more than analogy or metaphor-it is the way things are, and therefore phenomenological. It unites psyche and matter in the alchemical *Unus Mundus*, or One World.

An evolving esoteric tradition allows us to course-correct symbolic, intuitive notions about the nature of reality. In this pursuit, we are not trying to improve or defile Qabala, but employ our spiritual sensitivity to engage in true speculation, or seeing in the sense of the seer. A medieval Kabbalist said, *"the philosophers can only surmise what exists in the metaphysical realm, while the Kabbalists can actually see it."*

Three events influenced the evolution of Kabbalah in the Middle Ages: the printing press; discovery of the New World; and the Spanish Inquisition. As Kabbalah began to be written down, there was a need for outlining its organizing principles, systematizing it in a philosophical structure. We can only deduce what is correct from the considerable variations of Qabala by the logical derivation of formulas and true vision, not allegory, or even metaphor. Truth is one.

Our modern model meets religious, psychological, and physical criteria for depicting this ancient core image with even more clarity, making it crystal clear. Theological flexibility is a qabalistic tradition. Theosophical speculation is primarily based on insight rather than systematics. Through it we weave reason and revelation into a seamless unity.

A RE-VISIONING OF THE COSMIC TREE

"537.131 Six Vectors for Every Point: The behavioral interpatterning frame of reference of the six degrees of freedom in respect to omnidirectionality is of course the vector equilibrium, which embraces the three-dimensionality of the cube and the six-dimensionality of the vector equilibrium. Experience is inherently omnidirectional; ergo, there is always a minimum of 12 "others" in respect to the nuclear observing self. The 24-positive and 24-negative vectored vector equilibrium demonstrates an initially frequenced, tertahedrally quantized unity of 20; ergo, the Universe as an aggregate of all humanity's apprehended and comprehended experiences, is at minimum a plurality of 24 vectors."

(R. Buckminster Fuller, 1979).

All events can be described mathematically in space time. According to Fuller there are six vectorial moves for every event. Each of the vectorial moves is reversible,

hence 12. Therefore, all positional differentials in the Universe derive only from the sixness of the 12 degrees of freedom.

The Tree of Life emerges from an unobservable or implicate geometrical matrix. This isotropic vector matrix is dynamically inter-tensioned. The dynamic interaction and tension among the Spheres of the Tree of Life functions synergetically. We can revision the old notion of static hierarchy; the synergetic state could be called "synarchy." Though the geometry of the Tree stays the same, our notion of its dynamics can take a quantum leap forward in conceptual terms. We can keep viewing the Tree in, at best, 19th century terms, or contemporize to 21st century paradigms.

Buckminster Fuller pointed out that ancient philosophical and scientific thought was based on the notion of the cube, rather than the tetrahedron, nature's most economical self-organizing base unit. This mistake of the Greek mathematicians has been perpetuated down through the ages, but we can correctly revision the matrix of reality with a few simple adjustments in our thinking. *The Synergetic Qabala* includes original graphics and paintings which help make these conceptual changes clearer.

Experiential phenomena, including mystical states, are inseparable from the physical universe, and are deeply connected with the laws which govern the physical universe. Buckminster Fuller advanced a single model to describe the shape of the physical universe, the shape of energy's behavior, the shape of our thinking, and the shape of the metaphysical or philosophical universe. He considered adoption of the cube in classical times as misguided and erroneous, since it has nothing to do with nature's own coordinates.

With the cube and the square the ancient Greek mathematicians entered the world of nature and Reality by the wrong door, rather than through Nature's Way which is in triangles and tetrahedra. Without meaning to be critical, the early Qabalists perpetuated this partial truth, in what we can term their "Cube-ala," with its primary geometries of the Tree of Life and Throne-Chariot or Cube of Space.



"THE CUBE OF SPACE"

by Iona Miller, c1982

Three dimensions can be modeled with perpendiculars in the cube. Four dimensions can be modeled with equiangularity in the tetrahedron. What the three axes of the cube do for three dimensions, the four axes of the tetrahedron do for four dimensions. The tetrahedron provides for the convergence and divergence of four centrally-coordinate planes. Fuller says it is erroneous to describe time as a fourth dimension; he says that *all dimensions require time*. Einstein (and later QM) demonstrated that time emanates from the observer. The tetrahedron is stability incarnate, a nest of principle.

In Qabala, the Spheres themselves are actually numbers, (Sephiroth means number) and in Fuller's geometric philosophy, there is a direct relationship between number and geometry. Fuller created the first explicit formulas for the area of a circle in triangular modules and for the volume of a sphere in tetrahedral modules--all without *pi*. In contrast to the classical XYZ coordinates, Fuller's three-way great circle grid, has 60-degree coordination and a tetrahedral matrix. This is nature's way, since there are no 90 degree angles in nature, no true perpendiculars.

We can retune or tune-in a clearer picture of the nature of the primal matrix, since we have made conceptual advances over the ancients. The reciprocal operation of the old alchemical notion of "*squaring the circle*" is to envision the old Cube of Space encompassed by its precipitating matrix, from which it emanates. an encircling Sphere. The 12-dimensional model defines not only 'top down' object-space, but also 'bottom up' self-time, with the potential for psyche/consciousness to exist in every particle in the psychophysical universe from the start.

German mathematician Georg F.B. Riemann proposed the hypersphere as a model of the cosmos. The so-called Riemann sphere is the three-dimensional surface of a four-dimensional ball, and presumes the hypersphere is not embedded in any higher-dimensional space. Einstein chose this shape as the hypothetical overall shape of the cosmos when he formulated his first relativity model. It models a finite space without a problematic boundary.

The null directions at a point (Vector Equilibrium) have the holomorphic structure of a Riemann sphere. This holomorphic structure is implied as lying "behind the scenes" in solutions of Einstein's (vacuum) equations. We can imagine a twelve-dimensional matrix mapped onto a Sphere, representing all possible modes of psychophysical space and time.

When all possible modes of space and time are mapped onto the Riemann sphere, we see an ascending 'ladder' of dimensions (where time manifests) and we also find six complementary pairs of opposites. Though they are superimposed, a 'top-down' view of this 'ladder' is the perspective of our Left Hemisphere consciousness ("the Observer"), while a 'bottom-up' view reflects the Right Hemisphere state of Being.

These superpositions constitute our experience of psychophysical reality. The top-down information state is our control structure, psyche or soul, with its complementary quantum superposition *soma*, the supply structure. In a sense, life is the experience of dynamic geometrical transformations. The apprehension of the geometric properties of a 'circle,'-- the 12 dimensional matrix--both intrinsically and extrinsically, are crucial for human higher-order consciousness. According to Burrow:

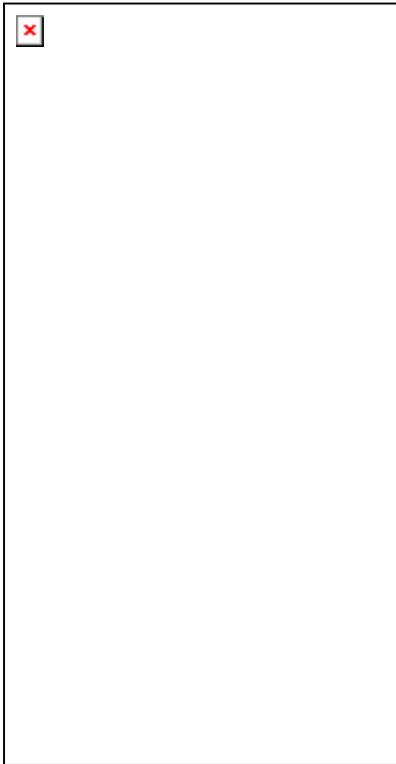
"...a sentient being could only sense that his or her universe was informed by a twelve-dimensional matrix, both at the extrinsic 'classical' macro- as well as quantum mechanical intrinsic level, once he/she had ascended beyond the 'circle's' half-way point, i.e. as represented specifically by the seventh-dimension. This extrinsic/intrinsic apprehension of being in the presence of a circle/sphere is best illustrated by Pythagoras' derivation of all numbers from the geometric properties of a circle. 'Mathematical Platonism', too--the notion that numbers are not 'real' and that mathematical concepts exist in a timeless, ethereal realm--derives from this same experientially apprehended 'geometric source.'"

The invisible (or implicate) presence of the self-organizing 12-dimensional template at the quantum level is the virtual substrate of classical structure and vice versa. It yields six pairs of complementary psychophysical dimensions of space and time and space-time. This psychophysical model demonstrates a synthesis between physics and psychology. See "A Psychophysical Theory of Everything: Consciousness Beyond Complementarity," by Barron Burrow. <http://www.maximus.dircon.co.uk/>

It is a model for transcendence or experience of holistic "no time," and nonlocality in the 11th dimension (*Daath*). By definition, experiential phenomena must have a qualitative apprehension of, and relationship to, time. Due to the principles of synecdoche and self-similarity, we share the same 'arrow of time' with the psychophysical universe.

'Top down' consciousness of an external object actually alternates with 'bottom up,' behavioral superposition or *identification with* this same object. The 'magic' of this model is that it makes a synthesis between physics, psychology, and philosophy. It is metapsychological. A true Theory of Everything must be a synthesis of psychology, science and religion: consilience.

**SYNERGETIC QABALA:
VARIATIONS ON THE COSMIC AXIS,
TREE of LIFE, DOUBLE CUBE,
& CUBE OF SPACE**



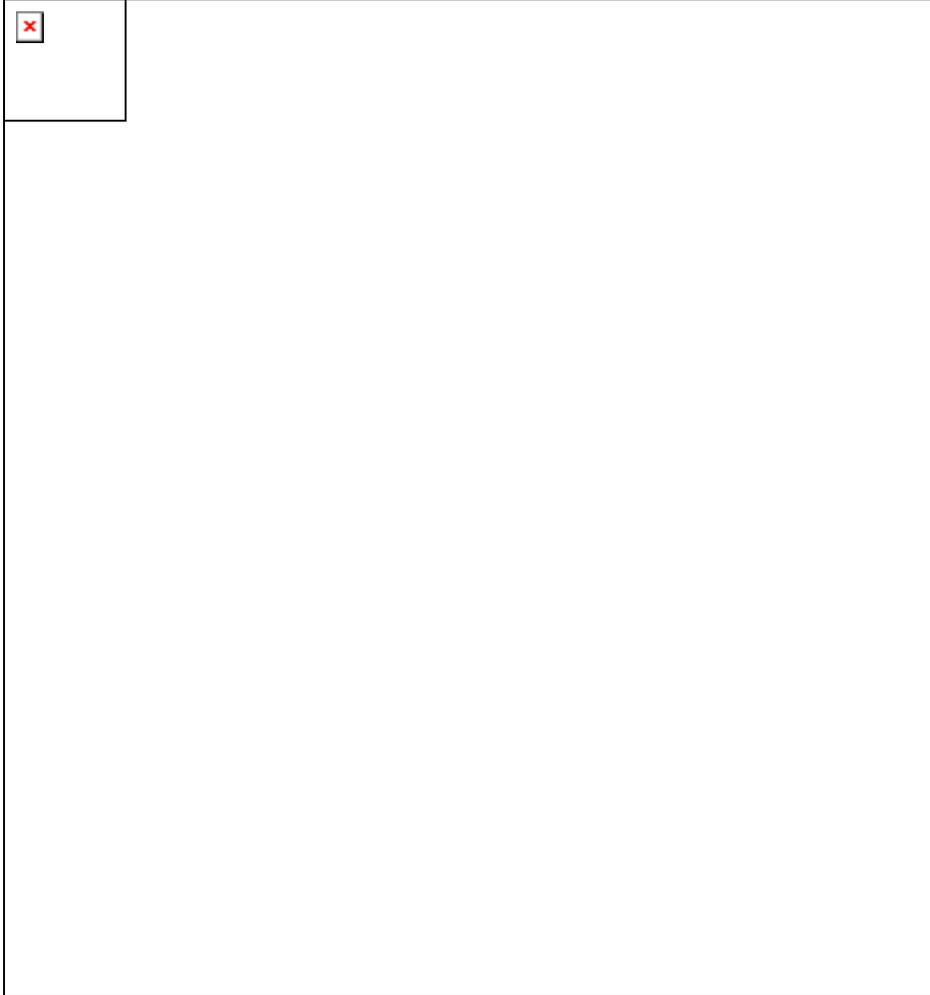
"The Tree of Life"

Vickie Webb, c1999

The two competing attractors in this model are the top-down Kether, and bottom-up Malkuth.

Qabalistic wisdom tells us that, in fact, "Kether is in Malkuth", so they are complementary superpositions.

*"All that is physical is energetic. All that is metaphysical is synergetic."
(Fuller, 1976)*



The Psychophysical 12-Dimensional Matrix;

**Six pairs of complementary opposites, synergetically inter-tensioned,
reveal the implicate matrix of the Tree of Life geometry.**

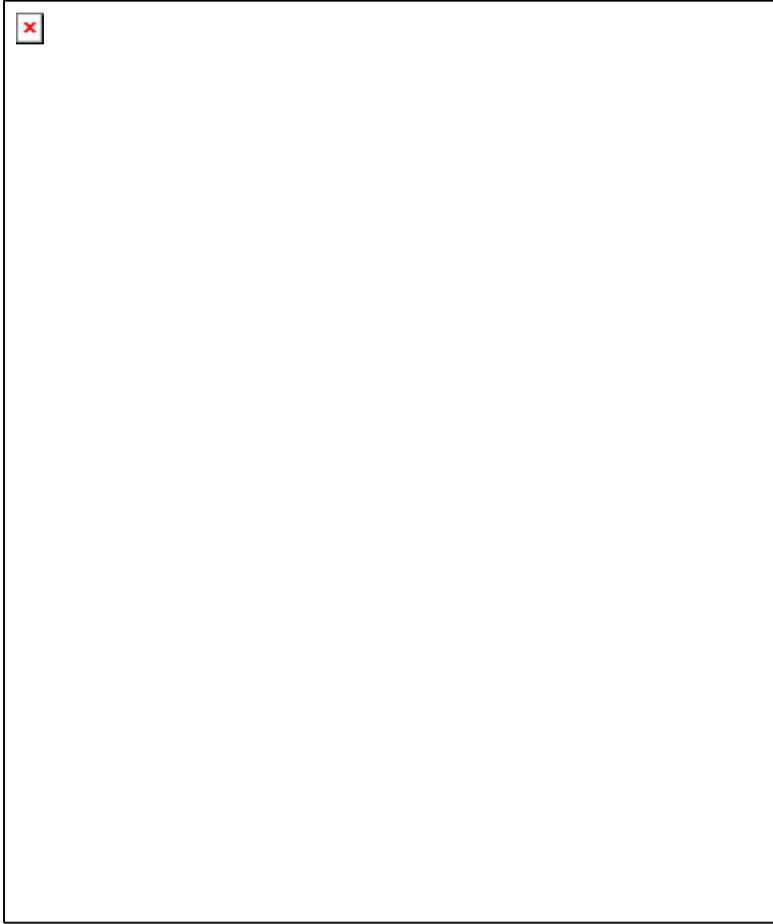
The surrounding Sphere is implied.



"The Diamond Body," c1981

 This is an image of Tiphareth as the Cube of Space. The octahedral geometry is that of a face-centered-cubic close-pack lattice, which is that of diamond's atomic structure. The three axes formed by 3 virtual Great Circles around an implied surrounding sphere are corresponded with the three Mother letters: *Aleph*, *Mem*, and *Shin*. The center of the figure represents transcendence of time and space as symbolized by the letter *Tau*, which corresponds with *The Universe*. The vertices of the octahedron are planetary attributions. Each of the vectors of the surrounding cube correspond with path/letters and are color-coded to their correspondences.

"STAR OF DAVID," c1981



"Atomic V.E.M.," c1983

"He passed the flaming bounds of space and time:

The living throne, the sapphire-blaze,

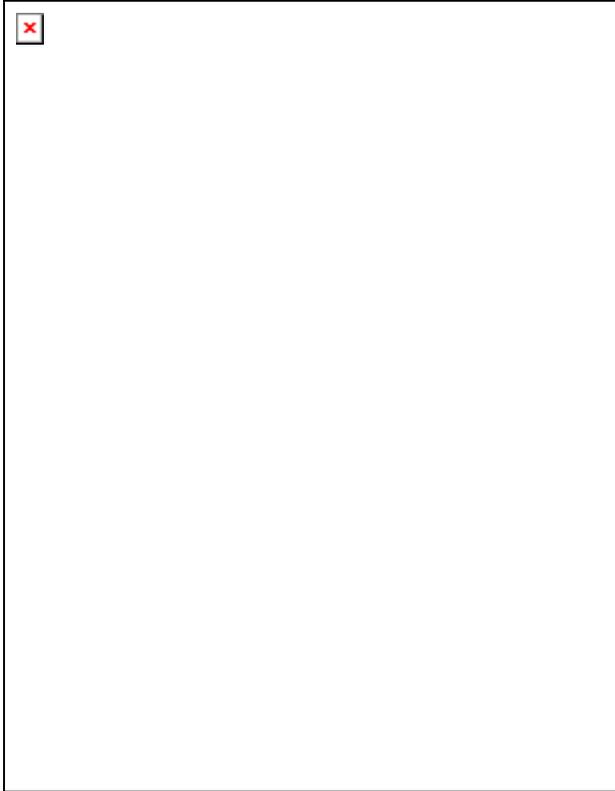
Where angels tremble while they gaze,

He saw, but blasted with excess of light,

Closed his eyes in endless night."

--Milton (1608-74), *Progress of Poesy*

Nested infinities of Vector Equilibrium Matrices generate and regenerate reiterations of Tree of Life vertices or nexus points. This variation on the Cube of Space combines the basic forms of the Star of David and Unicursal Hexagram. The Middle Pillar appears compressed as virtual nested spheres of white, yellow, violet. This is the synergetics of metaphysical reality, a causal plane temple of "wheels within wheels."



"DAATH: The Upper Room," c1981

Jitterbugging Vector Equilibrium Matrix is not a structure but a system, the prime nucleated system. Vector Equilibrium makes it possible to make conceptual models of 4th, 5th, and 6th dimensional omniexperience accounting by using tetrahedroning. Equilibrium between + and - is Zero. V.E. is the true zero reference of the energetic mathematics. It is cosmic zero.

Zero pulsation in the V.E. is a metaphorm of eternity and God: the zero-phase of conceptual integrity inherent in the + and - asymmetries that propogate the differentials of consciousness. V.E. is important because all the nuclear tendencies to implosion and explosion are reversible and are always in exact balance. V.E. is the anywhere, anywhen, eternally regenerative, event inceptioning and evolutionary accomodation and *never* seen in any physical experience.

This metaphorm (V.E.) represents the self's initial real-I-zation both inwardly and outwardly from the beginning of being "betweeness"; maximum inbetweeness. Push/pull; convergence/divergence; gravity/radiation. At zero-point, waves can pass through waves without interfering with other waves. Vectoral phase or zone of neutral resonance which occurs between outwardly pushing wave propagation and inwardly pulling gravitational coherence. Emptiness at the Center: all 4 planes of all 8 tetrahedra (i.e. 32 planes/32 paths)

are congruent in the four visible planes passing through a common V.E. center, the cosmic terminal condition and nature's most economical lines of energy travel.



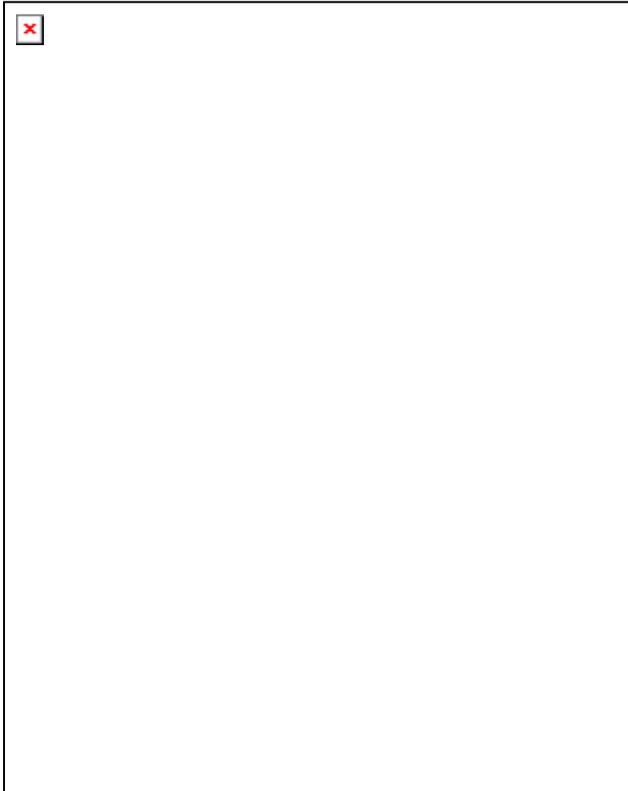
"Omnidirectional Philosopher's Stone," c1981

Daath is the "gateway of all inbetweeness." In this model and metaphorm, physical and metaphysical share the same design. Equanimity model where the reins of all spheres are synergetically intertensioned at Tiphareth. The center of this operational sphere is Zero-Point, Vector Equilibrium, or Cosmic Zero. This psychotronic machine is for interdimensional tuning. Thinking itself consists of filtering out macro- and micro- irrelevancies, which leaves only the lucidly relevant "con-siderations," which as Fuller points out, means "putting the stars together." This topological modeling provides a synergetic means of ascertaining the values of any system of experiences. It is the science of fundamental pattern and structural relationships of event constellations.

All paths of Circulation of the Light are contained or implied in the central hexagonal star. Visualize Vector Equilibrium in the heart center and build up the Cube of Space from the Isotropic Vector Matrix. The center is nucleated

Nothingness = Zero-Point = The Fool, *Aleph/Tau*. The Cuboctahedron; Triquidoid. Symmetry operations carry crystal structure into itself. Rotation and reflection operations = point operations. This metaphorm of the alchemical *Circumambulatio* is analogous to information transfer from vertex to vertex, creating superpositions and sphere-linking.

The dynamic activity connected with the drive to know, to penetrate, to illumine, culminates in a stillness, silence, cessation of all effort which itself dissolves in the tranquility of total negation. $0 = 2$. It is only by virtue of the fact that it is *Naught*. All form and power are latent in the Void. Here we witness experientially the quantum propogation of radiant wave after radiant wave identifiable with given wavelengths and frequencies of enfoldment.

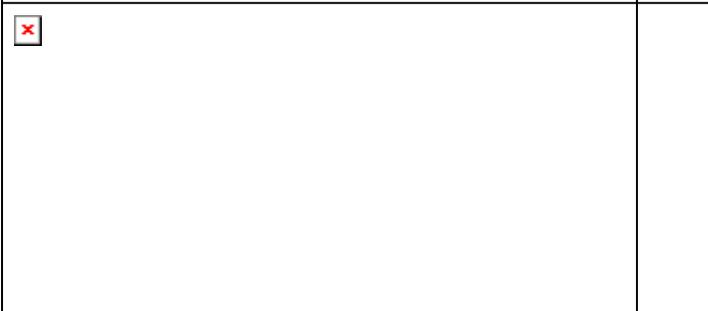


"Crystalline Star," c1981

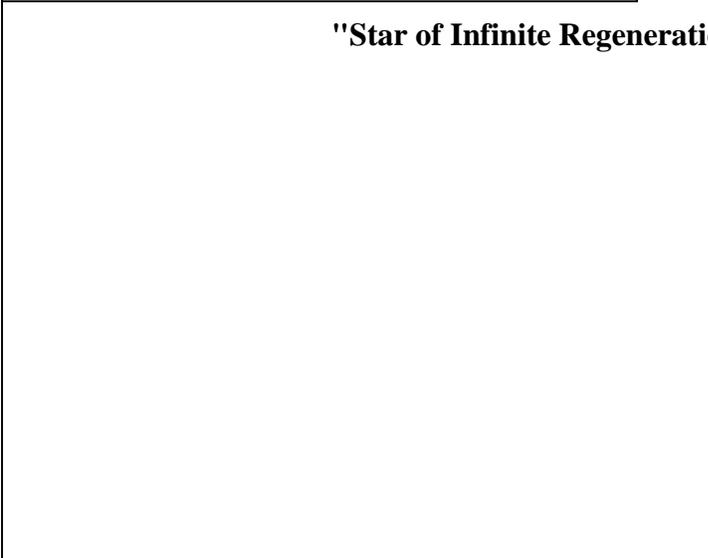
Tiphareth, the Heart Center: Diamond Body plane of operations. Based on the geometry of the Necker Cube. Circulation of the Light from the Throne of Glory. Central shrine, the Throne-Chariot, is an octal code. Necker Cube star forms a diamond-shaped "plane of operations" for the consciousness of the adept. This is a metaphorm or physical analogy to Golgi cells in the brain and their hexagonal inhibitory fields. According to Karl Pribram, the golgi cell system can be considered as a "*focusing device restricting or giving preference to granule neuron (parallel fiber) activity in relatively narrow bands.*" This

synergetic form is the Net of Artemis, an in-formation, re-call, re-membering system.

According to M.L. von Franz in *Number and Time*, a "*mandala is the inner psychic counterpart, and synchronistic phenomena the parapsychological equivalent, of the Unus Mundus. . . attemptss have been made in the past to combine these two equivalentss into a unitary reality and to construct mandalas, which via synchronicity would yield parapsychological "knowledge," (i.e. an "access sstate"). Zosimos and Bruno used them as tools for magically acquiring information about the rationally unknowable.*" The crucial time moment and act of personal intervention leads to qualitative, specific, time moments. They only emerge out of a latent, undifferentiated continuum when the individual confronts the continuum. Via circulation of the Light, the mystical body is formed by diamond-bodying.



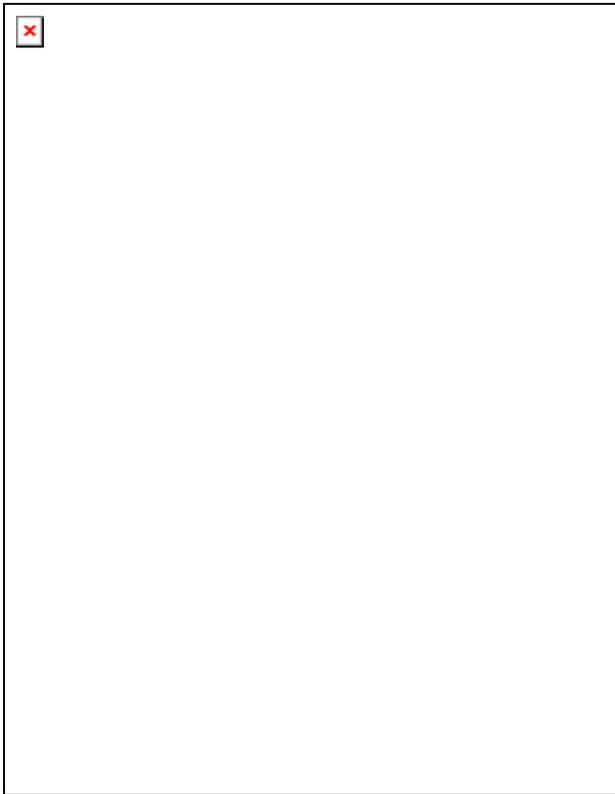
"Star of Infinite Regenerations," c1981



"QBL Double Cube Gambit Grid," c1982

Gambit: *"An opening move such as that which promotes discussion."* The Double Cube is the form of the magician's altar, which can be visualized as superpositioned with the body. This crystalline reflectaphor is based on a multi-faceted variation of the Greek metaphorm, the divine Tetractys, a base-10 pyramid. A variation of The Diamond Body, it is the circuitry of a dimensional teleport system. This is one of the keys to sphere-linking operations.

Combinatoric symbols represent mutually dependent, polarized functions. They reexpress, supplant, and systematize metaphorically, across many levels. The Double Cube of Tiphareth/Daath is represented by faceted jewels of mutually synergetic, non-polarized functions. This meditational abstraction of the Middle Pillar of Equilibrium combines the silver and gold currents of the left and right pillars.



"The Sun Code of Genetic Programming," c1982

Sun Code of Genetic Substances

The so-called sun-code of genetic programming. The codones (four genetic substances) should be read from the inside-out. The four color-coded substances (G, A, U, C), combine first in 16 ways (4 x 4), then in 64 ways (4 x

16). The magic number 64 immediately reminds us of the 64 Hexagrams of the I Ching, the Chinese synergetic book of life. In this painting, the Sun-Code occupies the place of Tiphareth, surrounded by its satellite Spheres of the Tree of Life. The surrounding DNA chain in the shape of the World Egg, is a variation of the alchemical tail-eating serpent Ourobours. Its head is formed by the Hebrew *Yod*, a symbol of life and sperm, the unbroken circle of life.

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THE HOLISTIC QABALA

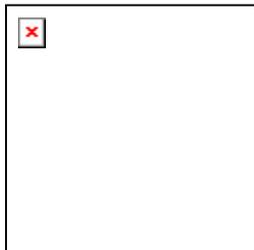
A Practical Guide to Contemporary Magick

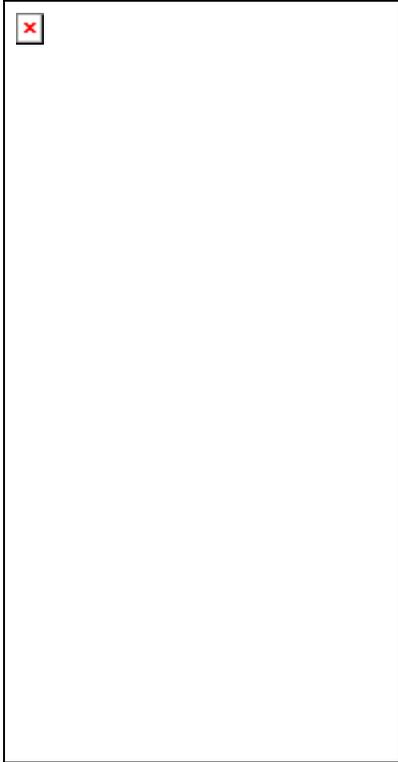


by Philo Stone, 1983
(Richard and Iona Miller)
Updated by Iona Miller, 1999

*"How we long to become that
which we hardly believe we are!"*

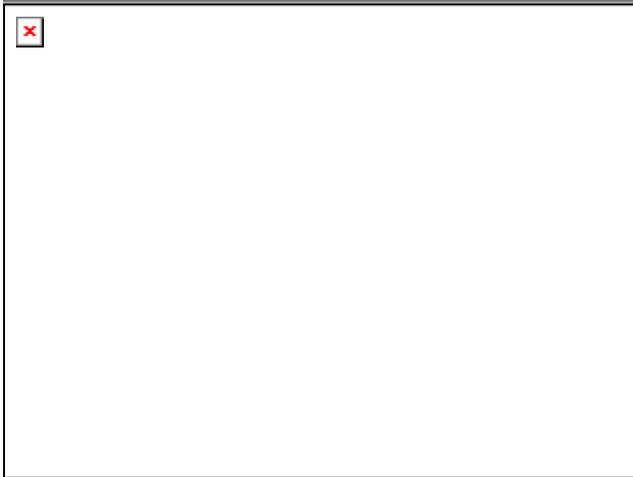
--Pir Vilayat Khan



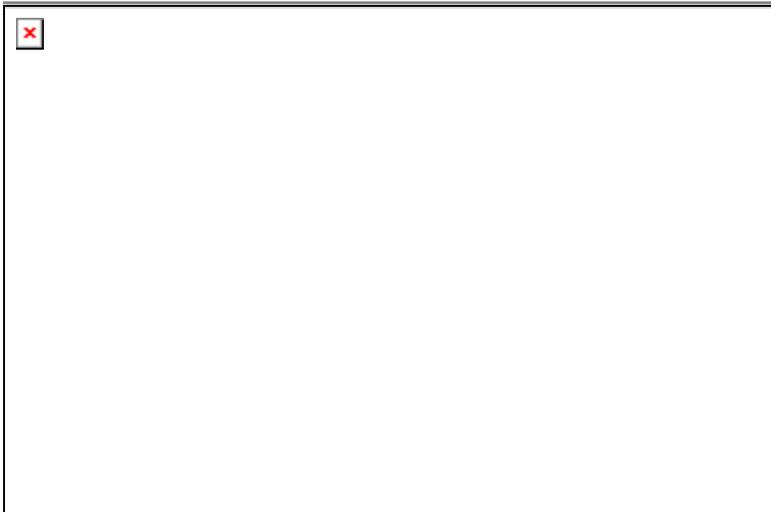


THE TREE OF LIFE

A large, empty rectangular box with a thin black border. In the top-left corner, there is a small red 'x' icon inside a square frame. In the top-right corner, the text "The 12-Dimensional Matrix Emanates the Tree of Life" is written in a bold, black, sans-serif font. A horizontal line extends from the right edge of the box across the page.



The Vector Equilibrium Matrix underlies all Creation





"Radiant Forms"
Iona Miller, 1999

FOREWORD

(Updated, 1999): We live today in a rapidly changing, technological world. With so many of our cultural institutions and ideas undergoing transformation, where can we turn for a user-friendly approach to the problems of living? We are bombarded with information from the media about how to transform ourselves and others. But, where can we find the criteria for what constitutes a change in the right direction?

In the past, we turned mainly to religions which were accepted in our local culture. But, now we are reaping a harvest of cultural options of values, ideals, and paths. We can only conclude that orthodox religions have failed to provide an adequate container for many individual's experiences.

Psychology, while it has made much progress since the discovery of the unconscious by Freud, has added to the confusion by presenting many conflicting theories. Also, it is subject to fads, such as Satanic Panic, False Memory Syndrome, and Inner Child, (what about the Adult?). One of the first schisms occurred between Freud and his star pupil Carl Jung. He broke with Freud because he could not accept the basic Freudian doctrine of repressed infant sexuality.

Jung developed his own theories concerning the collective unconscious and its relationship to each person's personal unconscious. The personal unconscious comes from one's individual experiences, while the collective unconscious is an inherited legacy of all mankind. Basically, Jung's psychology stressed the quest or search for meaning.

The "search for meaning" or meaningful experience is something we can all relate to as being valuable in, and of, itself. However, seeking has degenerated into a mind boggling choice between pop psychologies and New Age nostrums. The psycho-babble is endless, and new treatments are served up like the soup de jour. Trendy therapy and spirituality is faddish, stylish, and disposable just like our fashions in clothing.

The hard sciences have offered a never-ending series of transforming theories of the nature of reality also. A short time ago the leading Theory of Everything was based on Superstrings, but that became ungainly and unaesthetic mathematically. Now the darling is scalar physics and the vacuum potential. Physics has moved its microcosmic threshold into the realm of the unobservable virtual reality-- the domain of metaphysics. Quantum Cosmology isn't far behind. Astrophysicists will tell you that the only galaxy we are sure is made of matter is our own, because the light emitted by antimatter is no different from that emitted by matter.

Perhaps the scientific revolutions, which their paradigm switches, have been slightly more orderly. But their unsettling effect on an individual's world view still prevails. Just when you get the Holographic Concept, something new comes along to challenge our notion of how things work. Even as advanced an intellect as Albert Einstein was unable to accept primal de-stabilizing viewpoints. He was unable to accept the inevitable implications of his theory of relativity, which results in

quantum mechanics. We can only conjecture that Post Quantum Mechanics would make him roll over in his grave.

As recently as the 18th century an individual might be able to comprehend most branches of the arts and sciences. These were the times when the mechanistic models prevailed, including classical theories concerning space and time. In the 19th century this changed radically due to the speculations of the late 18th century philosopher Hume. He ushered in empirical, skeptical, non-metaphysical thinking which inspired the work of many revolutionary scientists, and dispelled age-old superstitions.

A few examples of this triumph of the rational mind over the pre-rational superstition includes the following: Charles Lyell in earth history; Darwin in organic evolution; Claude Bernard in general physiology; Pasteur in pathogenesis; Marx, Engels, Herbert Spenser and other in social sciences; Hughlings Jackson and Charles Sherrington in neurophysiology;; Paul Broca and Carl Wernicke in neuroanatomy; Camillo Golgi in neurohistology; James, Freud and Jung in psychology; and James Clerk Maxwell in physics.

There has been an explosion of information about the nature of things. Any self-respecting individual is expected to know much of it, plus have a highly developed emotional IQ.

We all need a model, or worldview, through which existence and our experiences can make some sense. The vast diversity of such views produced by human culture discloses some arbitrary factors in the construction of these world views. Our beliefs are subject to many formatory influences. And for the seeker the scope of the problem of finding a Way that resonates with themselves may seem overwhelming.

What is required is a comprehensive paradigm, or thought-model, which has scope and depth enough to contain the entire continuum of creation from All to Nothing. This is where the value of Qabala comes in.

The qabalistic techniques were developed in remote antiquity for stimulating latent, or subconscious abilities, with the aim of self-realization and God-realization. A personal program of spiritual development allows an individual to transform himself according to a consistent, orderly process. A self-directed individual can recreate himself as an integrated individual. By facilitating internal processes of creativity, we release our optimal talents and realize our potential for self-unfolding.

The Qabala, with its most important diagram, the Tree of Life, provides a synergetic background for this process of change. Qabala is extremely relevant to the average reader who is seeking greater self-awareness of objective and subjective worlds. To this end, the format of *THE HOLISTIC QABALA* can serve as a lifetime study guide.

In recent history, we have tended to become very specialized in our fields, narrowing the fields of endeavor. For example, in the field of psychology we now have such rare breeds as ethologists, neuroethologists, sociobiologists, behavioral

neurologists, physiological psychologists, biological psychiatrists, psychopharmacologists, behavioral geneticists, etc.

The late Buckminster Fuller suggested that universities and specializations evolved to keep the most intelligent under control. Rulers thus limited their subjects' knowledge by directing them into specialties. This prevented them from piecing together the exploitive procedures of the sovereign and formenting revolution. The sovereigns then promptly exploited the specialized knowledge of the experts.

To find meaning in our modern lives, we need to make a continuing effort to learn about the worlds within and without us--to be generalists--like the old natural philosophers. There is still a lot of superstition in our culture, and even the New Age has a distinctly anti-scientific, pre-rational orientation. There are both values and limitations in science and technology. But rather than reject them, we need to extend their usefulness to ourselves. We can integrate them in our qabalistic study program. In this manner we may at least learn something about each aspect of life, and become more well-rounded in our interests, attitudes, and expressions.

We need to balance the pursuits of the mind with the experiences of soul. The importance of the soul was eclipsed historically for a time due to the rational, empirical attitudes of science. But now there is a melding. This is apparent, for example, in such works as *THE SPIRITUAL UNIVERSE: How Quantum Physics Proves the Existence of the Soul*, by Fred Alan Wolf, Ph.D.

The realm of Depth Psychology examines the inner self of the 'psyche' which means not only what is generally called soul, but all the conscious and unconscious processes. Contents which can be raised from unconsciousness are known as 'preconscious.' There are two broad divisions of the unconscious--personal and collective. The Collective Unconscious contains the primal patterns of the behavior, or archetypes. Known in the past as Gods and Goddesses, these forces are the inhabitants of the mythic realm.

In Depth Psychology the archetype of personal growth and spiritual development is known as the Self. In Magick, it is called the inner self, or higher self. It is the transcendent function, the center of the transformative process of "coming to wholeness." All other archetypes are contained within it, as a series of unions of opposites.

The Self unites and harmonizes such opposites as masculine/feminine; good/bad; hero/adversary, etc. It also contains the patterns for experience of the cyclic nature of life's crisis points. Its contents include the quest for meaning and the cycle of death and rebirth. Containing everything, it represents the maximal potential of any individual.

The Self provides an inner model of oneself in an idealized future. It confers initiations of the highest value through self-organizing experiences, beyond our conscious understanding or manipulation. It is mode of transcending the mundane world. Therefore, Self is both transcendent and personal. This gives divine worth to

each individual manifestation of human nature, and dignity to everyone's personal experience. Experience of the Self is validating. The archetypes, symbolized by the Self, shape and define human behavior, attitudes, thoughts, beliefs, emotions, and the very body itself.

Depth psychology has employed the descriptors of the ancient metaphysical practice of alchemy. Alchemy was a process/goal of self transformation with the aim of creating a series of unions of the various contending psychic substances. These descriptive phases are useful for linking Depth Psychology to the practice of Qabala as they further define the criteria of each synergetic stage.

Pursuits like alchemy, astrology, Qabala and their corresponding imagery provide access to the messages and meanings coming into consciousness from the collective unconscious. Learning to use any of them is like learning a foreign language, and just as useful. Jung himself stressed the primacy of imagery in his practice: *"Images are the only reality we apprehend directly; they are the primary expression of mind and of its energy which we cannot know except through the images it presents."*

The Qabala, with the Tree of Life provides a meaningful, consistent pattern for perceiving the visible and invisible Universe. Through it we have a means of classifying all types of experiences we are capable of having, including physical, emotional, mental and spiritual. It provides a philosophical basis for investigating the spectrum of human potential and achievement.

The goal of the process of Qabalistic pathworking is to produce Masters. The master of the Qabala is a perfect person, a role model for us all. He lives harmony by being himself, most perfectly. The *Zaddik* is highly individual, but always a paragon of ethical virtue, and impeccable in wisdom and understanding. He teaches his students how to immerse themselves in the divine stream, like most mystical traditions ultimately finding union with God.

Qabala is a theistic meditation practice. A state of total realization is created through synergetically balancing and raising the consciousness of the aspirant up through all the levels of Existence represented by the Tree of Life. Ultimately, one merges back into the source. Qabala provides both training and direct experience. Once the theories are learned, they must be put into practice. QBL describes the Creation from Nothing to Everything in one fell swoop. It is an analogue model of the Absolute.

The experienced qabalist gains an understanding of his limitations and perceptions of reality, enabling his consciousness to contemplate the Truth of Existence, an expansive vision. If it is God's Will and Grace, he becomes an exemplar among men, a role model for realization of both human potential and mystical attainment. The Jews called such a person a *Zaddik*, or Saint.

The Qabala answers visible problems. It affirms the practicability of personal spiritual development. Without the transformation of individual consciousness

through self-understanding, we are left to witness the breakdown of culture and society in chronic degeneration.

Millennial fever has aggravated doomsaying and visions of Apocalypse. However, the employment of qabalistic techniques offers another way. Epoch-alyse might be viewed as an "alternative to apocalypse. Holistic Qabala addresses both ancient and modern questions which press on our lives demanding understanding. These questions range from mild curiosities to adaptive necessities.

Each of the Twelve Volumes of the series stands on its own as a discourse on an aspect of existence or a quality of human potential. These characteristic potentials are distinct and discrete for each level of awareness. Taken together, they form a harmonious worldview, uniting inner and outer reality.

Questions outlined include the following:

Vol. 1, MALKUTH, the Sphere of Earth

- What are the current concepts in science about the nature of existence and mankind's role?
- What is the value of personal psychological or spiritual development?
- What inner processes is one likely to encounter through self-analysis?
- What are some practical methods of balancing the personality?
- What is the value of including magic in a program of self-development?

Vol. 2, THE UNIVERSE, Path 32

- How can I begin the inner journey to great self-awareness?
- What are the patterning principles in our lives which make us repeat common themes, such as growth, love, conflict, etc.?
- What are the motivating factors of human behavior?
- How can I find value and meaning in my depressions?
- What is the nature of Time and Space, and how does it relate to concepts of Immortality?

Vol. 3, YESOD, the Sphere of the Moon

- Are dreams meaningful for daily living?
- Just what is an experience in the "Astral Body"?
- What place does mythology have in my psychological awareness?

- **What is the nature of Feminine Conscious, or Woman's Mysteries?**
- **Can the cycle of the Moon and other seasonal change influence our emotional lives?**
- **How can men and women get along better through understanding their own personal makeup?**
- **How can it be that we all share masculine and feminine psychological components?**

Vol. 4, HOD, the Sphere of Mercury

- **Why do scientific theories change so frequently?**
- **How can we live in a technological era and retain "connectedness" to nature?**
- **What are the main personality types and how does each function?**
- **How can I determine my type and learn to relate better with others?**
- **Just what are "altered states of consciousness" and why would I want to experience them?**

Vol. 5, NETZACH, the Sphere of Venus

- **What is the role of imagination in individual development?**
- **How do the Tarot, I Ching, and other forms of divination work?**
- **What is the distinction between romantic and divine love?**
- **Do aphrodisiacs really work?**
- **How can I understand the relationship between brain wave patterns and states of mind?**

Vol. 6, ART, Path 25

- **What is the metaphysical meaning of Art?**
- **What distinguishes those with an artistic temperament?**
- **How can I tap the source of artistic inspiration?**
- **What is the nature of free will and True Will?**
- **How can I use visualization exercises most efficiently?**
- **Can I really test my own level of creative development?**

- **Is it possible to contact my inner Soul Guide?**

Vol. 7, TIPHARETH, the Sphere of the Sun

- **What is the relationship between meditation and self-realization?**
- **How do ancient descriptions of exultive experiences relate to current terms?**
- **How may I attain well-being and a sense of wholeness?**
- **What is the role of a spiritual teacher in my personal development?**
- **What are the basics of the Holistic worldview?**
- **What characterizes the state of optimal equilibrium?**

Vol. 8, GEBURAH, the Sphere of Mars

- **What are the values and drawbacks of self-assertion?**
- **What are the philosophical bases of the concepts of Justice and Karma?**
- **Will mankind ever cease his endless war upon himself?**
- **Are women inherently less aggressive than men?**
- **How can I use stress to enhance my life?**
- **What are the spiritual aspects taught in Martial Arts?**

Vol. 9, CHESED, the Sphere of Jupiter

- **Why are there differing philosophies and ethics in the world?**
- **How can I develop discernment?**
- **What do philosophies do to promote cultural change?**
- **What are the goals and motives of philosophy**
- **What are the questions posed by philosophy, and how are they answered?**
- **What is the difference between monotheism and polytheism?**
- **What is the relationship between philosophy, psychology and religion?**

Vol. 10, THE HIGH PRIESTESS, Path 13

- **What insights can I gain from exploring?**
- **What happens to those who "had it all together" when they fall apart in crisis?**
- **What is the nature of the World Soul, or Anima Mundi, as it relates to inner life?**
- **How does the Third Eye and its glands regulate inner life?**
- **How does the process of memory work?**

Vol. 11, DAATH, the Invisible Sphere

- **What is the spiritual region mystics describe as the Abyss, and its dangers?**
- **What is the Dark Night of the Soul?**
- **What kinds of traps can the unconscious make to hinder the soul?**
- **What are the limits of access to Knowledge?**
- **Why is physical immortality an unlikely proposition?**

Vol. 12, THE SUPERNAL TRIAD, Crown of Creation

- **What does Qabala say about the Creation?**
 - **What are the experiences of mystical attainment?**
 - **How can I know a true saint or Sat Guru?**
 - **How can I benefit from God-realization, when I am so far from it?**
 - **What is the goal of the Great Work?**
-

INTRODUCTION

The mystical system known as the Qabala or QBL, originated in the Hebrew culture. For the Jews, practice of the Qabala meant systematically working oneself up the Tree of Life in an attempt at re-unification with God. The Tree of Life, with its ten spheres and twenty-two paths provides a map of the inner realms. It gives the aspirant a means of orienting in imaginal space, as well as a system of initiating and classifying mystical experiences.

As the Hebrew culture came into contact with those of the Near East and Europe, there was a fusion of Qabalistic thought and concepts with those of other nations. This fusion ultimately included Egyptian, Gnostic, Christian, and Oriental elements. The practices of alchemy, astrology and magic were corresponded with the processes represented on the Tree of Life. Jews began teaching Qabala to gentiles during the Inquisition, because they anticipated slaughter.

The evolution of this eclectic system culminated in the Eighteenth and Nineteenth Centuries in the formation of such groups as the Rosicrucians, Masons, Theosophists and The Order of the Golden Dawn. These groups synthesized the disparate elements of the western mystical tradition into a coherent whole.

In establishing the Hermetic Qabala, these philosophers clarified the techniques of self-development practiced during the Renaissance. These doctrines came to Europe through translations by Ficino, from ancient manuscripts. The pope commissioned the translations. There was a paradigm shift from will-power to active imagination, and a renaissance of the mythical.

With the advent of Freud and Jung, the theory of magical development could be restated in psychological terms. Even though engaging in dramatic episodes in an imaginal "netherworld," the magician also understands himself to be dealing with aspects of his inner Self.

A primary concept in Hermetic Qabala is encoded in the famous axiom, "*As Above/So Below*." This includes the idea that each human is a diminutive representation of the entire cosmos. Man is a microcosmic representation of the entire process of creation. We find this notion reflected in the modern holistic movement, and notions of a holographic universe. Emphasis is on the integral nature of our participation in nature and existence. The desire for psychological wholeness and experience of an integration of the self with all creations is common to both Hermetic magical practice and the holistic psychological orientation.

The Tree of Life provides a map for the journey into the unconscious or transpersonal realm. It provides conceptual categories for taking information from diverse sources and ordering it. But we must not confuse the map with the territory, which is the psyche, itself. The Qabala is the traditional model for describing states of mystical experience, but the method of accessing these realms is active magical

aspiration and meditation. There is a melding of will conscious attention, or seeking with the archetypal realm of the psyche.

The Spheres of the Tree of Life graphically depict the discrete states of consciousness available to the soul. The Paths of the Tree represent the psychological transition states between them. They are the means of moving from "point A to point B" synergetically. Taken together, the spheres and paths express all modes of "being" and "becoming" possible in human existence.

In THE HOLISTIC QABALA, the soul-field (represented by the Tree of Life) is considered as the Reality which underlies all perceptual reality. Our senses actually function as "filters" which prevent us from experiencing a more integrated awareness of existence. Mystics say that ultimately the soul must even disengage itself from its relationship with the mind, which also distorts soul's pure existence. But this self-realization of the unencumbered soul is an extremely advanced state.

In the meantime, the Qabala provides a paradigm or thought-model for the aspirant. The holistic nature of the Qabala is realized through the system of correspondences, whereby diverse symbols are categorized and ordered. An example of the correspondence system is the underlying unity between the Sphere Tiphareth, the Sun in astrology, gold in alchemy, and the godforms Christ, Mithras, and the archetype "magickal childe." It would also include characteristic colors, plants, stones, and inner experiences of psychological transmutation. The Holistic Qabala is a sort of unified field theory disclosing the underlying matrix of both consciousness (or psyche) and matter. The alchemical analogy is the *Unus Mundus*, or One World.

Areas included in this correspondence with the ten spheres of the Tree of Life are: philosophy, psychology, physics, mythology, astrology, Tarot, and alchemy. In The Holistic Qabala, a basis is provided through which these separate areas of study relate through a common theme.

Practical applications are provided for each mode of consciousness and transition-state presented. Through elaboration from diverse fields of human endeavor, a comprehensive concept of each Sphere is built. The reader develops a "feel" for the meaning of each sphere and path. This non-dogmatic approach forms a basis for your own speculations and experiencing. It is an orientation. A series of psychological models for moving into and through various stages are suggested.

This work pays particular attention to the corresponding deities of the different centers. This is not intended to create any conflicts in monotheistic readers, but is a convenient way of classifying psychological forces. In ancient times these universal forces were known as gods and goddesses. So this terminology is retained for expediency. We come to realize "the many through the One," or "the One through the many." To know God directly is an overwhelming proposition, but we can integrate discrete aspects, through relationships and identification.

The experience of these archetypal encounters with aspects of the Self is presented as an on-going part of daily life, not just confined the ritual-space. If we pay attention to it, we can "see through" our mundane experiences to the imaginal realm of the gods and goddesses. This is Astral vision. There is a unification of mundane and spiritual life, mediated by the soul.

Sections on astrology and alchemy allow access to the common core of meaning between QBL and other metaphysical disciplines. The meaning of the various planetary forces are fleshed-out as they are personified. These dynamic forces of the unconscious relate to the conscious ego via symbols and imagery. When we have learned the parameters or field-of-influence of these deities, we have gained the ability to recognize and discriminate among them. Most importantly, we have taken up a conscious relationship with them.

Each chapter culminates in a valuable exercise for grounding in the state of consciousness under consideration. They are designed to provide both experiential and conceptual understanding. It is important for psychological balance that intellectual cognition keeps pace with spiritual experience. Together, cognitive and affective development open the Middle Way.

THE FOUR WORLDS OF QBL:

The Qabalistic worldview divides Creation into four levels of existence:

1. Assiah, the Physical Plane (Sphere 10)
2. Yetzirah, the Emotional plane (Spheres 7, 8, 9)
3. Briah, the Intellectual Plane (Spheres 4, 5, 6)
4. Atziluth, the Spiritual Plane (Spheres 1, 2, 3)

1. THE PHYSICAL PLANE has been described as a pendant on the glyph of the Tree of Life. Actually, it is de-pendent upon the formative processes of the Higher Planes. It represents the entire physical world of corporeal matter, including the human body. It manifests distress in psychosomatic symptoms. The influence of the archetypes is projected into material form. The physical plane is the lost accessible region of the subconscious. Just because events are real doesn't mean they are a content of consciousness. This can't occur until you can plumb the psychic depths, deliteralize, and see the archetypal core behind man-I-festation. This is the condition of "normal" ego-consciousness, prior to undertaking the spiritual quest.

2. THE EMOTIONAL PLANE has a physical analogy known in science as electromagnetic fields. In the past it was called the Astral Light or Astral Plane. Psychologically, it is the world of images and their affects. This is where archetypes are perceived in images or mind-pictures; often this means only a vague awareness or foreboding. This is also the realm of dream and divination. The Astral Body is the vehicle of travel in this plane. Here, both godforms and matter (Maya) are visible. This is the lunar plane of psychics and mediums; it influences the body

through the parasympathetic nervous system or the central nervous system. Its negative expression is over-emotionalism.

3. THE INTELLECTUAL PLANE marks the upper limit of the mind's influence on spiritual effort. Beyond this area, there is neither mind nor matter. In order to journey to these higher realms, the soul must dissolve its knot with the mind, and ascend by the magnetic attraction of God's holy Word. This is the region of psychological conceptions concerning archetypes. The aspirant not only has visions of archetypes or godforms, he recognizes these forms or forces when he sees them, and has creative, dialogical relationships with them. He learns to project his will through the visualization of images. This is a function of the rational mind, put to spiritual use. This is the geometrical realm of the Causal Body, termed the Body of Light by mystics. To psychologists, it is a crystallization of the archetype of the Self. This stage reflects self-realization or perfect equilibration. The mind manifests negatively in neurosis.

4. THE SPIRITUAL PLANE of existence is that which is inhabited by the archetypal patterns or matrix patterns before they begin to descend into material manifestation. Their bodies are the lineaments along which the lower planes crystallize. To reach this plane, all form is sacrificed. This is the pre-geometrical plane of "information." Awakened souls and Masters have the ability to travel at will and merge with this World of the Divine. This higher faculty allows them to see that all the archetypal impulses or forces exist without spatial separation. Each 'plane' is a new modality without spatial separation. The archetypal world cannot be conceived of in images, nor the concepts of the mind. It is the experience of final reunion which makes man and God complete.

[Geometrical construction of the Tree of Life]

The Abyss is another landmark described by mystics as part of the inner journey. It is a large expanse of utter darkness lying between the Intellectual Plane and the Archetypal Plane. It marks the line of demarcation between the Intellectual Plane and the Archetypal Plane. It marks the line of demarcation between the primal forces of creation and the formation of phenomena. It is said to contain a sort of spiritual island, or resting spot. In QBL, it is called DAATH, and is considered a gateway to another dimension. In Eastern systems, it is called Anchit Dip.

Described in terms of man's spiritual development, it marks the transition in spiritual practice from using procedures to move one's self higher (self-realization) to receiving the downpour of God's divine Grace (God-realization). From this point, one cannot advance through personal effort alone. There is a complementary "reaching down" by the higher forces to meet the soul "half way."

The Abyss is a dangerous place because, here, there is both an upward tendency and a lower tendency. The lower tendency has to do with the subconscious mind of God (Universal Mind), and its perversity and negative manifestations. The temptation is to remain at self-realization worshipping one's Self. This leads to degeneration. Universal Mind is the final trap for the aspirant, as it seeks to entrap the soul in its time-bound realm. One can get lost for eternity in the depths of this transcendent imagination with No Exit.

By attaching oneself to the upward tendency, spiritual secrets are revealed to the soul, and the knot with the mind is dissolved. A God-realized Master who initiates the aspirant during his lifetime aids this process. He then functions as a soul-guide, ferrying the soul across the Abyss, with the assurance of safety. He is attached to the Lord or the Light, and if you are attached to him, you can follow by living his teachings. Remember, no teacher can take you to realms higher than he has experienced. For the most progress, it is expedient to find a God-realized Master.

This manual describes the Spheres and connecting Paths of the Middle Pillar of the Tree of Life. Many other magical texts are available describing the basics of QBL, and the student is advised to familiarize himself with them. The Holistic Qabala, however, presents a series of essays in a modularized format.

The reader may pick and choose among them for subjects of immediate interest. The book may be studied and re-read to increase comprehension. It is a complete course and can be re-read with benefit many times. Also, you will be referred to other sections of the work, which may further define a given topic.

A spiritual science is developed by synthesizing concepts from the past with trends in current research. The Spheres and Paths are defined in practical, contemporary terms through the corresponding contents of the chapters. Each chapter is divided into four sections which relate to the planes as follows:

- 1. Archetypal (Spiritual) Plane = Philosophy**
- 2. Intellectual (Causal) Plane = Psychology**

3. Emotional (Astral) = Astrology and Alchemy
4. Physical Plane = Orientation/Exercise

Each plane contains an entire Tree of Life within it, which resonates with the other planes. The experience of the paths are appropriately different for each level of awareness.

The format is modularized so the reader may review topics of special interest out-of-sequence. The linear, or sequential development in which runs throughout the chapters, traces the path of hierarchical development in the consciousness of the adept. Included under the term "consciousness" are both the rational ego-consciousness, and the diffuse anima-consciousness of the soul, which is prior in existence to the emergence of the ego, and persists after it has merged.

[Four Worlds Tree of Life]
Spheres 1-2-3=Archetypal; DAATH=Abyss; Spheres 4-5-6=Causal;
Spheres 7-8-9=Astral; Sphere 10=Physical

THE HOLISTIC QABALA

TABLE OF CONTENTS



PART I: ASSIAH, THE PHYSICAL PLANE

BASICS: MALKUTH

MALKUTH, the Sphere of Earth

1. PHILOSOPHY

- a. Initiation: Neophyte--The Value and Meaning of Initiation**
- b. Ritual: On the Practice of Ritual and Ceremony**
- c. Practical QBL: The Holographic Concept of Reality**

2. PSYCHOLOGY

- a. Psychological Model: The Path of Individuation**
- b. Archetypal Encounter**
 - (1). Persona, the Public Mask**
 - (2). The Shadow, Your Unlived Life**
 - (3). The Double and Immortality**
- c. Mythic Correspondence:**
 - (1). Hestia, Goddess of the Hearth**
 - (2). The Kore, Maiden Bride**
 - (3). Demeter, Earth Mother**
 - (4). Narcissus, the Self-Absorbed**
 - (5). Pan, the Nature God**
 - (6). Gaia, Primal Matter**

3. ASTROLOGY AND ALCHEMY

- a. Astrological Cycles of Unfolding (Natal Chart=Prima Materia)**
- b. Introduction to Alchemy in Jungian Psychology**
- c. Alchemical Imagination: Making Psyche Matter (Mortificatio)**

4. ORIENTATION/EXERCISE

- a. The Banishing Ritual and Psychological Orientation**
 - b. Psychic Equilibration and the Middle Pillar Exercise**
 - c. Middle Pillar Exercise and Synesthesia: Cross-Modal Sensations**
-

MALKUTH, Sphere of Earth

Malkuth means "the Kingdom." All gross matter may be considered as expressing the qualities of the four elements: fire, water, air, and earth. In modern terms, there are four fundamental natural forces. They are "strong" force, "weak" force, electromagnetism, and gravity. "Strong" force holds the nucleus of the atom together, contributing to the stability of matter; "weak" force occurs in many natural processes, but the most familiar is radioactive decay. Malkuth is the corporeal sphere of Earth.

The basis of any stable magickal development is the maintenance of physical health through proper diet and exercise. Wrong diet, especially eating at inappropriate times, is a major cause of physical, emotional, and mental imbalance.

Opinions differ on whether man's natural diet should include meat. But most meat is full of steroids and antibiotics that accumulate and cause harm to the body. What serious aspirant would want to kill and living creatures for food or sport? Is that not a lack of compassion? Advantages of a meatless diet include lower incidence of hardening of the arteries, less uric acid, and chemical intake. According to yogis, it also makes the body less distracting in meditation to eat Satvic, rather than rajasic or tamasic foods. Nutritional supplements for B-12, lecithin and minerals ensure optimal physical and mental performance.

The best stress management programs consist of a combination of physical exercise and meditation. One works with the sympathetic nervous system, and other on the parasympathetic system.

Development of body-awareness is important for "coming to wholeness." There are many techniques to choose from. A disciplined physical fitness routine might include any of the following: aerobics, "chopping wood and carrying water," Tai Chi, hatha yoga, or dance. If you seek energy=aerobics; freedom=stretching, yoga, Tai Chi; power=martial arts, muscle building; joy=dance; exercise + "inner-cize" can be done with guided images.

- 1. Physical Plane:** The four natural forces. Resonance. Sensory awareness. Diet and Exercise. Level of observation in Physics; matter. Body; psychosomatics.
- 2. Astral Plane:** The Magickal Image is a Young Woman, Crowned and Throned, who is Demeter/Persephone, a dual form of the Goddess. She is at once Earth Mother and her daughter (the Kore), the archetypal maiden. This young bride becomes the Queen of the Underworld, or subconscious. Persona, the social mask. Discrimination, avarice, inertia.
- 3. Causal Plane:** The Personal Unconscious includes the memories and repressed material which must be raised to consciousness. These conflicts must be resolved before one is ready to confront the Collective Unconscious. These repressed contents requires a specific technique designed to "raised" them.
- 4. Archetypal Plane:** Initiation into a Mystery has to do with "initium"; an image of "going within, suddenly" as in the abduction of Persephone into the Underworld,

below the threshold of consciousness. Her "going within" changed her in a fundamental way, suddenly and forever.

Book II Path 32: *THE UNIVERSE, Saturn*

BASICS: THE UNIVERSE

THE UNIVERSE: Path 32 and Extrasensory Perception

1. PHILOSOPHY

- a. Transitional Phase: The Tree of Life, Topological Modeling, and Information Theory
- b. Ritual: The Spiritual Hierarchy and Assuming the Godform
- c. Practical QBL: Pathworking; Inroads of the Imagination

2. PSYCHOLOGY

- a. Psychological Model: Archetypes, Fundamental Components of Daily Living
- b. Mythic Correspondences:
 - (1). Hera, the Mating Instinct
 - (2). Saturn/Kronos, the Puer/Senex Archetype

3. ASTROLOGY AND ALCHEMY

- a. The Age Factor in Astrology, and Transits
- b. Saturn, Lord of Boundaries
- c. The Nigredo in Alchemy

4. ORIENTATION/EXERCISE

- a. Time Perception and Sensory Filtering
 - b. 32nd Pathworking: The Personal Experience of Time; Hypnosis and Time
 - c. Life Extension Practices (Aging, Rejuvenation, and Immortality)
-

THE UNIVERSE

Path 32 bridges the Physical Plane to the Astral Plane. As it is ruled astrologically by the planet Saturn, it has to do with space/time and the propagation of recurrent patterns, (from archetypal manifestation to human habits).

As the connecting link between malkuth and Yesod, Path 32 graphically depicts how space/time connects EM fields to matter.

Path 32 is the first path encountered when the aspirant is initiated into the Way of Return up the Tree of Life. It is a path of equilibrium, since it is found on the Middle Pillar. It represents the beginning and perfection of the Great Work.

1. Physical Plane: Melancholy and anxiety with fantasies of regeneration and rejuvenation. Path 32 is the avenue of reincarnation on the descent of spirit into matter. The mind becomes introspective and turns away from the field of sensory

perception as a literal (and only) reality. The 'well' symbolizes the subconscious, the Fountain of Youth, or immortality. Alchemy was originally conceived as a life extension program, which renewed one both psychically and physically (Yesod and Malkuth). Perception.

2. Astral Plane: The strongest image for this path is a descent into the underworld. It is the beginning stage of mystical soul travel, during which one concentrates on development of the astral body. This facilitates the experiencing of reality through psychic senses, which are metaphorical perceptions through the agencies of sight, taste, touch, smell, and hearing. These so-called ESP phenomenon do not require the introduction of a new sense, but only this new metaphorical mode of apprehending through those with which we are familiar. This plane of Path 32 also represents the beginnings of devotional mysticism. Also included is the concept of karma, and the mating instinct. The combination of these two leads to the concept of the soul-mate, who cannot be found until this plane is experienced. Clairvoyance.

3. Causal Plane: The stability conferred by Saturn through this path helps promote concentration, particularly in relationship to images. These images arise spontaneously in the Astral Plane, and percolate through to normal ego-consciousness through this Path, with varying amounts of distortion. Focused concentration eliminates fuzziness. Both magick and psychoanalysis provide the means for focusing and following images through their transformations into an equilibrated state in Tiphareth (#6). Insight.

4. Archetypal Plane: Space/time creates certain limitations or boundary conditions of both human physical and psychic existence. Acceptance of these conditions and the form it produces are necessary for realization. With persistence, it is possible to attain perfection through rejuvenation. There is harmony among the Chakras of the physical body (CNS and endocrines). This produces a cosmic consciousness and a yearning for further experiences of soul travel on the path to God-Realization. Einstein's Special Theory of Relativity is relevant.

PART II: YETZIRAH.

THE ASTRAL OR EMOTIONAL PLANE

BASICS: YESOD

Book III: YESOD, Sphere of the Moon (Prototaxic Mode, shamanism, bioenergetics, emotional-sexual energy, prana, libido)

1. PHILOSOPHY

a. Initiation: Zelator

- b. **Ritual: The Value of Dreamwork**
- c. **Practical QBL: The Body of Light, Part 1; The Astral Body**

2. PSYCHOLOGY

- a. **Psychological Model: Mythical Living, Metaphorical Perception**
- b. **Archetypal Encounter: Lunar (or Feminine) Consciousness**
 - (1). **The Great Mother and Virgin Goddesses (Moon Magick)**
 - (2). **The Syzygy; Anima and Animus**
- c. **Mythic Correspondence:**
 - (1). **Athena and Hephaistos**
 - (2). **Artemis, Goddess of the Moon**
 - (3). **Psyche=Isis**

3. ASTROLOGY AND ALCHEMY

- a. **Secondary Progressions for Each Year of Life**
- b. **The Moon and the Lunation Cycle in Astrology**
- c. **Luna and the Albedo in Alchemy**

4. ORIENTATION/EXERCISE

- a. **Some Thoughts on the Phenomena of Astral Projection**
- b. **Seasonal Timing and Tides (Equinoxes and Solstices)**

YESOD, Sphere of the Moon

Yesod is the lunar world of the Great Mother. The Moon exemplifies the notion of dynamic equilibrium; it builds a firm foundation of stability based on cyclic change. This ebb and flow is characteristic of the Feminine Ms.teries and Lunar Magic. Emotional-sexual sphere.

The Moon of Yesod symbolizes fertility of body, soul, mind, and imagination. Its manifestation range from reflective and purely automatic impulses of generation to providing a source of inspiration. This fluctuating world of shape-shifting forms is know in mythology as ISIS, the Great Mother who contains all otherr goddesses. She represents the archetypal virginity of the feminine aspect of Godhead, its all-encompassing receptivity.

The characteristic experience of Yesod or the lower astral plane is a trance state of varying depth. Most commonly, ego, memory and control are weak or absent. There is dissociation from an ordinary state of consciusness. If memory of the imagery experience is retained, it may be misinterpreted or distorted, resulting in no effective assimilation into daily life. This is the disrete state where channeling phenomena occur.

***Receptivity* is the keyword for Yesod, which in the Four Worlds is represented by the following:**

- 1. Physical Plane: In the phenomenal world Yesod is characterized as electromagnetic fields, known by physicists to be the formative basis of matter. In the human body, the genitals represent Yesod. Instincts act on the body producing psychomotor automatisms, or the automatic gut-feel responses. Subconscious**

micromotions also account for the responses of such phenomena as the Ouija Board, dowsing, and pendulums. Astrologically, Yesod is the Moon or Luna. Gareth Knight links Pan to Yesod, stating that "*Pan gives the idea of archetypal strength which is characteristic of the etheric and of the action of the Moon on Earth.*" Pan's appearance here also indicates his other manifestations including panic reactions or attacks, nightmare, guilt, and disturbed erotic involvement. Hyperarousal.

2. Astral Plane: At this level one can tap the reservoir of life-force or pranic energy. Kundalini is a physical manifestation of the astral form of Yesod. The therapeutic practice of Bioenergetics resolves repressions and traumas releasing vitality. This level of lunar consciousness includes one's personal reactions to the complex environment. Yesod is a sphere of personal awareness. The personality is a unique complex of emotions and thoughts. This is the level of shamanism and Moon Magic-Wicca. It provides no access past the Astral Plane. Its negative effects include superstition, overemotionalism or reactivity. Astral psychism. Independence; idleness.

3. Causal Plane: From the psychological perspective, Yesod is the realm of Imagination and Archetypes. One may experience it through Trance or various Art forms. There is understanding of the contrasexual aspects of the anima and animus. There is release from possession and enhanced control of emotions through employing the imaginative technique of personification of divine forces.

4. Archetypal Plane: On the highest level, Yesod manifests as dream experiences and divination. This is the level of oracular prophecy.

HOD, the Sphere of Mercury (Reason, Intellect, Hermetism, Technology)

BASICS: HOD

HOD, the Sphere of Mercury

1. PHILOSOPHY

- a. Initiation: Practicus**
- b. Ritual: Science Fantasies and Technological Thought**
- c. Practical QBL: Synchronicity and Humor**

2. PSYCHOLOGY

- a. Psychological Model: Psychological Types of Personality**
- b. Archetypal Encounter:**
 - (1). Hermes (or Mercurius), the Trickster**
 - (2). Eros, as Puer**
 - (3). "Spirit"**

c. Mythic Correspondences:

- (1). Casteneda's Indian Sorcerer, Don Juan**
- (2). The "mad scientist" controversy**

3. ASTROLOGY AND ALCHEMY

- a. Mercury, Planet of Intellect**
- b. The Alchemical Mercurius**

4. ORIENTATION/EXERCISE

- a. A taxonomy of Altered States of Consciousness**
- b. Jungian Typology Test**

HOD, Sphere of Mercury

Hod is the Sphere of the rational intellect, and its ability for logical thought processes. In QBL, this Sphere is known as Splendour, the force through which man extends his will. It symbolizes the magnificent riches and grandeur of the mental faculty. Mental functions and thought work largely through the process of assication, for the purpose of relating that which previously was separate.

Hod represents the ability to communicate and peceive. It relates especially to academic and intellectual matters. Development of this Sphere enhances one's ability to communicate clearly and honestly. You are able to transmit your messages and ideas to others so that they are received without distortion. Multi-level communication includes intelligibility and gut-feeling awareness.

Since Hod rules logic, it also presides over our fields of philosophy, science and technology. These sciences and their applications on a practical level categorize discrete portions of the great unknown for specialized study. Adoppting the techniques and use of knowledge and skill helps us to function in a more effective manner. The intellect reflects the tonal quality of an individual.

1. Physical Plane: Cerebral tissue and nerves. Magical force, or prana. The electrical charge traveling through the nervous system. Hermes, or Mercury is the "chemical messenger." Hod also signifies Synchronicity, which is like meaningful coincidence.

2. Astral Plane: Hod represents the principles of relatedness, association, and interchange. Fluidic thought-processes may bring revelations to one who seeks to know himself. In this sense, Hermes rules the therapeutic explorations of depth psychology. The Magickal Image of Hod is the Hermaphrodite. The messenger of the Gods is this same androgynous Mercury who nightly brings our dreams. He appears negatively in those who feel perpetually "misunderstood." Truthfulness; dishonesty.

3. Causal Plane: Hod represents the forms of all philsophies and sciences, but is corresponded with Parapsychology, in particular. Because this area seeks

explanations for curious borderline phenomena, it forms a link between "hard" sciences and the occult. Hermeneutics, or the science of interpreting scriptures also comes under the influence of Hod. Self-analysis.

4. Archetypal Plane: Hod represents the archetypal Trickster, which manifests alternatively as magician, or clown. Thus, Hermes embodies the comic spirit functioning as a soul guide, enabling us to accept and laugh at our shortcomings. Hermes, as soul guide, , also opens up the way to the hidden depths of the unconscious, bringing us the messages of the Gods. Hermetic Philosophy began in the Third Century B.C., and revealed the "secrets of nature." It discovered a network of sympathies and antipathies which is categorized in correspondences. It is a Mystery and an initiatory transmission of that mystery. It maintains that with the help of this special knowledge, man can "become god." Hermetism is a revealed secret doctrine which communicates esoteric wisdom. This esoteric knowledge ensures salvvation, not through an initatory chain, but through proper interpretation, application and assimilation of sacred texts. This assimilation is equivalent to initiation.

NETZACH, Sphere of Venus (Values and human love)

THE BASICS: NETZACH

NETZACH, Sphere of Venus

1. PHILOSOPHY

- a. Initiation: Philosophus**
- b. Ritual: Divination**
- c. Practical QBL: Electromagnetic Fields and their relationship to the "Astral Plane"**

2. PSYCHOLOGY

- a. Psychological Model: Image, the Imaginal, and Imagination**
- b. Archetypal Encounter: Aphrodite**
- c. Mythic Correspondence:**
 - (1). Orpheus**
 - (2). Aphrodite**
 - (3). Circe**
 - (4). Tristan and Iseult, or Guinevere and Lancelot**

3. ASTROLOGY AND ALCHEMY

- a. Venus, Planet of Love**
- b. "Benedictas Veriditas"; the Blessed Greeness in Alchemy**
- c. Aphrodisiacs and Their Effects**

4. ORIENTATION/EXERCISE

- a. The Feeling Function in Jungian Psychology**
 - b. Brain Patterns and Consciousness**
-

NETZACH

In occult lore, Netzach is known as "Victory." It represents the dawning light of consciousness, and symbolizes the victory of light over the darkness of ignorance.

Netzach is the Sphere which embodies the inspirational force of the creative imagination. It signifies the achievement of perfection in both force and form. It also implies emotional perfection of the consciousness, through understanding of the inner meaning of physical processes (the sexual instinct, in particular).

Therefore, Netzach is functional in the establishment in the personality of values and ideals. A purpose of spiritual development of this sphere is to learn the distinction between ideal love and human love.

Aphrodite, the beautiful naked woman, represents the Anima, or soul. She is man's idea of the idealized fantasy, who would make his life complete, providing him with psychological wholeness through no effort of his own. When this archetype is projected in human relationships onto a mortal woman, there is certain disappointment to follow, unless a mature relationship can be developed. A spiritual goal of Netzach is, therefore, the internalization of this anima projection, which then functions as a guide to the inner realms of the subconscious.

- 1. Physical Plane: Attractiveness, beauty. Centripetal forces; that which pulls toward the center. Internalization. An ascetic life-style.**
- 2. Astral Plane: Emotion, passion, feeling. Romantic love; in courtly love, one is caught in a medieval psychological attitude which confounds divine and human love. Projection of religious attitudes onto the love one in worshipful adulation may end in an emotionally withdrawn individual who is extremely sorrowful and dissatisfied. When the rush of being "in love" evaporates, one seeks to rekindle the dynamics of the archetypal situation through transferring the projection onto yet another person. One has the ability to attract others, but not to maintain stable relationships. Unselfishness; lust, promiscuity.**
- 3. Causal Plane: With developing emotional sensitivity, one does not burden the partner by making her/him carry the projection of the Goddess/God. We take responsibility for our own unlivied life of the soul. We take up a disciplined relationship to the Anima or Animus; we learn to love both our ideal vision and our human partner, without confusing the value and function of each. This brings an increase in stability to all human relationships. Through commitment to an individual (with full consciousness of their shadow nature) there is acceptance of the mundane aspects of day-to-day life, rather than continual yearning to externalize the idealized vision of perfection.**
- 4. Archetypal Plane: Netzach manifests the mental imagery of creative imagination. It is inspirational in quality. It represents communion with one's self and others. It establishes patterns of appreciation and a value system with specific priorities, which encourage and maintain relationships.**

D. XIV, ART; Path 25

(The Parataxic Mode, Higher Astral Plane, metaphorms; visualization, visionary experience; Tantra; Holy Guardian Angel; I-it relationship; art)

THE BASICS: ART; Path 25

Path 25: ART/TEMPERANCE, Sagittarius

1. PHILOSOPHY

- a. Transitional Phase: Psychological Faith, Free Will, True Will
- b. Ritual: The Retirement Ritual, Invocation of the Holy Guardian Angel
- c. Practical QBL: The Many Expressions of Art

2. PSYCHOLOGY

- a. Psychological Model: Creative Visualization
- b. Archetypal Encounter:
 - (1). Artemis/Apollo, the Divine Twins
 - (2). The Muses and Artistic Inspiration
- c. Tantra, Sacred Sexuality

3. ASTROLOGY AND ALCHEMY

- a. The Meaning of Sagittarius in Astrology and Patheorking
- b. The Alchemy of the Central Nervous System (Neurotransmitters)
- c. The Alchemical Formula "Solve et Coagula"

4. ORIENTATION/EXERCISE

- a. Tapping Your Creative Potential (Northridge Development Scale)
- b. Rhythm: The Music of the Spheres (Correspondences)
- c. Tantric Lunar Resonance Meditation: Its Links with Tarot and the Western Tradition

ART

Path 25 traverses the higher Astral Plane, which is the realm of visionary experience of images and symbols. The Parataxic Mode is the designation given to this form of expression by psychologists. It denotes using symbols and images in a unique context. This is precisely what occurs in "Art." However, in art the symbols and images are no longer exclusively private, but may be shared with others.

Art expresses feelings and understanding. It is the fulfillment of sensation in an audible or visual form. It is an expression of an archetypal process in relationship with life. Art is

philosophy expressed in symbols and imagery. or the sensation function, art serves the same purpose that science does for thinking. Other analogies for art include philosophy and psychology for the intuitive function, and the emotions of human society for feelings.

The characteristic procedures of the Parataxic Mode include archetype, dreams, myth, ritual, and art. Art forms include dance, drama, music, painting, ceremonial magick, alchemy, perfumery, sculpture, poetics, etc.

As "Art," Path 25 presents us with a new quality in our vision of reality. This is the realm of metaphors, where our brain images reality and the universe in its own structural terms. This surreal vision attempts to portray the working of the subconscious mind. In QBL, it is considered the narrow way between Death and The Devil, trial and temptation. The artist attempts to balance his inner turmoil through a transforming "Work" or "Opus." History is replete with examples of this often painful process. But it can be joyful also.

1. Physical Plane: Path 25 represents both a physical and psychological harmonizing or equilibrating process, in which instability is balanced through disciplined work. It is a blending of opposites, culminating in unification and transformation through will. It indicates the reversibility or sublimation of instinctual energies. Included are the performing arts, especially ceremonial or High Magick, with its blending of the energies of Sun and Moon. This process is designed to establish contact with the Self.

2. Astral Plane: The image for this card represents the exchange of male and female energies between husband and wife. Sublime, regenerate love creates the "magical child" which comes into its own in Tiphareth. It also expresses love for one's Angel or spiritual guide, without which no progress is possible. There must be a surrender to the direction of the inner Master, in order to establish a connection with the Light. Therefore, visualization practice is critical.

3. Causal Plane: The formula of this path is V.I.T.R.I.O.L., *Visita Interiora Terrae Rectificando Invenies Occultum Lapidem* ("Visit the interior parts of the earth; by rectification thou shalt find the hidden stone"). This has nothing to do with the "hollow earth" theory, but means to plumb the depths of the subconscious by turning inward. This represents the opening of the ego-Self Axis, as termed by psychologists. It is living the high ethical standard required by the Self as preparation for receiving the Light of Tiphareth. Increase in Self-knowledge.

4. Archetypal Plane: Consecration of the personality to the Great Work or Self. A visionary mode is a grace conferred on the gifted artist. The roots of poetry and painting lie in prophecy and chanting and sympathetic magic. The Self imposes trials and tests to transform the consciousness of the aspirant. This is True Will. The transformations appear in the form of the I-it relationship, rather than the I-Thou of Syntactic Mode (Tiphareth).

PART III, BRIAHA, the Causal Plane of the Mind

TIPHARETH, Sphere of the Sun

**(Syntactic Mode or Self-Realization; the Causal Body;
I-Thou Relationship; Alpha; Meditation and Peak
Experience)**

THE BASICS: TIPHARETH

TIPHARETH, Sphere of the Sun

1. PHILOSOPHY

- a. Initiation: Minor Adept**
- b. Ritual: Knowledge & Conversation with the Transcendent Function; Coniunctio; The Royal Marriage and Sex Magick**
- c. Practical QBL: A Description of Meditative and Exalted States; The Body of Light, Part 2: the Causal Body**

2. PSYCHOLOGY

- a. Psychological Model: Self-Actualization and Well-Being**
 - (1). The Heroic Quest for Self Development**
 - (2). The Syntactic Mode and Creativity**
 - (3). Varieties of Spiritual Rebirth**
 - (4). Androgyny and Individual Wholeness**
- b. Archetypal Encounters:**
 - (1). Hero/Heroine**
 - (2). The Divine or Magickal Child**
 - (3). The Puer/Senex Archetype**
 - (4). Puella and the Wise Old Woman**
 - (5). Puer/Puella Relationships of Perpetual Adolescence**
 - (6). The Wounded Healer and the Mana Personality**
- c. Mythic Correspondence:**
 - (1). Solar Gods: Ra, Osiris, Apollo, Mithras, Christ**
 - (2). The Vegetation Mysteries of Dionysus and Attis**
 - (3). Eros and Psyche, an Archetype of Relationship**
 - (4). Ulysses or Odysseus, Wounding and Healing**

3. ASTROLOGY AND ALCHEMY

- a. The Meaning of the Progressed Sun in Astrology**
- b. The Alchemical Mode of Imagination (Unus Mundus/Holistic Worldview)**
- c. The Diamond Body and Circulation of the Light (Vector Equilibrium)**

4. ORIENTATION/EXERCISE

- a. Re-Visioning Middle Pillar Exercise: Torus/Twistor Model**
 - b. Psi Physiology**
-

TIPHARETH, Sphere of the Sun

Tiphareth is the Sphere of Beauty, and Perfect Equilibrium. It is the gateway to the Causal Plane of Universal Mind, or the Self. The translation from the Astral to the Causal Plane is as dramatic as that between Physical and Astral. It requires the development of a more subtle aspect of the Body of Light, so the soul may experience that level of awareness. The Causal Body is called a Diamond Body.

Tiphareth represents a comparatively high initiation for religious, or mystical man. Here the entire life is dedicated to spiritual devotion, in a 24 hour-a-day ritual. This initiation to a Way of Life is experienced as a death for the ego. It leads to spriritual rebirth and ascension to higher imaginal realms in mystic ecstasy. The Great Work becomes the priority of one's existence.

The spiritual bud formed in Yesod, flowers in Tiphareth in Enlightenment. Many systems describe this grade through various images; Self, Holy Guardian Angel, Philosopher's Stone, Universal Mind, Brahm.

1. Physical Plane: Tiphareth represents the Vision of the Harmony of Things, and is the point on the Tree of Life of maximum equilibration. This same formula is represented in mathematics as the Vector Equilibrium Matrix. The Cube is a magickal symbol for Tiphareth. The VEM is an octahedron-within-a-cube, which is also the atomic structure of the diamond.

2. Astral Plane: A contemplative life in harmony with spiritual principles becomes the primary ritual. The magical images for Tiphareth include a magickal or divine child; a resplendent king, and a sacrificed God. These represent stages in the Mystery of Death and Rebirth. Tiphareth also corresponds with the Egyptian god, Osiris. Initiation on the path to God-Realization turns one's attitudes upside-down. Devotion to the Great Work; Pride.

3. Causal Plane: In the Causal, the Vision of Haromony indicates that all spiritual progress comes through the principle of Love. It implies the highest ethical standards in both behavior and thought. The Syntactic Mode means one has a precise cognitive awareness concerning the relative value of mystical experiences, and has the verbal creativity for expression. Thus psychology can express in words what mystics experience through intuition. Syntactic Mode includes Tantric sex, creativity, alpha states, etc. It verges of knowledge Ecstasy, but is mainly inspirational in quality.

4. Archetypal Plane: Tiphareth is the Royal Marriage of the Soul and the Lord. The projections of anima or animus have been returned to their proper level in the unconscious. The King and Queen are united: Spirit and Soul, distinct but conjoined. The aspirant enters a period of exploration of soul by spirit for psychic fecundation. This union with the Self, uniting all opposites is an illumined lunacy.

Tiphareth represents the halfway point on the continuum of spiritual development. It indicates the ability to withdraw the attention from outside to inside and hold it there. One

contemplates the "radiant form" internally. Self-Realization opens the beginning of the path to God-Realization through Grace, along Path 13.

GEBURAH, Sphere of Mars

THE BASICS: GEBURAH

GEBURAH, Sphere of Mars

1. PHILOSOPHY

- a. Initiation: Major Adept**
- b. Ritual: Martial Arts and Discipline; Energy, Courage, Cruelty**
- c. Practical QBL: Enflamment, Synergetics**

2. PSYCHOLOGY

- a. Psychological Model:**
 - (1). Stress Management**
 - (2). Anger Management**
 - (3). Pathologizing**
- b. Archetypal Encounter**
 - (1). Ares, Lord of War and Peace**
 - (2). Themis, Lady Justice**
- c. Mythic Correspondence:**
 - (1). Harmonia, Child of Ares and Aphrodite**
 - (2). Horus, Lord of the New Aeon**

3. ASTROLOGY AND ALCHEMY

- a. Mars in Astrology**
- b. The Metal Iron in Alchemy and Physiology**

4. ORIENTATION/EXERCISE

- a. Stress Management Outline**
 - b. Tai Chi, as a Martial Art and Meditation**
-

CHESED, Sphere of Jupiter

THE BASICS: CHESED

CHESED, Sphere of Jupiter

1. PHILOSOPHY

- a. Initiation: Adeptus Exemptus
- b. Ritual: "Seeing Through," Metaphorical Perception
- c. Practical QBL: Discernment and Compassion

2. PSYCHOLOGY

- a. Psychological Model: A Moral Archetype, Ethics; Obedience
- b. Archetypal Encounter:
 - (1). Zeus/Hera, An Archetype of Marriage
 - (2). Athena, Daughter of Zeus
 - (3). Poseidon, King of the Sea
- c. Mythic Correspondence:
 - (1). The Many Liasons of Zeus
 - (2). The Birth of Athena

3. ASTROLOGY AND ALCHEMY

- a. Jupiter in Astrology
- b. The Metal Tin in Alchemy

4. ORIENTATION/EXERCISE

- a. Seeing Through the Monotheistic Model of Consciousness
- b. Psychology and Religion

II. THE HIGH PRIESTESS: Path 13

THE BASICS: THE HIGH PRIESTESS

THE HIGH PRIESTESS: Path 13

1. PHILOSOPHY

- a. Transitional State: Lunar Twilight Past Enlightenment
- b. Ritual: Soul-Making; Into the Void
- c. Practical QBL: A Polytheistic Psychology of the Gods

2. PSYCHOLOGY

- a. Psychological Model: Anima Consciousness
- b. Archetypal Encounter:
 - (1). The High Priestess
 - (2). The Blessed Virgin Mary
- c. Mythic Correspondences:

- (1). Artemis, Eternal Virgin**
- (2). Isis and Her Veil**
- (3). Shekinah, God's Consort**
- (4). Sophia, Goddess of Wisdom (Sapientia Dei)**

3. ASTROLOGY AND ALCHEMY

- a. The Meaning of the Progressed Full Moon in Astrology**
- b. Anima Mundi, the World Soul in Alchemy**

4. ORIENTATION/EXERCISE

- a. Memory: Concepts on Storage and Retrieval**
- b. Psi Phenomena and Spiritual Growth (Siddhas)**
- c. The 3rd Eye (Pituitary/Pineal) and the Reticular Activating System**
- d. Meditation = Soul-Making**

E. DAATH, the Invisible Sphere of Knowledge

THE BASICS: DAATH

DAATH, the Invisible Sphere of Knowledge

1. PHILOSOPHY

- a. Initiation: Babe of the Abyss**
- b. Ritual: Crossing the Abyss of Transcendent Imagination**
- c. Practical QBL: Sacrifice & the Dark Night of the Soul**

2. PSYCHOLOGY

- a. Psychological Model: The Unconscious as the Underworld**
- b. Archetypal Encounter:**
 - (1) Hades/Dionysus, a Composite Godform**
 - (2). Persephone, Resplendent Queen of the Underworld**
- c. Mythic Correspondence:**
 - (1). Baphomet and the Templars**
 - (2). The Sirius Mystery--Is it Serious?**

3. ASTROLOGY AND ALCHEMY

- a. Pluto in Astrology**
- b. The Mathematical Model of Vector Equilibrium**

4. ORIENTATION/EXERCISE

- a. (Non-Drug) Experiential Psychedelia**
 - b. Concerning Entropy and Physical Immortality**
-

F. THE SUPERNAL TRIAD: Binah, Chokmah, and Kether

THE BASICS:

1. PHILOSOPHY

- a. Initiation: Master of the Temple, Magus, and Ipsissimus
- b. Ritual: God-Realization (Union)
- c. Practical QBL: The Crown of Creation, Qabalistic Cosmology

2. PSYCHOLOGY

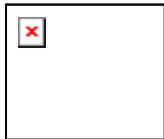
- a. Psychological Model: The Sat Guru or living Saint; Holy Guiding Spirit
- b. Archetypal Encounter: 5th Plane Mystics or "Sons of God"
- c. Mythic Correspondences
 - (1). The 10 Sikh Gurus
 - (2) Sufi Saints
 - (3). Christian Myticism

3. ASTROLOGY AND ALCHEMY

- a. Saturn, Uranus, and Neptune (Karma & Transformation)
- b. Alchemical Transformation & Spiritual Liberation

4. ORIENTATION/EXERCISE

- a. Higher Jnana States
- b. Completion of the Great Work



PART I: ASSIAH, THE PHYSICAL PLANE

Malkuth

Title: Malkuth, the Kingdom

Magical Image: A Young Woman, crowned and throned.

Position on the Tree: Base of the Pillar of Equilibrium, a Pendant

Yetziratic Text: *The Tenth Sephirah is called the Resplendent Intelligence because it is exalted above every head and sits upon the throne of Binah. It illuminates the splendors of all the Lights, and causes an influence to emanate from the Prince of Countenances, the Angel of Kether.*

Kabbalistic Titles: The Gate, The Gate of Death, The Gate of Tears, The Gate of Justice, The Gate of Prayer, The Gate of the Daughter of the Mighty Ones, The Gate of the Garden of Eden, The Inferior Mother, the Queen, Malkah, the Bride, Kallah, the Virgin.

God Names: *Adonai ha Aretz, or Adonai Malekh*

Archangel: Sandalphon

Choir of Angels: Ashim, Souls of Fire

Mundane Chakra: *Cholem ha Yesodoth*, Sphere of the Elements

Spiritual Experience: Vision of the Holy Guardian Angel

Virtue: Discrimination

Vice: Inertia

Microcosm Correspondence: The Feet, the Anus, Root Chakra

Symbols: Altar of the Double Cube, Equal-armed Cross, the Magic Circle, the Triangle of Art

Tarot Cards: The four Tens

Colors: Citrine, Olive, Russet, and Black; or Earthy Green

Magical Weapon: the Pantacle or Disk



"The Grail Quest," c1998

Introduction to Malkuth

326.02 All that is physical is energetic.

All that is metaphysical is synergetic. (B. Fuller, 1976)

In our approach to true self-knowledge via the Tree of Life, we begin with Malkuth, the Sphere of Earth, the Four Elements, and the Physical Body. At this initial point on the Path of Return, we seek the wisdom of nature and develop a zealous dedication to the principles of the Great Work. We come to understand the value and necessity of placing our self-unfoldment as our main priority. Everything in nature desires to return to its root, and our soul desires attachment to its Root on high in Kether.

But mysticism is not meant for everyone, and only earnest seekers will continue to be motivated. When we know we are in the dark, we begin to consciously seek the Light. To climb the spiritual ladder, we ascend from one qabalistic Universe to the one above it, from the physical to astral to causal to archetypal. We attach our mind to that which is on high--attachment to the spiritual. If you wish to ascend, you must go from one stage to the next, holistically incorporating more levels of awareness as you go.

To begin, a basic understanding of physics, physiology, chemistry, botany and biology is helpful. We get to know the scientific basis of reality before we delve into the metaphysical. This is the realm of empiricism and phenomenology. We begin with the things of the world, the things that can be perceived by our senses. Our study replaces ignorance of these subjects, and helps us overcome magical superstitions about "how things work."

The Holy Grail of science is the Grand Unified Theory of Everything. We study the objective universe, realizing that all theories about its nature are still hypothetical. As in the case of all observations, our senses are prone to distortions, and we need to learn about the limitations of our sensory apparatus, as well as tricks our mind can play on us. Biofeedback is effective for learning biophysical control; neuralfeedback teaches control of brainwave states. Through all these means we seek to understand the apparently hidden laws of material existence.

Everything we can know about our experience comes to us through sensory experience or our mental sensory impressions of these sensations. Experiential metaphors--what experiences are like--are always clothed in quasi-sensory metaphors of sight, sound, feeling, etc. All our understanding of the laws of life is grasped through this sensory modality. Through practice and study we can cultivate a more accurate interpretation of

inner sense reports. We develop our ability to concentrate or focus attention, which prepares us for more subtle understanding.

Learning about the physical plane through science helps us prepare intellectually for the direct experience of the essential unity of all things. The formation of the universe and its continual unfolding is a great mystery. At the most fundamental levels, the differences between organic and inorganic matter vanish. Thus there is an underlying unity to mineral, plant, animal, and human makeup.

The primary forms of energy in physics are radiation, fluids, gases, and solids. Ancient symbolism referred to them as fire, water, air, and earth. These four elements are assigned to Malkuth, as they form the basis of physical reality. Malkuth means the Kingdom, and everything in the kingdom is a combination of these primary forms of matter, which is more fundamentally energy, always in motion.

However, primal Light or Spirit is the primary substance of every form. Matter can be considered somewhat like "frozen" or crystallized light. Spirit is in Matter and reflects the qabalistic aphorism "*Kether is in Malkuth.*" It is a materio-spiritual Creation. Gradually we learn to perceive this directly as our consciousness ascends the stations of the Tree of Life, from outer appearances to their inner Reality. The work of this sphere includes turning outward observations into inward insights.

We learn to ground the force of the spirit in daily life. Limitations in perception give way to the clarity which comes from an informed and experienced position. We can engage in any activity when we realize nothing but God's presence in it. Life becomes a meditation, the practice of the presence of God.

At this stage of re-dedication, we should reevaluate our attitude toward our body, making sure to give it the essential love and care which will enable us to continue the work of transformation. There are ordeals and periods of great tension in the work when pairs of opposites within us are attempting to reconcile. A strong immune system is helpful at this time, since the tension is physically tangible, adding to any normal load of stress.

Properly prepared and conditioned (such as through yoga or Tai Chi), the body will subconsciously cooperate in the Great Work. The chakras symbolize six planes of subtle matter in the body which are material forces. Engaging in worldly activities, our mind is fixed on spirituality. Following the advice of old qabalistic masters, we affix our mind to each physical thing, elevating and binding it on high. When we cannot grasp a difficult subject we are at the level of Malkuth, but when we follow through and grasp it, our understanding binds it to Binah and attaches the two together.

God can be found in all things, even our pain and struggles. When we realize this, we can remove the garment of our physicality and let our soul and spirit soar, by attaching it to God through meditation. Then we come to see the Divine Presence in all things. The whole earth becomes filled with the radiance of the Divine Presence, and this raises or elevates our thoughts from the lower world to the transcendental realm. Man is a microcosm, and True Light is within us. The infinite is contained in the finite. Our body, the mortal frame is a house for the soul.

The Sephiroth are the Divine Emanations which God created to direct the universe. Meditate that God is in front of you in the 10 Spheres of that Universe, and contemplate that infinite greatness. All spheres come together in the lowest one which is Malkuth. It is associated with the Divine Presence, or immanence of God, known in Kabbalah as the Shekinah, in-dwelling feminine counterpart of God.. This is why Malkuth is called "The Bride."

The very elements of our bodies were born in the explosion of some supernova long ago. Our carbon atoms, molecules, the various minerals and salts in our body are obviously fundamental to our existence. We convert plant matter into ourselves through a process of cold fusion we call digestion. In our meditation we can include in our self-concept the animal, vegetable and mineral universes, and through that meditation bind them all to God.

The next stage is to ascend to the First Firmament (The Universe path), ascending with the soul alone, separating yourself from the body, "divesting the physical." Expand the firmament on all sides until it fills your whole mind and climb until you reach the world of Angels (Yetzirah, YESOD), and then the world of the Throne (Briah, Tiphareth).

Every stage looks final, until it is transcended. Every plane appears to be the very last, since that is as far as our vision can penetrate. Many schools of meditation confuse Universal Mind, which is clearly a causal experience, with the Supreme Deity. Every stage contains false copies of the highest spiritual stages, subtle planes of transcendent worlds.

When we focus on a definite purpose, we override all automatic responses that tend to destroy it. So it is in meditation when the body would draw our consciousness down with itches, pains, involuntary movement and

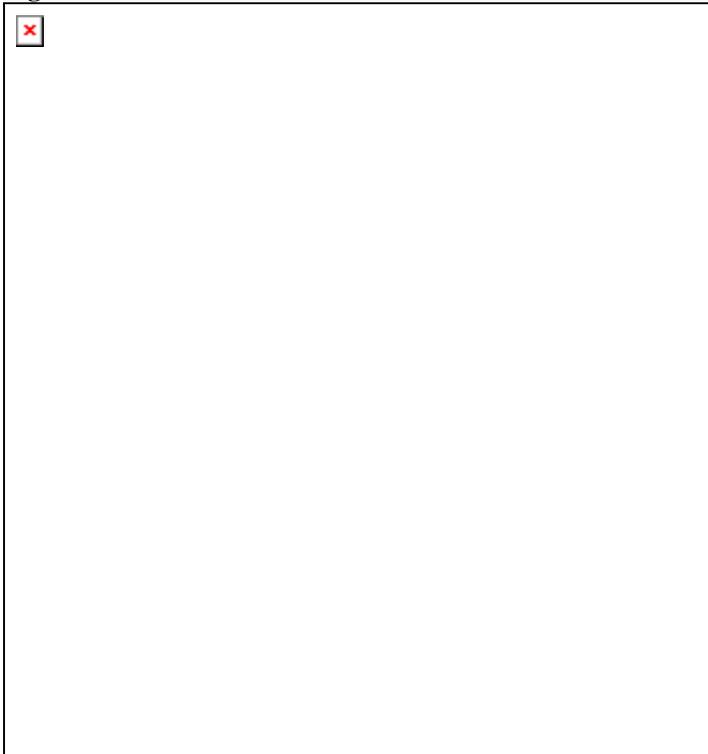
other distracting sensations. If we continue to focus we become transparent and all elemental forces in the body are purified.

Rest and patience, and many ascents and descents in meditations are required to establish new patterns in the physical body. Spiritual experiences must be digested or assimilated to gain their full value, and we must not "lust for results." The results are on-going even when imperceptible, if we remain punctual in our meditation.

When we can still the body and the senses and collect our consciousness at the Eye Center, we can cross the realm of the stars (Path 32, the Universe) at the threshold of the Astral Plane to move toward the inner Sun and illumination of the Causal Plane. But progress is one small step at a time.

In Malkuth, we identify with what has come to be known as Gaia-consciousness. Expanding our awareness to that of the earth's biosphere we learn compassion for all life forms. This leads many to choose a vegetarian lifestyle, since 6-10 vegetarians can live on the resources consumed by one omnivore. Another consideration is the population explosion which threatens the whole ecology, so responsible breeding also becomes a consideration. We may not be able to heal the planet, but we can improve our personal relationship with it by responsible choices such as recycling and low-impact lifestyles.

Malkuth, as the sphere of physical sensation, incites to action. Alchemically, this has four phases. The earthy phase is our recognition of our ignorance and delusions, which allows us to seek wisdom. The watery phase is one of purification from emotional colorations. Fire refers to mental activation, wherein we dedicate our reasoning and analytical faculties to the earnest search for truth. The airy aspect, or stage of incandescence, marks the enlightenment of the Astral. But remember, the densest forms of earth are essentially one with the Light.



The Four Elements

The most simplistic division of the circle, as a symbol of wholeness, is into four quadrants. This four-fold division is an expression of the potential characteristics of balance, solidity, and regularity. Mankind distinguishes four seasons, four directions, and four quarters of the heavens.

Since this quaternary system of orientation is so basic, it is not surprising that the early Greek philosophers came to the conclusion that all things are made through the combination of the four fundamental materials: fire, water, air, and earth. Through the years, various contemporary interpretations have been corresponded with these original elements, but their qualities remain consistent:

Fire Nitrogen Electricity "Strong force"
Water Hydrogen Liquids "Weak force"
Air Oxygen Gases Electromagnetism
Earth Carbon Solids Gravity

Fire and air express masculine qualities. They are active, positive and creative. Water and earth are feminine in nature, being passive, negative and receptive. Fire is known as the spiritual element, and is associated with aspiration, energy, purification, and transformation. Water is the universal medium, the unfathomable depths of the human subconscious. Air is associated with the breath, soul, and flights of the imagination. Earth expresses solidity and practicality, the physical body. The ideal, or perfected man is a balanced combination of these forces.

When matter is conceived as consisting of four divisions, the psyche is also perceived in a similar structure. In Magick, this fourfold division is expressed as the Four Powers of the Sphinx. The Sphinx is a mythological creature, whose androgynous nature combines both masculine and feminine elements, animal and human elements.

The magician seeks an equilibrated development of the forces of nature. This balanced strength is expressed in the axiom *"To Will, to Dare, to Know, to keep Silent."* These four powers are corresponded with the Fixed Signs of the Zodiac:

To Will Taurus Earth Bull patience, solid enegy
To Dare Leo Fire Lion strength and courage
To Know Aquarius Air Eagle swift, soaring intelligence
To Keep Silent Scorpio Water Man subtlety, spiritual wisdom

Aleister Crowley also corresponded the powers of the Sphinx with forms of Yoga:

Bull Karma Yoga Life
Lion Raja Yoga Light
Eagle Bhakti Yoga Love
Man Gnana Yoga Liberty

In *The Book of Wisdom or Folly*, he also added this note of caution: *"Yet mark thou well how these interfuse, so that thou mayst accomplish no one of the Works separately. As to make Gold thou must first have Gold (it is the Word of the Alchemists) so to become the Sphinx thou must first be a Sphinx."*

Buckminster Fuller found a way to model all objects with the tetrahedron. A tetrahedral unity models everything. As a four-fold object, it is simply the minimum structural system in the Universe. It is stability incarnate, a nest of principles. A cross-legged meditator forms a tetrahedron. According to Fuller:

"There is a fourfold twoness: one of the exterior, cosmic, finite ("nothingness") tetrahedron--i.e. the macrocosm outwardly complementing all ("something") systems--and one of the interior microcosmic tetrahedron of nothingness complementing all conceptual systems." (*Synergetics 2, 223.07*)

"Omnidirectional Halo"

The Quest we initiate as seekers in Malkuth is not without its consequences, according to P.D. Ouspensky:

"The Sphinx with its riddle...devoured those who approached it and could not solve the riddle. The allegory of the Sphinx means that there are questions of a certain order which man must not approach unless he knows how to answer them. Having once come into contact with certain ideas man is unable to live as he lived before; he must either go further or perish under a burden which is too heavy for him."

One of the biggest clues of this stage comes from Art and from Gestalt Therapy: it is that the figure (mankind) is not studied independently from the ground (the Universe). And this leads us up the first path on the Way of Return: The Universe.

THE HOLISTIC QABALA: A CONTEMPORARY GUIDE TO MAGICK

by Philo Stone (aka Richard and Iona Miller), ©1982

BOOK I:

Sphere 10: MALKUTH, the Earth



MALKUTH: Table of Contents

I. ASSIAH, THE PHYSICAL PLANE

BOOK I: MALKUTH, The Sphere of Earth:

1. PHILOSOPHY

- a. Initiation: Neophyte (The Value and Meaning of Initiation)**
- b. Ritual: On the Practice of Ritual and Ceremony**
- c. Practical QBL: The Holographic Concept of Reality**

2. PSYCHOLOGY

- a. Psychological Model: The Path of Individuation**
- b. Archetypal Encounter:**
 - (1) Persona, the Public Mask**
 - (2) The Shadow, Your Unlived Life**
 - (3) The Double and Immortality**

- c. Mythic Correspondence:**

- (1) Hestia, Goddess of the Hearth**
- (2) The Kore, Maiden Bride**
- (3) Demeter, Earth Mother**
- (4) Narcissus, the Self-Absorbed**
- (5) Pan, the Nature God**
- (6) Gaia, Primal Matter**

3. ASTROLOGY & ALCHEMY

- a. Astrological Cycles of Unfolding (Natal Chart = Prima Materia)**
- b. Alchemical Imagination: Making Psyche Matter (Mortification)**

4. ORIENTATION & EXERCISE

- a. The Banishing Ritual and Psychological Orientation**
- b. Psychic Equilibrium and the Middle Pillar Exercise**
- c. Middle Pillar Exercise and Synesthesia: Cross-Modal Sensations**

BOOK I: MALKUTH, Sphere of Earth

PREFACE

Malkuth means "the Kingdom." All gross matter may be considered to express the qualities of the four elements: fire, water, air, and earth. In more modern terms, there are four fundamental natural forces. They are "strong" force, "weak" force,

electromagnetism, and gravity. "Strong" force holds the nucleus of the atom together, contributing to the stability of matter; "weak" force occurs in many natural processes, but the most familiar is radioactive decay. Malkuth is the Sphere of Earth.

The basis of any stable magickal development is a maintenance of physical health through proper diet and exercise. Wrong diet, especially eating at inappropriate times is a major cause of physical, emotional, and mental imbalance.

Opinions differ on whether man's natural diet should include meat. However, what serious aspirant would want to kill any living creature for food or sport? The advantages of a meatless diet include a lower incidence of hardening of the arteries, and less uric acid, steroid, and antibiotic consumption. Supplements of vitamin B-12, brewer's yeast, lecithin, and minerals will ensure optimal physical and mental performance.

Stress management programs have received a lot of media attention, lately. The best stress management programs consist of a combination of physical exercise and meditation. One works on the sympathetic nervous system, and the other on the parasympathetic system.

Development of body-awareness is important for "coming to wholeness." There are many techniques to choose from. A disciplined physical fitness routine might include any of the following: aerobics, "chopping wood and carrying water," Tai Chi, hatha yoga, or dance.

In the four worlds, Malkuth is represented by these correspondences:

- 1. Physical Plane:** The four natural forces. Resonance. Sensory awareness. Diet and exercise. Level of observation in Physics; matter
- 2. Astral Plane:** The Magickal Image is a Young Woman, Crowned and Throned, who is Demeter/Persephone, a dual form of the Goddess. She is at once Earth Mother and her daughter (the Kore), the archetypal maiden. This young bride becomes the Queen of the Underworld, or subconscious.
- 3. Causal Plane:** The Personal Unconscious includes the memories and repressed material which must be raised to consciousness. These conflicts must be resolved before one is ready to confront the Collective Unconscious. These repressed contents require a specific technique designed to "raise" them.
- 4. Archetypal Plane:** Initiation into a Mystery has to do with "*initium*;" an image of "going within, suddenly," as in the abduction of Persephone into the Underworld, below the threshold of consciousness. Her "going within" changed her in a fundamental way, suddenly and forever.

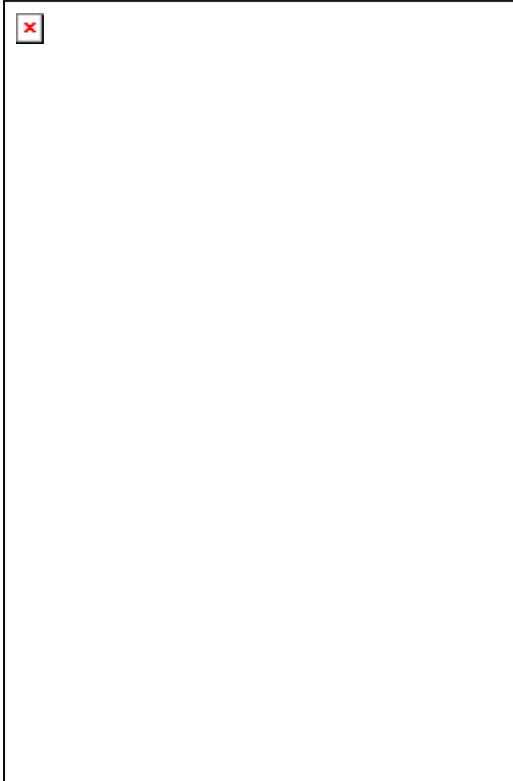
Aleister Crowley also corresponded the powers of the Sphinx with forms of Yoga:

Bull	Karma Yoga	Life
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INSERT PICTURE (OEdipus and the Sphinx (Louvre, Paris)).

INTRODUCTION



In our approach to true self-knowledge, via the Tree of Life, we begin with Malkuth, the Sphere of the Earth, the Four Elements, and the Physical Body. At this point we seek the wisdom of nature and develop a zealous dedication to the principles of the Great Work. We come to understand the value and necessity of placing our self-unfoldment as our main priority.

"To do this we must begin with the things of this world; the things that can be perceived with the physical senses. ...The objective universe and all it contains are the initial subjects of occult study." To this end a knowledge of physics and physiology are basic. We seek an understanding of the apparently hidden laws of material existence.

"Everything of knowledge we possess comes to us through sense experience and our mental impressions of these sensations. Whatever of the laws of life we grasp must be apprehended in this way." Through practice and study we can cultivate a more accurate interpretation

of inner sense reports. We develop our ability to concentrate or focus attention, which prepares us for more subtle understanding.

"Knowledge of the physical plane, including the findings in the field of the natural sciences, prepares us intellectually for a direct experience of the essential unity of all the seemingly separate things in this world. Whether the body considered is that of a mineral, plant, animal, or human being, its seemingly separate form is the result of a focus of various energies."

"The primary forms these energies take are classed in physics as radiant energies, fluids, gases, and solids. Ancient symbolism referred to them as fire, water, air, and earth, the four elements assigned to Malkuth. Everything in the Kingdom is a combination of various proportions of these primary forms of matter, which are in continuous motion."

However, Light or Spirit is the primary substance of every form. Spirit is in matter and reflects the Qabalistic aphorism "Kether is in Malkuth." Gradually we learn to perceive this directly as our consciousness rises from earth to heaven, from outer appearances to the inner Reality. Then we learn to ground the force of the spirit in daily life. Limitations in perception give way to clarity.

At this stage of re-dedication we should re-evaluate our attitude toward our body, making sure to give it the essential love and care which will enable us to continue the physical reconstruction work of transformation. There are periods of great tension in the work when pairs of opposites are attempting to reconcile. A strong immune system is helpful at this time, since the tension is physically tangible, adding to any normal load of stress.

The body will subconsciously cooperate in the Great Work. "When attention is focused toward a definite purpose and we set a process in motion which tends to destroy all ideas, responses and automatic activities that are not in harmony with that intention. When the attention or intention is directed toward becoming a servant of the Light, processes are initiated which rid us of all that stands in the way of transparency to the Superconscious Will."

The elemental forces will work in the body, dissolving resistances, and purifying the desire nature. Rest and patience are required, for this takes time to establish the new pattern in the physical body and become stabilized. Studying, practicing and meditation require a process of assimilation or digestion to gain their full value. Thus, the admonition not to "lust for results."

Malkuth, as the sphere of physical sensation, incites to action. Alchemically, this has four phases. The earthy phase is our recognition of our ignorance and delusions, which allows us to seek wisdom. The watery phase is one of purification from emotional colorations. Fire refers to mental activation, wherein we dedicate our reasoning and analytical faculties to the earnest search for truth. The airy aspect, or stage of incandescence (also known as imaginal faculty), marks the receiving of an illumination, or direct experience of the Astral. The densest forms of earth are essentially one with the Light.

THE FOUR ELEMENTS

The most simplistic division of the circle, as a symbol of wholeness, is into four quadrants. This four-fold division is an expression of the potential characteristics of balance, solidity, and regularity. Mankind distinguishes four seasons, four directions, and four quarters of the heavens.

Since this quaternary system of orientation is so basic, it is not surprising that the early Greek philosophers came to the conclusion that all things are made through the combination of four fundamental materials: fire, water, air, and earth. It isn't hard to see why early man virtually worshipped the elements as natural forces. Mankind is constantly subjected to natural disasters through earthquake, fire, flood and wind. Over the years, various contemporary interpretations have been corresponded with these original elements, but their qualities remain consistent.

Fire, Nitrogen, Electricity, "Strong force"
Water, Hydrogen, Liquids, "Weak force"
Air, Oxygen, Gases, Electromagnetism
Earth, Carbon, Solids, Gravity

Fire and air express masculine qualities. They are active, positive, and creative. Water and earth are feminine in nature, being passive, negative, and receptive. Fire is known as the spiritual element, and is associated with aspiration, energy, purification, and transformation. Water is the universal medium, the unfathomable depths of the human subconscious. Air is associated with the breath, soul, and flights of the imagination. Earth expresses solidity and practicality, the physical body. The ideal, or perfected person, is a balanced combination of these forces.

When matter is conceived as consisting of four divisions, the psyche is also perceived in a similar structure. In Magick, this fourfold division is expressed as the Four Powers of the Sphinx. The Sphinx is a mythological creature, whose androgynous nature combines both masculine and feminine elements.

The magician seeks an equilibrated development of the forces of nature. This balanced strength is expressed in the axiom, "To Will, to Dare, to Know, to keep Silent." These four powers are corresponded with the Fixed Signs of the Zodiac:

To Will, Taurus, Earth, Bull, patience, solid energy
To Dare, Leo, Fire, Lion, strength and courage
To Know, Aquarius, Air, Eagle, swift, soaring intelligence
To Keep Silent, Scorpio, Water, Man, subtlety, soaring intelligence

*

LOVE IS THE LAW

*I see the shadow fall the other side of the line.
Within the Dithyramb, I love the Divine.
I strive to slay the dog-faced demons of doubt.
My dagger gleams to banish them from about.*

**LOVE IS THE LAW, LOVE UNDER WILL!
THERE IS NO LAW BEYOND "DO WHAT THOU WILT."**

*Toward the King's Chamber my journey begins.
May the 22 Guardians allow me therein,
to the inspiration of the spiritual Sun.*

*The Tree's branches are roots in Heaven.
The roots, as branches they grow
into the Hermetic Axiom:
"As Above, so Below."*

**LOVE IS THE LAW, LOVE UNDER WILL.
THERE IS NO LAW BEYOND "DO WHAT THOU WILT."**

*What am I doing? I'm lifting the veils
Of infinite mystery that life entails.
Where will it take me? Heaven and Hell
Must be balanced on earth before I can tell.*

*The pathos I choose fills my cup.
I will always be "I", but there's more, higher up
to descend in the splendor of a rainbow.*

* * *

1. PHILOSOPHY

a. Initiation: Neophyte, (The Value and Meaning of Initiation)

Initiations may be roughly divided into 3 types: shamanistic, magical, and mystical. The meaning of initiation arises from the death/rebirth paradox. A ritual death opens the way for a new birth, but not without the pain, awe, fear and dread of the helpless infant.

Vestiges of the sacred ordeals required for initiation survive in daily life in such customs as hazing and mandatory army haircuts. Ritual rapes survive in panty raids.

The tests of endurance, strength, ridicule, fear, humiliation, and abuse are followed by oaths of fealty, and obligations which define the aspirants purpose and intent. These tests produce a social bonding among members of a group.

Shamanistic initiations produce a trance state, and induce confusion, muzziness, and an inhibition of consciousness. Frequently, there is use of mind-altering substances from the plant world. A shamanistic initiation is best described through a first-hand account:

Halloween

October 31, Moon in Pisces

Today, I was INITIATED in the First Degree. I am now officially an initiate and can begin the Great Work in earnest..

The ceremony began by me having to wait naked, and in isolation, while _____, my initiator prepared the Temple. While waiting, I meditated on the significance of my commitment, and prayed that I might be worthy to receive what was to come. It was the inevitable event, at that moment in my time and space. Absolutely necessary.

I was given a cord and told to tie it around my waist. I was told the meaning of the passageway. Then I had to be blindfolded. I was asked 3 times if I was certain I wished to proceed. Of course, I answered yes without hesitation.

I was led into the Temple, and at the final questioning a knife was put to my heart. I received introductions with my magical name to the powers of the four directions.

By this time, I was pretty involved and I can't recall precisely in what order things occurred. Some salt was placed in my mouth. I was consecrated by the four elements. My measure was taken and given to me. I swore an oath to the Goddess and made a personal oath to devote myself wholeheartedly to the Great Work. I received my athame and scourge. I was scourged on the back while on my knees, for forty times and received transmission of the power.

Finally, I was allowed to take off the blindfold and to robe, and Lo and Behold, a new initiate appeared.

There are two major branches of mysticism: magic and yoga. One enters the circuit of the Tree of Life by adopting the magickal world-view, with its paradigms and models. The

aspirant makes the choice to strive for human perfection following that inner urging which demands he elevate himself. This is where we meet the difference between psychotherapy and spiritual discipline. Psychology considers the urge to spiritual development to be "heroic", "puer flight", or "transcendence fantasies." It can be all of these, if there is not proper, simultaneous growth of the cognitive, as if it is an analysis of the personal unconscious to determine motives. Is there a yearning desire for the soul to go to its true home with God, or is it merely a neurotic escape mechanism?

There are two types of initiation left to cover here: those of the magical path and that of mystical yoga, or the union of the soul with the sound current.

Magick requires a hierarchical series of initiations with an order, where the initiating officers represent dramatic projections of the various psychological figures which are latent in the subconscious of the aspirant. The goal of these initiations is to progressively bring the student to awareness of his divine nature, allowing him to differentiate among and consciously integrate his unconscious projections. Dramatic ceremonies stir up the imagination. The officers represent such faculties as reason, the higher mind, the will, and the Self. It is the duty of the Hierophant to communicate the spiritual current to the aspirant. Failure to do so does not produce a true initiation.

This initiation awakens the aspirant's complexes; he confronts them and gradually learns about the divine form they express, and comes to accept them as part of his wholeness. Gradually, he comes to Knowledge and Conversation with his Guardian Angel, that divine spark of the soul from God which is incarnate in an individual human being. This is more than Self-Realization; it is a spiritual quest which leads him to try to cross the Abyss.

Mystics have a slightly different orientation. The first criteria is to find a perfect, living Master. Remember, a teacher takes you no further than he himself has gone. A magickal initiator may be only Self-Realized, not God-Realized, as a Master is. It is fine to honor "ascended" Masters of the past, but they can only care for the souls they initiated while alive. They are on the inner planes, and can be met with, but one needs a living Master to initiate a first-hand experience of the divine Light and Sound. Who would seek a dead surgeon for needed surgery? One must seek a Master who speaks of traveling to the highest possible experience, God-Realization. The so-called "inner orders" of certain magickal traditions insist upon yogic practices as an adjunct to ceremonial practice.

To find a Master and have the good fortune to become initiated is not enough. One only matures on the Path by the daily discipline of meditation for 2 1/2 hours per day. This is tithing one's time, not money. The purpose is to "die daily" which ultimately brings liberation from the wheel of rebirth. At death the soul goes to those inner realms it is used to traversing. It undoes its knot with the mind, and goes back to its true home with God (represented in Qabala as #1, Kether).

There are always living Masters on the earth. You must evaluate your goals before seeking to enter any mystery school. Consider this: who is the living Master of the Egyptian mysteries, who is the master of the Eleusinian mysteries, what are the credentials of this Qabalistic teacher, what lineage is represented, who is a credible Archdruid, how far can

Wicca take me? By choosing a teacher who can take you to the furthest region, you avoid changing disciplines in mid-stream. This means less energy wasted on fruitless practice.

Teachers of magick are known by their grade: minor adept, exempt adept, master of the temple, magus, ipsissimus, etc. In magick, the teacher need only be one grade higher than the student.

In the Eastern systems, there is one teacher, and his initiated disciples. But, you can also determine grade in these systems:

Physical Plane: (chakras) Bhagwan.

Astral Plane: (pranayam) prophets, auliyas, yogis

Causal Plane: (self-realization) gyani yogis and yogiswars

Archetypal Planes: (God-Realization) perfect Sadh (disciple) paramahansa (phoenix, or awakened soul) Sat Guru (Saint) Master or Param Sant Sat Guru (highest kind of Saint who has elected to also be a teacher).

Any true Master will come to his disciple shortly before death, inform him it is his time, and accompany him through the transition in his Radiant Form. He IS the divine Logos or Word in its present incarnation. There can be more than one on earth at a time.

Christ may have been "the Way, the Truth, and the Light" to his initiates, but THE WAY is only through the begotten Son, not through the only begotten Son. God is not stingy. Anyone who promises salvation after death is wrong. The soul's purpose in life is to get a master and make such progress on the spiritual path during life that he need not reincarnate. So the question becomes: "Who is a current, living Master?"

Spiritual practice requires neither outward affectations (clothes, hairstyles, asceticism), nor abstinence from sex. The practice of ceremonial magick can be a very private affair, and for those who prefer mysticism, there are "householder" yogas which go to the highest region.

The initiation in Magick for Malkuth makes the aspirant a Neophyte, a beginner or novice. His tasks include familiarizing himself with the Astral Plane, by proceeding along Path 32, Tau, THE UNIVERSE. He creates his astral body for soul travel to higher realms.

b. Ritual: "On the Practice of Ritual and Ceremony"

A potential participant in Magick might well inquire into the meaning, value, practice, and mode of constructing rituals. To begin, let us examine the archetypal motivating factor, or godform, behind the desire for ritual enactments.

As a god who presides over boundaries, Hermes, the Magician, is able to transcend them. He rules ceremonial magick. He enables us to move from one state of consciousness to another. This brings to mind the three phases of every ritual process:

1). separation from profane or daily life;

2). the transition stage, or twilight zone, which lies between;

3). the new order or perception of reality which occurs in the sacred time of the soul.

The in-between, or twilight zone, enables a state of receptivity to be established. Ritual acts reawaken deep layers of the psyche and bring the mythological or archetypal ideas back to memory. Though the basic or original forms of magic and schizophrenic fantasy spring from the same roots, they are not synonymous. Magick is, in general, the counterphobic attitude, the transition from passivity to activity. The Will is essential. Realistic action does not follow schizophrenic magic; the fantasy is a substitute for action. The ego is weak or absent.

Jung asserted that ritual might be an effective way of re-establishing the experience of an inner fullness. This would be a great boon in our society where so many feel alienated, isolated, and lonely.

Magical practices are the projections of psychic events which, in cases like these, exert a counter influence on the soul and act like a kind of enchantment of one's own personality. That is to say, by means of these concrete performances the attention, or better said, the interest, is brought back to an inner sacred domain which is the source and goal of the soul. This inner domain contains the unity of life and consciousness which, though once possessed, has been lost and must now be found again.

--C.G. Jung/*Secret of the Golden Flower*

How many people long for a return to the well-springs of being for an experience of rejuvenation? This renovation, or renewal of personality opens the doors to an inner world, which is at least as rich and diverse as the physical world.

Ritual is often considered as the celebration of a myth. Myth functions as a paradigm or model. In this school of thought, the construct of a ritual can be seen as the enactment of this myth, as myth would be represented as the source. Myth is actually a dynamic expression of the motivational power of the archetype at its core.

Other schools believe that the ritual existed first, and the tale or myth was created from the need to account for the action that was occurring. In Magick, the former system is used because of its adaptability to Jungian psychology: the myth existed first, and then the ritual was developed around the myth.

The main value of ritual is for the soul. Ritual can be defined as an imitation of a Numinous Element (or godform) in the life of the aspirant. Ritual can be seen as the outward or visible form of contact, or an epiphany with, an inward or spiritual grace. It is essentially a metaphorical expression of creative imagination.

The distinction between concrete and literal, so important to alchemy, is the essential distinction in ritual. The ritual of theater, of religion, of loving, and of play require concrete actions which are never what they literally seem to be. Ritual offers a primary mode of pathologizing, of deliteralizing events and seeing them as we "perform" them.

As we go into a ritual, the soul of our actions "comes out"; or to ritualize a literal action, we "put soul into it."...Ritual brings together action idea into an enactment.

--James Hillman/*Re-Visioning Psychology*

For example, when you do a ritual (this could be "High Magick" or the way you put your toothpaste on your toothbrush each morning), it is a representation of something internal which is being externalized. The symbol always starts on the inside and is projected outward. It is because of this observation that it is believed that the myth was first, and the ritual was created as a projection of the myth.

Rituals dramatically represent the need in man to transcend the barriers of narrow ego-consciousness in order to experience himself as part of something greater. Since ritual is seen as the enactment of myth, the myth inherently possesses an archetypal structure rather than being based on a logical format. Therefore: if one constructs a ritual and attempts to do it with logic, this should be, by definition, in error. This can be the first key to designing a ritual. It should not be strictly logic-oriented, but more archetypal in design. However, it is necessary to follow some practical guidelines. Magickal rituals contain basic elements which must appear in approximately the following sequence:

- 1) setting up the circle to define a working area
- 2) a form of "banishing" to clear the working arena and help concentration and focusing.
- 3) Middle Pillar Exercise to bring in Light and build up libido or magickal potency.
- 4) invocation, or "calling in" of the desired godform or attribute, in an attempt at self-transformation
- 5) charging of a eucharist with the energy of the godform, and its consumption as an epiphany with the god
- 6) meditative period
- 7) banishing to return the aspirant to "normal" consciousness
- 8) closing the Temple.

These steps may be expanded to include divination, dance, dramatic scenarios, etc. Any appropriate gestures may be added, but none of these basics can be omitted without incurring peril, by exposing the soul to random forces.

Rituals reveal values at their deepest levels. Men express in ritual what moves them the most. If the form of expression is conventional or obligatory, group values are revealed through the physical enactment of a myth. Ritual is the key to understanding society, according to many anthropologists, including Levi Strauss. It is a key to getting a better understanding of a given society, and how it may function from within.

Ritual can be a rightness of routine which manifests in habitual patterns; it may manifest in the precision of drill. Others see it as a prescribed series of manipulations of proper combinations to achieve a specific purpose. A third, primitive category deals with ritual's basic objectives such as warding off evil, bringing good luck, or propitiation of supernatural forces. Students of religion have made use of these three different aspects of ritual in that they look upon them as the origin of religion. It is a technique of Magick to use these ethics as the control system of a given religion. The choice of these perspectives is arbitrary.

Jung expands on the concept that ritual acts stand in direct contrast to technical acts. The former are purely symbolic, while the latter are purposeful. This means that when one is doing something specific, one is purposeful in the action.

A ceremony is magical so long as it does not result in effective work but preserves the state of expectancy. In that case the energy is canalized into a new object and produces a new dynamism, which in turn remains magical only so long as it does not create effective work.

--C.G. Jung/"On the Nature of the Psyche"

Ceremonies and rituals are the means for periodically drawing up the sums of energy, or libido, attached to symbols. Only periodic or regular repetition provokes expectation. Therefore, since archetypal processes are recurrent or chronic, regular repetition of rituals builds expectations.

Symbols are the abstract forms of religious ideas. They are expressed as rites or ceremonies in the form of action. Only through a symbol, can a portion of energy which customarily goes toward sustaining the regular course of life be transformed and channeled into another form. This produces cultural, rather than instinctive, activity. Its by-product is the creation of surplus energy, which is then at the free disposal of the ego which can use this energy for further transformation. When one makes ritual use of symbols, they are prevented from falling back into a purely subconscious form of manifestation, (for instance disease, or neurosis).

The purpose of ritual lies in its expression as an artform. Partaking in its performance is an end in itself. Ritual, as symbolic action, is the enactment of mythic patterns for the sheer joy of relationship with the archetypal dimension.

Ritual does not mean only the performance of sacred actions on particular occasions, but is a state of mind which makes sacred all we do. Seeing through to the mythical patterns underlying common activities sanctifies all human acts. This includes the pathological aspects of the archetypes even though this does not justify moral lapses to society.

Ritual is the expression of tension in a symbolized manner; we abreact our anxieties in ritual. It is therefore the transferal of stifled feelings. Rites are calculated to arouse the sentiments that support a given Pathworking. The value of ritual is:

- a). It is a method of organizing an experience. This allows more conscious control of our growth and development.

b). It lends grace and style to action. This prevents clumsy uncertainty, wasted energy and distractions.

c). It helps the general atmosphere by specific symbolism necessary to conjure a frame of mind conducive to the experience desired.

The Gods must be invoked in a balanced manner: this is the value of a Magickal Order. How does an unskilled aspirant know what God to invoke and when it is necessary? Unless he is lucky enough to have prior training in psychology, he cannot even fathom what a Godform represents until his training is near completion. He could even do psychological harm to himself, inadvertently, by not letting "sleeping dogs lay." The exception to this is the practice of Middle Pillar Exercise. This ritual is inherently balanced and can do no harm to the psyche, practiced in excess, or poorly executed.

Magick is the Science and Art of causing change to occur in conformity with Will. Whenever an individual performs a mind-altering experiment, he is performing an act of Magick. Rituals are used to "program" a religious awakening. They are also used to overcome our random pre-programmed cultural narrowness concerning the value of an inner psychic life. The Art of Magick is to blend the Magick and Science into ritual. This then allows an individual to "control" the experience, thus allowing him/her a form of self-realization, through relationship with the archetypal dimension. The nearest definition science has for the Soul is long-term memory...the data experience.

It has been argued that ritual occult beliefs and practices tend to manifest during crisis situations. These situations occur where formed principles of social organization are in conflict. These produce actual or potential disputes which cannot be settled by judicial or other purely intellectual procedures. Ritual operates where there are fundamental disharmonies within the theoretical harmony of a social situation. One evokes basic stresses in order for the ritual to work most effectively, or in "right action".

The term "right action" is used in Magick in reference to the Will. In the *Bhagavad Gita*, Krishna says:

The world is imprisoned in its own activity except when actions are performed as worship of God. Therefore, you must perform every action sacramentally and be free from all attachment to the results.

Remember, the purpose of ritual is an end in itself. This leaves no rationale behind lusting for results.

There are pitfalls inherent in the practice of ritual. Jung spoke of boomerang effects. There can be many unforeseen and unforeseeable repercussions in a self-directed program. This is the value of guidance along the path by a qualified teacher. The teacher has been there, and knows the dangers of each step. Archetypes do not only manifest in benevolent ways. They are good/bad, and their activation in the psyche unleashes their dynamism.

Every initiation has its ordeals:

But she said: the Ordeals I write not: the rituals shall be half known and half concealed: the Law is for all.

--A. Crowley/*Liber Al vel Legis I:34*

The ordeals are unknown to the aspirant, and repercussions cannot be anticipated. These Ordeals are independent of the aspirant's or teacher's conscious care; they come from the Self. They are not, like traditional ordeals, formal, or identical for all candidates. The complexes afford a real test of the ethics and conduct, and compel the aspirant to discover his own nature. He has the opportunity to become more aware of himself by bringing his secret motivating forces to the surface.

If any ritual is completely or openly given there would be dogma and that is not the purpose of Magick. When a ritual is begun, there is a synergetic effect that often occurs in the inevitable ordeal. The secret part of the ritual is, in fact, this unique ordeal. The secret part of the ritual is, in fact, this unique ordeal. That is the concealed aspect of the action. The ordeal is the evoked form or stress and the "right action" is the movement toward knowing one's True Will.

Another pitfall of ritual is the tendency for the ego to identify with the godforms outside of the magical circle. In *Ego and Archetype*, Edward F. Edinger recounts an ancient remedy for this inflation.

There is an interesting ancient Mithraic ritual called "The Rite of the Crown" designed to protect against inflation. The following procedure was enacted during the initiation of a Roman soldier into Mithraism. At sword's point a crown was offered the candidate; but the initiate was taught to push it aside with his hand and affirm "Mithra is my crown." Thereafter he never wore a crown or garland, not even at banquets or at military triumphs, and whenever a crown was offered him he refused it saying, "It belongs to my god.

According to Robert Grinnell, in *Alchemy in a Modern Woman*, women bear a particular relationship to the unconscious and ritual; this bears on her deepest significance.

This distinction between feminine and masculine ways of experiencing the unconscious can best be seen in the different ways prima materia is represented. Whereas in a man's psychology the unconscious as prima materia is experienced as chaos, as violent and irrational processes of generation and destruction, in a woman it appears as a fascinating psychic background for sacred images and rituals expressive of her fundamental feminine conscience.

Later, he goes on expanding on this feminine experience.

Here we have both the problem and the deeper meaning of the "modern woman." For just as she produces an intensified polarity which seems very "modern" and raises to consciousness factors which seem "masculine" and which are left out of the dominant masculine view, so too she activates the unconscious rites linked to forgotten customs belonging to the primitive state of man whose aim was precisely to reconcile conflicting opposites. These rites are performed by men and women, but their content emanates

from the divine sphere which is past, present, and future. These rites unite the instinctual pattern or pole of the constellated archetype to its divine, spiritual pole: the animal shadow of the archetype and its superhuman, divine aspect are linked together. A "reversal" occurs, in which the shadow of a latent consciousness at a psychoid level is extracted and "sublimated." The archetype in its archaic aspect is raised to a contemporary level.

This ennobling process shows the value of recreating ancient rites for modern living; it lies in the fact that they bring together the instinctual and divine poles of the archetypal continuum. They provide a sense of unification unobtainable through other means. This is a healing balm for our modern dualistic, or fragmented, consciousness.

Insert (square talisman)

c. Practical QBL: The Holographic Concept of Reality.

The true purpose of philosophy was once held to be the search for essences, the underlying nature of things manifested. "Meaning" is nowhere to be found except in those fields of study that point to a unity between man and the universe. In modern terms this could be called a search for the archetypal level of reality.

Since the dawn of time there have been two conflicting explanations for the nature and structure of the world in which we live. These two conflicting ideas appear in Greek thought: Democritus stressed the field theory and Heracles the particle theory. Today, fields are stressed in relativity Physics, while particles are emphasized in quantum mechanics.

Throughout history many attempts have been made to synthesize the field and the particle theories. In current Physics those attempts fall under the name Geometrodynamics (Wheeler, 1959). "A Holographic Concept of Reality" by Miller, et al.(1) shows how a cross synthesis of particle theory and field theory can shed new light on living processes.

As postulated by Northrup and Burr (1935), the pattern or organization of any biological system is established by a complex electrodynamic field. This field is in part determined by its physio-chemical components, seen on an atomic or quantum mechanical level of analysis. This field also, in part, determines the behavior and orientation of those components.

Presman (1970) has postulated that such electromagnetic (EM) fields normally serve as conveyors or information from the environment to the organisms, within the organism, and among different organisms. He further postulated that in the course of evolution, organisms have come to use these fields in conjunction with the well-known sensory, nervous, and endocrine systems of the body. They affect coordination and integration.

Szent-Gyorgi (1957, 1960) has theorized that cells and other biological components might have various electronic solid-state physical properties such as the semi-conductor. He suggests that the use of quantum electrostatics is necessary in order to understand biological processes which regulate the vital activities in organisms. Becker (1963) has

maintained that it is already established that EM forces can be used to change a number of fundamental life processes in mammals.

Heisenberg explored the possible relevance of the quantum indeterminacy of elementary particles for biological systems, especially in humans (Koestler, 1972). He stated that there are two places in the human system where the quantum in-determinacy of a single particle can have a profound influence. The first is that of mutation in the genetic code. The second important influence is the alteration of the behavior of neurons during human thought processes.

Tien (1969) has conceptualized the mind as mass in relative motion, and the brain as energy at relative electrical charges in motion. They can be seen as electrons bombarding a television screen, where personality is seen as a time series of scintillation frames of consciousness. Personality becomes a reverberating input-output pattern of self-creation, seeking information or patterns of energy from the environment, as well as from its own memories.

According to the holographic model of reality, all the objects we can observe are three-dimensional images formed of standing and moving waves by EM and nuclear processes. All the objects of our world are 3-D images formed electro-magnetically, i.e., holograms. This concept and the models of human information processing based on the hologram, throw interesting light on the philosophical traditions which hold that the world of objects is an illusion.

POSTULATE (First):

The "reality hologram" which appears as a stable world of material objects is the elementary particle which has a long-term existence and fairly simple rules of interaction.

POSTULATE (Second):

The existence of a "biohologram" which appears as mobile and evolving, through the DNA molecule. This "biohologram" projects a dynamic 3-D image that serves as a guiding matrix for the manipulation and organization of the "reality hologram".

Thus, there are mobile self-organizing holograms moving through a relatively static simpler hologram. The possibility exists that such "bioholograms" could achieve sufficient coherence to continue existence as a pattern of radiant energy apart from a material substate.

Holography is the process of recording and recreating complex 3-D wave fronts in space. The holography with which we are most familiar deals mostly with the visible spectrum, so we tend to think of holography in terms of 3-D photography.

However, holography can be conceived in different realms of the spectrum. The whole process of lasers and laser abilities to create images in space in visible light radiation is closely connected to microwave research and a device called a "maser," which broadcasts coherent radiation in the microwave frequencies. It should be possible in theory, with the

proper kind of equipment, to capture and broadcast complex 3-D wave-form structures in space across a whole broad band of the EM spectrum, "broad-band holography."

Some of the interesting properties of holography have to do with its differences from photography. In photography, the light from an object is reflected onto a flat surface where it essentially discolors that surface; or rather, the shadow that it casts discolors that surface. If you cut a photograph in half, you have half of the original picture that came from the original. Holography is quite different.

In a hologram, the pattern of light that is created by the object is recorded at each point on the film. Each grain contains the whole image. Each image is slightly different, however, and all of the images are very vague and fuzzy.

Detail in a photograph is not particularly connected to the size in the sense that a small piece of a photograph will have a lot of detail on a small area of the scene. A large photograph will have a lot of detail on all of the scene. In a hologram, each grain has some of the information about the whole scene. A large hologram has a lot of details about the whole scene. So something different happens when you cut a hologram in half; you are left with the original picture, but it loses detail.

In the nuclei of each cell in the human body, the DNA carries the structure of our whole body. Not just our physical form, but also the processes that form undergoes in terms of survival. If all of these things are in truth locked in the DNA, how does that turn into a functioning being?

The DNA could possibly be the holographic projectors. The DNA could be projecting a field that would be experiencing by other DNA in the body. The DNA, in a sense, could be linked together. The DNA are also linked to their own cells that they are controlling via mechanisms of RNA transfer and enzymatic action in the cell.

POSTULATE (Third):

The DNA is the projector of the "biohologram," both at the cellular level and at the whole-organismic level. The DNA creates a situation of a complex pattern of 3-D EM standing and moving wave fronts in the space that the organism occupies. These wave fronts interact with, interpenetrate with, and interdetermine the physical substance that makes up the creature.

The biohologram has characteristic properties of affecting the DNA that occupy specific positions within the biohologram. The nervous system constitutes a coordination mechanism that integrates DNA projections of the rest of the cells in the system. It is a coordination mechanism, first and foremost. It aligns these cellular holograms and the linkage of the whole creature hologram.

The DNA in a particular cell is not totally active. It has been determined that there may be as little as 1% of the DNA present in the nucleus of the cell acting as the determinant for the structure of that cell. The nervous system, interesting enough, has the highest percentage of operating DNA of any cell system in the body, up to at least 10% of the DNA in the brain cells. The neuron nuclei are the most active.

The nervous system projects a biohologram which interacts with the cellular bioholograms. If the membrane structure of the neuron nuclei are examined closely, it will be seen that the different cavity systems that enter the outer membrane and also enter the inner membranes, will be seen to topologically be a single membrane. So the nucleus is lacking a membrane, or the neurons are lacking a membrane in the sense that two of their membranes are topologically one membrane.

Within the holographic model, the neurons are not actually seen as brain cells. The brain is the cell, and the neurons are like a distributed nucleus for that cell.

As long as the biohologram is functioning properly, as long as the nervous system is continuing to coordinate and project the complex 3-D fields that support the biological processes in the organism, the organism survives. When the biohologram ceases to function properly, the organism suffers. And when the principle action of the biohologram stops, the organism dies.

If there is any scientific correlate to the concept of Soul, it is most probably this bioholographic pattern system. The actual geometrical structuring of the DNA is a holographic "lens", projecting "reality" and the material world as a hologram-image when it interacts with the ultimate stuff of the universe, electromagnetic field energy. People can be seen as wavefronts, not solid matter.

Using this modeling or view of the universe, it is possible to comprehend both the cosmos and consciousness as a single unbroken totality of movement. When one works with such an implicate (or implied) order, one begins with the undivided wholeness of the universe. The task of science is to derive the various sub-totalities, which could be called as explicate, and show how these relatively autonomous sub-totalities are part of a greater whole.

Explicate or observed phenomena then become part of the implicate or implied whole. To begin to understand this form of ordering, a new tool for perception is needed. This new concept of order involves the discrimination of the relative differences in both time and space. Attention is now given to distinguishing between similar differences in both time and space. Attention is now given to distinguishing between similar differences and different similarities. Such a format in mathematics is called a ratio, or matrix field. "The universe is a cosmic computer on the pregeometric level of information in which space and time appear as secondary statistical constructs."(2)

The Vector Equilibrium Matrix (3) (see Book VII: TIPHARETH) is such a matrix; although seen as a geometry at any stage, it is pregeometric in that it describes the change from one state to the next. It is a quantized state of information. So are the "Holographic Concept of Reality" and the Qabalah (QBL) Tree of Life model.

These "ratios" or "similarities" between successive steps remains invariant. As the degree of steps becomes infinitely high, it then become possible to describe random events. These events are not determined by any finite number of steps, but rather they have a certain kind of order, one which is of an indefinable high degree.

We no longer use the term "disorder" (or chaos), but rather distinguish between different degrees of order. Order is not to be identified with predictability; it is found in the connectivity of two events. The mechanism used to identify an "event" is most revealing:

Insight is the perception (or psychological equivalent) of a certain type of resonance.

This specific form of ordering (insight) has meaningful implications to the individual experiencing it. Intelligence is a sequence of such insights, leading to purpose and practical behavior.

This resonance allows for the transference of information from an implicate order to the explicate order, from latent to manifest. Since the total of the explicate is encoded throughout the implicate order, the resonance provides a direct access or return to psyche. This resonance is called a "complex" in psychology.

The electromagnetic field, which is the ground of the holographic image, obeys the laws of the quantum theory, and when these are properly applied to the field it is found that this, also, is actually a multi-dimensional reality which can only under certain conditions be simplified as a 3-D reality.

The implicate order has to be extended into a multi-dimensional reality. In principle, this reality is one unbroken whole, including the entire universe with all its "fields" and "particles". This holographic concept enfolds and unfolds in a multi-dimensional order, the dimensionality of which is effectively infinite. It is "matter" on its most fundamental level of understanding.

What we call empty space contains an immense background of energy. "Matter" (as we know it now) is a small, "quantized" wavelike excitation on top of this background, like a tiny ripple on a vast sea. Space, which has so much energy, is full rather than empty. Thus, in Greek thought, the School of Parmenides and Zeno held that space was a plenum. Matter, thought of as consisting of special recurrent stable and separable forms in this ether (4), would be transmitted through the plenum as if the latter were empty.

The holographic concept of reality suggests that the implicate order applies both to matter (living and non-living) and to consciousness, and that it can therefore make possible an understanding of the general relationship of these two. With this broader-based perspective of Malkuth we may be able to come to some notion of the common ground between psyche and matter.

Matter as a whole can be understood in terms of the notion that the implicate order is the immediate and primary actuality, while the explicate order can be derived as a particular, distinguished case of the implicate order. Pribram (1971) has given evidence backing up his suggestion that memory is recorded over all the brain. Information concerning a given object or quality is not stored in a particular cell or localized in a part of the brain. Instead, all the information is enfolded over the whole. This storage resembles a hologram in its function, but its actual structure is much more complex.

This model of the electron as an enfolded order is grasped in thought, as the presence together of many different but interrelated degrees of transformations of ensembles. For

example, music is sensed immediately as the presence together of many different but interrelated degrees of transformations of tone and sounds.

In listening to music, one is therefore directly perceiving an implicate order. It is clear that visual images must undergo active transformation as they "enfold" into the brain and nervous system.

There is a basic similarity between the order of our immediate experience of movement and the implicate order as expressed in terms of our thoughts. Movement is comprehended in terms of a series of inter-penetrating and intermingling elements in different degrees of enfoldment, all present together.

In terms of the implicate order of the holographic concept of reality, movement is a relationship of certain phases of what is to other phases of what is, that are in different stages of enfoldment. Therefore "imply" involves the notion of enfoldment. Here is meant not just the content of thought, rather it is also the actual structure, function, and activity of thought that is part of the implicate order.

The manifest (that which is recurrent, stable, and separable) content of consciousness is based essentially on memory. This allows such content to be held in a fairly constant form. To make possible such consistency it is also necessary that this content be organized. Not only through relatively fixed associations, the organization occurs with the aid of the rules of logic, and our basic categories of space, time, causality, universality. In this way an overall system of concepts and mental images develop, more or less faithful representations of the "manifested" world.

This all-systems view includes The Tree of Life, it's correspondence system, archetypes and the holographic concept of reality.

Matter and consciousness can both be understood within this implicate ordering. A moment cannot be precisely related to measurements of space and time, but rather converses a vaguely defined region which is extended in space and has a duration in time.

The laws of the implicate order are such that there is a relatively independent, recurrent, stable sub-totality which constitutes the explicate order. This connection of the mind and body has commonly been called psychosomatic, from the Greek "psyche", meaning "mind" and "soma" (for "body"). In the implicate order we have to say that mind enfolds matter in general, and therefore the body in particular. Similarly, the body enfolds matter in general, and therefore the body in particular. Similarly, the body enfolds not only the mind but also in some sense the entire material universe.

The more comprehensive, deeper, and more-inward actuality is neither mind nor body, but rather a yet higher-dimensional actuality. It is their common ground and yet is of a nature beyond both. We do not say that mind and body causally affect each other, but rather that the movements of both are the outcome of related projections of a common higher-dimension.

Thus, since the quantum theory implies that elements that are separated in space are generally non-causally and non-locally related projections of a higher-dimensional reality, it follows that movements separated in time are also such projections of this reality.

Inquiry into the psychological origins of mathematical models is still to a large extent neglected, even though inquiry into precisely this area would be especially significant. Inquiry into the preconscious creative processes in researcher's subconsciousness is also still largely ignored. The concept of the collective unconscious defines that "intermediate realm of subtle bodies" without presuming to say anything definitive about the substance.

Von Franz (1979) has shown that most all scientific advances and the modeling used to describe those advances are all explicate ordering of a more implicate view involving specific archetypes. If we look back to the scientific-mythological world principles that Greek natural philosophy understood as the ground of being, one is struck by the fact that most of them represent the intuitive-visual pre-stage of what has developed into today's scientific hypotheses or thought-models.

Alchemy, in the strictest sense of the word, has two parents: Greek rational philosophy and Egyptian technologies. The Greek philosophers initiated rational thought regarding the problems of nature, of matter, space and time, but made practically no experiments to verify these models. Their theories were bolstered by certain observations but it never occurred to them actually to experiment.

Egyptians, on the other hand, had highly developed chemical-magical techniques, but in general gave no thought to them, either philosophical or theoretical. When the two trends of Greek and Egyptian civilizations came together they united in a very fruitful marriage, of which alchemy was their child. From the Greek philosophy all the basic concepts are still valid in modern physics.

When considering the concepts of matter and space, the problem of time, one thinks of Zeno. The concept of energy was Heraclitus. The concept of the particle was created by Leukippos and Democritus. The concept of affinity of the elements and the idea of the four worlds prevailed right up to the sixteenth and seventeenth centuries. All of these concepts were created by the different pre-Socratic philosophers.

In Greece it was a switch from a religious mythological outlook on the existence of the world to a philosophical one. It was a foundation for the implicate order of modern sciences. One of the ideas, namely that the basic elements of the universe are mathematical forms, was created through the Pythagoreans and was developed into a slightly varied form of Plato. It is now again present in the Heisenberg's theory and quantum mechanics.

There is a strong line going through Greek philosophy into modern sciences, even though it never occurred to the Greeks to make practical tests. In Egypt, techniques had been highly developed but these chemical techniques were used mostly in a specific realm of Egyptian religious life.

The great opposites of human nature, extroversion and introversion, play a tremendous role in the historical development of alchemy and modern science. The theoreticians of natural philosophy among the Greeks had been more extroverted and the Egyptian

technologies had been more interested in its psychological inner aspects. So they switched roles at that moment, but naturally the inner opposition and the play of these two opposite attitudes continue.

Geometry is a divine art, because the law of the creation of the world is revealed in its axiomatic structure. Space and time are regarded as a 4-D metric field that determines the distance between closely adjacent points. The metric components attributed to the field have absolute meaning. One cannot speak of them without taking into account the presence of matter.

In Einstein's theory the same primordial image turns up in modified form, but it is also closely joined to the idea of matter. According to Einstein, matter would be an excited state of a "dynamic geometry". The superspace of this dynamic geometry contains "wormholes" in which the electric lines of force are, so to speak, caught in the topology of superspace. It was Newton and Kepler who began the process of partial secularization and mathematicization of the image, with the loss of its "mythical" meaning. The aspects of the symbol gradually receded into the background.

Today, however, there is within the holographic concept of reality, an implicate aspect to specific explicate modeling. The archetypal images formed the basis of all scientific ideas about time and about space as 3-D conceived, as well as the idea of the atom (omnipresent point) and the idea of continuum and discontinuum. Therefore all these fundamental scientific hypotheses are, in the end, derived from a mandala-formed God-image.

Whenever physicists attempt to construct a comprehensive model of reality or a thought-model of what they are doing, they always return to a quaternity of principles, generally without suspecting that Jungian psychology long ago discovered the quaternary structure of consciousness. The purpose of science is to bring inner images into coincidence with external facts. Both the soul of the perceiver and that which is recognized by perception are subject to an order thought to be objective.

The combination of the holographic concept of reality, Jungian archetypes, and The Tree of Life (QBL) represent an implicate ordering which then allows for explicate application and relationship. Their combination enfolds all other aspects now envisioned and thus forms the basic foundation of Malkuth, the world of physical images.

* * *

Famous Vegetarians: Homer, George Bernard Shaw, Count Tolstoy, Mahatma Gandhi, Buddha, Confucius, Moses, Cicero, Pythagoras, Diogenes, Plato, Nietzsche, Lao-tze, Albert Einstein, Henry David Thoreau, St. Francis of Assisi, Francois Voltaire, Arthur Schopenhauer, Plutarch, Lucius Seneca, Socrates, Zoroaster, Leonardo da Vinci, Aristotle, Percy Bysshe Shelley, Charles Darwin, Sir Isaac Newton, Milton.

2. PSYCHOLOGY

a. Psychological Model: The Path of Individuation

The path of Individuation is the psychological equivalent of initiation. The goal of individuation is self-realization through increasing conscious relationship with the Self, archetype of wholeness. This Self includes both positive and negative traits of an individual which, in the beginning of analysis, are generally projected out, or attributed to, the environment. As the ego continues its heroic journey through the labyrinthine psyche, it comes into confrontation with personifications of various archetypal characters. During the maturing process, these characters emerge from the undifferentiated mass of unconscious contents. Though their presence in the psyche was implied from the beginning, they begin to unfold in unique patterns in the life of the individual.

One meets such intriguing archetypal figures (complexes) as the shadow, persona, hero, anima/animus, puer, wise old man, trickster, great mother, healer, divine child, self, etc. When these figures, and their behavior patterns, remain unconscious, they are projected onto other people, as "my enemy," "my great love," "my wise teacher," etc. In time the analysand learns to distinguish these recurrent patterns from the personalities of the people with whom he is involved. Another way these patterns lay claim to an individual and exert their influence is through the identification of the ego with the archetype. Then we have cases of "I am the great lover," "I am the great teacher of wisdom," or "I am especially gifted and prodigious."

Using Tree of Life pathworking techniques as a mode of creative imagination, personified forms are encountered as gods or goddesses, and the aspirant comes to a conscious relationship with them, both internal and external. He learns to recognize them when he sees them. Most importantly, he has a framework for experiencing these internal personalities as distinct from his individuality; they are, after all, collective patterns which can manifest in anyone under the proper circumstances. This attempt leads to self-realization through the transcendent function, which is a symbol of the union of opposites. In Magick, it is known as the Holy Guardian Angel.

We are not alone. We are not totally encased in our ego-selves. There is a companion, a comrade, a guardian angel, a greater self who is always with us. When looked at in this way, it is seen at once that individuation is more than behavior modifying oneself out of bad habits. Individuation is a religious endeavor. (5)

This is no way to finally dispose of undesirable qualities or weaknesses. Rather it is a method of coming to conscious knowledge of the gamut of motivations and possible behavior of which one is capable. It is a process of rebalancing psychic functioning, integrating the fragments of archetypal patterns which underlie human existence.

It is not the road for all. Frequently those who choose to pursue it are impelled by depression, illness, breakdown of current adaptation to reality, or stagnation. The unconscious manifestations demand attention in a form the ego cannot ignore indefinitely. One does not choose the path of individuation, but rather is chosen by it. If the ego can withstand the temptations, ordeals, and peril at the hands of the unknown, it is eventually rewarded with an expanded experience of self and a rejuvenation, or rebirth.

In his essay on the "Relationship between the Ego and the Unconscious," Jung has stated that

It is impossible to achieve individuation by conscious intention, because conscious intention invariably leads to a typical attitude that excludes whatever does not fit in with it. This assimilation of the unconscious contents leads, on the contrary to a condition in which the conscious intention is excluded and supplanted by a process of development that seems irrational. This process alone signifies individuation, and its product is individuality as we have defined it; particular and universal at once.... Only when the unconscious is assimilated does the individuality emerge more clearly, together with the psychological phenomenon which links the ego with the non-ego and is designated by the word attitude. But this time it is no longer a typical attitude but an individual one.

What the conscious ego can do in regard to individuation is make the commitment to attempt to work in harmony with the unfolding subconscious process, to give it his constant attention, and to place proper value on the experience. This creates the experience of "being in harmony with the cosmos," which is another variation on the Hermetic Axiom, "As Above, So Below."

There are definite parallels between the ancient arts of Hermetic philosophy, yoga, and alchemy and the modern concept of psychological individuation. Once there is some progress on the search for meaning, individuation becomes a way of life. It allows one to see through the mundane aspects of life to the divine patterns animating existence.

Stated in the broadest possible terms, individuation seems to be the innate urge of life to realized itself consciously. The transpersonal life energy, in the process of self-unfolding, using human consciousness, a product of itself, as an instrument for its own self-realization. (6)

The unconscious stores our entire history, both personal and collective, and also potentially has the ability of anticipating our future. It does not, however, function on the ego's linear time-line; in sacred time, there is a melding of past/present/future so that symbols produced at any given time may or may not indicate the current state of subconsciousness. Frequently, symbols of wholeness appear at the beginning of the work, and are strictly prognosticative. In Magick, the same occurs in the Vision of the Holy Guardian Angel.

This is a far cry from the resulting maturity on the path which brings Knowledge and Conversation with one's Angel. Individuation arises out of the conflict between ego and unconscious. If you can't imagine a conflict with your Angel, just remember Jacob who wrestled with his angel. The conflict was an ordeal, but the conflict made him Jacob. Without it he would be among the nameless masses, not a paradigm for contemporary man.

[INSERT DRAWING; PSYCHOLOGICAL TREE OF LIFE]

Every disease, every calamity, every failure, every neurosis has its symbolic content. The symbolic content enters the soul through the locus of misfortune or the wound of the body, and then it becomes the task of the soul to make friends with this stranger in its midst. There may be a struggle, but ultimately it is not a struggle but an expansive process with a releasing effect as if one grows beyond one's former boundaries and the whole psychic system reaches toward infinity. The crisis actually made the process possible. It was the

calamity that befell that gave us a glimpse of the void. It opened a slit to another world and we saw into that which lies beyond. The trauma weakens the boundaries between man and the archetypal world. As a result, when the healing finally takes place, he is not merely restored to his former self. He is recreated and is now a larger person than he was before.
(7)

Inner life begins to open up: when one looks inside, there is no longer the opaque blackness, but a rich field of experience filled with entities who long for attention or worship. This does much to alleviate feelings of isolation and despair, providing that one has proper guidance in this realm. This guiding force also emerges from the unconscious:

The unconscious, through dreams and through its manifestations in everyday life, provides all the information we need to know. The unconscious, with its ingenious way of symbolizing, sets the picture before us: this is how it is, there are these and these obstacles, but there is a chance of breaking through to a new position with a wider perspective. Or the unconscious may place violent objections in the path, warning of disaster if the stirring up of archetypal material is encouraged to continue.(8)

Individuation requires the balancing, objective viewpoint of another who not only cares for your soul, but is intimately familiar with the recurrent themes of archetypal processes. This helps the ego to avoid becoming possessed by any given pattern. Both commitment and will are required in the process, for once begun, it must be followed through to its goal, lest one be lost forever in the abyss of the transcendent imagination. New discoveries must not only be made, but assimilated. As in Magic, there must be concurrent experience, and psychological insight concerning the meaning of the experience. The individual meaningfulness of an experience is what creates the unique personality of those with an awareness of the self. The instinctive feeling of significance is expanded upon by rooting experiences in their mythical patterns.

The ego must never presume to wield power over the unconscious lest it provoke a reactionary attack for this spiritual pride. This inflation disturbs the progress of the work by returning the ego to the unconscious state of identifying itself with the powers and potency of the unconscious. This control fantasy is the basis of many neuroses. Some might call it "black magic."

In his essay on the "Relationship between the Ego and the Unconscious", Jung has stated that:

It is impossible to achieve individuation by conscious intention, because conscious intention invariably leads to a typical attitude that excludes whatever does not fit in with it. The assimilation of the unconscious contents leads, on the contrary to a condition in which the conscious intention is excluded and supplanted by a process of development that seems irrational. This process alone signifies individuation, and its product is individuality as we have defined it; particular and universal at once...Only when the unconscious is assimilated does the individuality emerge more clearly, together with the psychological phenomenon which links the ego with the non-ego and is designated by the word attitude. But this time it is no longer a typical attitude but an individual one.

What the conscious ego can do in regard to individuation is make the commitment to attempt to work in harmony with the unfolding subconscious process, to give it his constant attention, and to place proper value on the experience. This creates the experience of "being in harmony with the cosmos," which is another variation on the Hermetic Axiom, "As Above, so Below."

There are definite parallels between the ancient arts of Hermetic philosophy, yoga, and alchemy and the modern concept of psychological individuation. Once there is some progress on the search for meaning, individuation becomes a way of life. It allows one to see through the mundane aspects of life to the divine patterns animating existence.

Stated in the broadest possible terms, individuation seems to be the innate urge of life to realize itself consciously. The transpersonal life energy, in the process of self-unfolding, uses human consciousness, a product of itself, as an instrument for its own self-realization.(8)

The unconscious stores our entire history, both personal and collective, and also potentially has the ability of anticipating our future. It does not, however, function on the ego's linear time-line; in sacred time, there is a melding of past/present/future so that symbols produced at any given time may or may not indicate the current state of consciousness. Frequently, symbols of wholeness appear at the beginning of the work, and are strictly prognosticative.

In Magick, the same occurs in the Vision of the Holy Guardian Angel. This is a far cry from the resulting maturity on the path which brings Knowledge and Conversation with one's Angel. Individuation arises out of the conflict between ego and unconscious. If you can't imagine a conflict with your Angel, just remember Jacob who wrestled with his angel. The conflict was an ordeal, but the conflict made him Jacob. Without it he would be among the nameless masses, not a paradigm for contemporary man.

b. Archetypal Encounter

(1). PERSONA: The persona is the outer personality presented to others by an individual. It could be pictured as a mask of conformity, which is a conscious adaptive mechanism. Choices in adaptation are made by the ego, which builds up the persona, or "front." It is a response to the demands of society for "normal" behavior. Most people have at least some desire to appear appropriate in their social milieu. Our obsessions for conformity are reflected in fashion, religion, education, and entertainment. We seek common experiences. We have a desire to "fit in," like a cog in a machine. Persona shows in special costumes or lifestyles; alternatively, our job may determine the type of appearance and behavior "expected" of an individual by society. For instance, who would expect a brain surgeon to be a sloppy, unorganized personality? This would hardly inspire confidence in his patients. So, the persona is the public image, which implies certain constraints and limitations.

The persona lies very close to ego-consciousness, and it is therefore fairly easy to determine symbols of this persona in your personal life.

The symbols for the persona are cover-ups: they may appear in dreams as dress, hats, armor, veils, shields; or they may take on the characteristics of a profession or trade, as tools, equipment of various sorts, certain specific books; or they may be reflected in an automobile, or even in some instances a house or apartment. Or the persona may be expressed in awards, diplomas, or a variety of so-called "status symbols." Persona problems are common in all parts of society, for as people identify themselves as belonging to a certain category they begin to adopt behavior appropriate to that category and to discard what does not fit. Thus the "identity crisis" about which Erik Erikson has written so much, tends to find a partial solution, at least, in the assumption of a persona. It may not be the best solution but it often works, until something happens to break down the persona. While the persona is functioning well, many people identify with it. (9)

It is easily seen that no one can be merely a doctor, a teacher, or an artist. There are many other facets to psychic life which may be explored once the distinction between ego and persona has been made clear in the mind of the aspirant.

(2). **THE SHADOW:** Shadows are created on paintings by mixing a color with its opposite. Every painter knows that you cannot even create the illusion of depth without including shadows in the painting. The ego appears as a flat caricature without the shadow-aspects to round-out the form. The shadow includes those qualities of the individual which have been rejected, repressed, or un-lived. In short, it represents the inferior side of life, which even though it is autonomous, may be judged as negative from the ego's point of view. As a rule of thumb, the stronger the persona, the more repressed the shadow side.

This can especially be true in religious persons who identify only with the good qualities of brightness and light. But in Physics, the brighter the light, the deeper the shadows which are cast. Jung even explored the premise that there is a shadowy aspect to the subconscious of God in *ANSWER TO JOB*. When the shadow and instinctual life are not differentiated, they form a contaminated state which urges the holder of this fantasy to experience "devilish" forms. This shapeshifter is considered the strongly polarized opposite of "absolute good", which is "the adversary." A conscious realization of the shadow produces an inner reconciliation which might open the door to manifestation of some of the un-lived potential. "The sacrifice of innocent purity also implies the realization of the shadow which releases one from identification with the role of innocent victim and the tendency to project the evil executor on to God or neighbor." (10)

Let us take the shadow as an example. It is the image of all sides of personality that I could become. In my dreams he may be a brother, a schoolfriend I feared or even envied, an outcast or a success, or a professional colleague whose traits are those I most dislike--but which are closest to mine. Because of my identification with a personality I call "my ego", the shadow usually appears as inferior and as rejected by society. The development of one partial personality, the ego, builds a shadow at the same time. Ego development in our culture proceeds through choices between good and bad, right and wrong, like and dislike. The bad, the wrong, and disliked fall into shadow, becoming fearful. Soon the suppressed side becomes the repressed side; the shadow archetype which is a potential of destructive values, an "instinct to evil" or "destrudo", is activated by the cast-off impulses of daily life. The more right I become, the more the shadow is fed with contrary motives until the extremes of a Dr. Jekyll and Mr. Hyde can result. Because the shadow is an archetypal

figure, and not merely a cover-name for the repressed, it is a living personality with intentions, feelings, and ideas.

By keeping innocent and self-righteous in ego-consciousness, I force the shadow into the dark where he archetypally belongs anyway as the devil is depicted in hell and the criminal fantasied in the night. So, in dreams, he will show in ghettos, as a welfare case, an invalid, crippled or diseased. He appears also in the images of power politician, fake guru, street gang, or person of darker skin...The shadow also determines the ulterior motives in plans, the schemes for professional advancement, the nasty gossip, the sellouts, all beyond and in spite of our honest intentions. Although I have described him mainly in terms of ethics, the shadow can as well carry any incompatible aspect--one's un-lived sexuality or primitivity and one's un-lived potential achievements and cultural sensitivity. Especially, the shadow presents images of one's pathology: sadism, hypochondriachal complaining, or any of the various psychic syndromes that reflect in caricature one's overall personality structure. (11)

(3). THE DOUBLE: As the shadow is generally a negative projection of psychic contents onto a member of the same sex, the double manifests as a projection of positive traits to members of the same sex. It is an image of the magical self, operating on the principle of "likeness." Projections of the double may fall upon our "best friend", role models, mentors, etc. There are implications within this archetype which link it to homoerotic love, whether this tendency is lived out sexually, or not. The double carries both spiritual and erotic significance.

Its activation means we are coming to an awareness of our own androgynous tendencies, a form of wholeness. The double is conceived of as beautiful, with a youthful quality of near-perfection. Its aspects include aid, or support, and comfort, a fusion of the fate of the partners, a rapport and camaraderie. The partners share their feelings, needs, dreams, desires, and potential futures in a spirit of profound equality. The double can function as a soul-guide to inner depth and value. When there is an age discrepancy between the partners, the older generally stimulates the process of psychic maturity in the younger; the younger brings a sense of renewal to the older.

Darker aspects of the double include a tendency to remain in sort of perpetual adolescence, or a tendency toward homosexual expression may be repressed cutting off a vital avenue to the unconscious. The "other" may instead be conceived of as competition, or someone committed against your success.

...the double is a soul-mate of intense warmth and closeness. Love between men and love between women, as a psychic experience, is often rooted in projection of the double, just as anima/us is projected in love between the different sexes. And as with anima/us, such love may occur within or without the heroic quest. Furthermore, since the double is a soul figure, the sexual instinct may or may not become involved. That is, the double motif may include a tendency to homosexuality, but is not necessarily a homosexual archetype. Rather, the double embodies the spirit of love between those of the same sex. And the spirit of love in the double is what I see as the supportive ground of the ego. (12)

This spirit of love between those of the same sex is often misunderstood:

A psychology that wants to improve its reading of the archetypes can hardly accept a psychotherapy which is biased toward man-to-man relationships, tending to see them only in terms of illness to be cured or controlled. Such is to misplace illness; and moreover, there is then no possibility of seeing through to the Gods who are at the background of these relationships. What appears in the personal picture as 'messes' ...are more likely expressions of the conflictive side of an archetype, or frictions brought about by the mixing of archetypes. Seen in this way, psychotherapy, by taking into account the archetype, could propitiate psychic movement following along with the dominant archetype in which erotica among men appears, and it would accept this dominant as the very vehicle for psychotherapeutic movement... (13)

Otto Rank attributed a high spiritual significance to this archetype, and considered it a fundamental of personality.

...a positive evaluation of the Double as the immortal soul leads to the buildup of the prototype of personality from the self; whereas the negative interpretation of the Double as a symbol of death is symptomatic of the disintegration of the modern personality type... Yet the double in its most primitive form, the shadow, represents both the living and the dead person.

In animate man there dwells as a strange guest a more feeble Double--his other Self in the form of his Psyche--whose kingdom is the world of dreams. When the conscious Self sleeps, the Double works and watches. Such an image, reflecting the visible Self and constituting a second Self, is, with the Romans, the Genius; with the Persians, the Fravauli; with the Egyptians, the Ka... Originally conceived of as a guardian angel, assuring immortal survival to the self, the double eventually appears as precisely the opposite, a reminder of the individual's immortality, indeed, the announcer of death itself. (14)

This is a curious admixture, where the double represents on the one hand a mutual fantasy between members of the same sex, and on the other the immortal self. It touches on deep areas of social taboo in either event. The androgynous being, whether literal or metaphorical has been traditionally tabooed and venerated, or feared and worshipped at the same time.

Mythologically, the hero is a fusion of two separate selves, the mortal and immortal aspects, in a single personality. He has reabsorbed his double, or twin. This yields a self-creative power wherein he works for his immortality by creating lasting achievements.

The unconscious union of "like" with "like" in the form of homosexual relationships may appear in dreams as a symbol of a stage in the primitive idea of self-fertilization. In this manner, the double unlocks creative processes.

INSERT PICTURE

GREEK GODS ON THE TREE OF LIFE

c. Mythic Correspondences:

In this book, the Gods and Goddesses of Greek mythology are depicted as arrayed on both spheres and paths of the Tree of Life, but only the paths of the Middle Pillar are explained with mythic correspondences. For a complete attribution of Greek Gods to the Paths of the Tree of Life, see *Pantheon: Archetypal Encounters in Daily Living*, Philo Stone (1982). There each godform is described in much greater detail, including characteristic personalities.

There are many options for attributions to Malkuth. Each is included for a particular reason, although it might also be corresponded elsewhere on the Tree.

1. Hestia: Goddess of the Hearth. The first and last tribute at any rite was always offered to Hestia, so she leads off the list of correspondences. She is analogous to Malkuth through her functions as "locality" and the "focal point." Without internal focus or concentration, we can perceive no other psychic images.

2. The Kore: Archetypal Maiden. The Korae include the youthful forms of Hera, Artemis, Athena, Psyche, and especially Persephone. They represent the budlike quality of the naive, virginal psyche before its encounter and transformation in the underworld of the unconscious. The Neophyte's psychological condition mirrors that of this archetypal bride, Malka. The puella, or daughter, is doomed to die, and this is experienced as an inner act of surrender. Rape is the image here of initiation into the psychic realm. Rape transforms Persephone from Demeter's daughter to Hades' wife.

Persephone, as Queen of the Underworld, is quite different from the virgin Kore, or archetypal maiden. Her beauty is the resplendence of the most profound depths of the feminine psyche. She is a powerful ruler of the dark region of the subconscious.

3. Demeter: Earth Mother. Demeter/Persephone express the mother/daughter mystery, which is a union of sames. It is the experience of the innermost depths of the feminine Self. Their reunion after the process of seasonal change turns the process into a meaningful cyclic ritual which indicates that the individualized consciousness has assimilated the experience of man's common roots, but returns to the day world at the summons of the spirit. Demeter, herself, is the most nurturing mother of the entire pantheon. She represents the fertile soil of farm and garden. She endures her neurotic, depressive suffering for the sake of suffering. She mourns. Her self-denial may extend to self-indulgent regression away from connections with the divine, seeking refuge in everyday "reality," Malkuth. "...but entering into the figure of Demeter we realize the universal principle of life, which is to be pursued, raped, to fail to understand, to rage and grieve, but then to get everything back and be born again." (15)

4. Narcissus: the Self-Absorbed. The self-absorbed attitude reflects an alienated ego which is unrelated to itself. The frustrated yearning of this unrealized soul for self-possession, needs fulfillment not repression. As a union with the image in the depths of the subconscious, narcissism is a way into the unconscious in the quest for individuality. Narcissus is in love with his own soul, and may be drowned, or fail to find a suitable object for his affection in the external world.

5. Pan: the Nature God. Pan corresponds with Malkuth through the instinctual nature of man. He is seen as a devil by Christians who would confound this divine principle with the shadow, and seek to repress it in themselves. This is especially evident in relationship to the instinctual approach/avoidance paradox of masturbation. Pan invented masturbation. He was also conceived as the result of a shared fantasy between members of the same sex, a homosexual liason. Pan also corresponds with panic anxieties, and nightmare terrors. Instinct is a release of tension through movement. Fantasy (Pan's nymphs) is an accompaniment to masturbation. This activity makes us self-conscious. Pan links nature and psyche; he is an altogether imaginal form.

6. Gaia: the Earth. As the deep-breasted earth, Gaia is a personification of matter = matrix = mother of Uranos, the starry heavens. She was also the mother of the Titans. She supports all physical life; in fact, she is the material or physical body. She is the somatic base of all psychosomatic phenomena, such as disease. Gaia created the manifest universe, the first race of gods, and the first race of humans. She has the gift of foretelling the future. She is a prophetess. A major characteristic is that she is the guardian of the sanctity of oaths, including magickal oaths.

DEMETER & PERSEPHONE

*And whenever the earth blossoms with all kinds of fragrant
Spring flowers, You will come back up again from the mist
darkness, to the great astonishment of gods and mortal man.*

*They spent the whole of that day with hearts united,
and they warmed each other's hearts
with many gestures of affection,
and her heart stopped grieving.
They gave and received joy
from each other.*

Sphere 10, Malkuth, cont.

3. ASTROLOGY & ALCHEMY

- a. Astrological Cycles of Unfolding (Natal Chart = Prima Materia)
- b. Alchemical Imagination: Making Psyche Matter (Mortification)

4. ORIENTATION & EXERCISE

- a. The Banishing Ritual and Psychological Orientation
- b. Psychic Equilibrium and the Middle Pillar Exercise
- c. Middle Pillar Exercise and Synesthesia: Cross-Modal Sensations

3. ASTROLOGY and ALCHEMY

a. Astrological Cycles of Unfolding, (Natal Chart = Prima Materia)

Astrology is assured recognition from psychology, without further restriction, because astrology represents the summation of all psychological knowledge of antiquity.

--C.G. Jung/Commentary on *The Secret of the Golden Flower*

The systems of both astrology and alchemy provide frameworks of imagery and correspondence. Conveying the images of the Astral Plane, they supply modes of working together for conscious and unconscious processes. Through them we can read a "status report" concerning what is otherwise unknowable.

The practice of astrology or alchemy does not require "belief" or "disbelief." They are tools for making psyche matter. "Faith is not what is believed, but that by which it is believed."

What can astrology do for you? The relationships of the planets in the solar system (including the sun, moon, and earth) create certain dynamic energy potentials for change, growth, evolution, action, and transformation. This influence pervades everywhere, including who we are and what we do. The cyclical movements of the solar system define trends and patterns of trends.

The true form of universal language is symbolism. The overlapping cycles of planetary movement represent the living force of archetypal principles, and the dynamic geometrical relationships between them. This yields an experience of wholeness, in which complete and unique constellations of archetypal energies and cyclic patterns of relationship manifest.

All of this is examined through a "horoscope". The chart is a variation of the mandala, or magickal circle. There are several kinds of horoscopes for different applications. The primary form is the natal horoscope, or birth chart. It shows the dynamic potentials with which you were born and which actuate your being.

There is the horary horoscope which defines the same thing for anything at any moment of time. There is the transit chart which compares your natal horoscope the current potentials and changes. Transits represent external pressures of the current environment. There is also a progressed chart, which purports to show your life's dynamic opportunities by examining the motions of the stars for the two or three months after your birth, on the basis that 1 day = 1 year of life.

Everything in astrology deals with interpreting the meaning of the planetary relationships in these horoscopes. The planets in themselves create certain potentials. Their angular relationships (aspects) affect the flow of these potentials. Their cyclical flow around the sun create different areas where these potentials are felt (the zodiac).

The sum total of these relationships combines with the earth cycle (the Houses, or field of experience) in a unique pattern for every different location, birth, and moment on earth. Each "house" is supposed to relate to a part of your being and life activity. The positions of the planets within the Houses provide different and unique potentials for all of us.

[INSERT PICTURE Two fish swim in our sea]

We can connect the basic concepts of astrology and alchemy to amplify our knowledge of them both. The natal, or birth chart, in astrology, is a blueprint for the unfolding of an individual life. It contains all of the implicate information concerning predispositions and future trends. It forms the basis for a unique pattern of archetypal coordination. As a

graphic depiction of the heavens at the moment of birth, from a precise location, it links man to the cosmos. Representing the conditions at the beginning, it corresponds with the alchemical prima materia.

The base matter was the prima materia, in alchemy. This "stuff" one starts with corresponds to the inflated immaturities of one's own psyche. In the beginning of the psychological process of individuation, the personal ego cannot distinguish itself from the powers and abilities of the Collective Unconscious. S/he does not, for instance, realize that "Mars trine Venus" manifests in a characteristic manner for all who are in that archetypal domain; rather, the ego thinks, "I am thus and such."

The prima materia is our ego-Self identity, the residue of original inflation, or identification with the subconscious. To submit this material to the alchemical process means to apply conscious effort and attention to the task: Refining and separating this composite mixture to the end that the Self or archetypal psyche will be freed from its contamination with the ego.

The composition of the ultima materia (end result) and prima materia (beginning conditions) are essentially the same. The characteristic difference is that the conscious ego has distinguished itself from the contents of the Collective Unconscious, represented in Astrology by the dynamic interaction of the planets in the field of experience. He can distinguish "himself" from the various archetypes. This sets up a feedback system, which is access through the imaginal modes of astrology and alchemy, to Self-Realization. The aim is to unite with the well-springs of being.

The birthchart forms a field of unfolding, rhythmical sequences. It discloses innate psychic attitudes and behavior patterns, and provides a fairly reliable method of timing life crises. Used as a form of active imagination, you learn to consciously relate to meaningful events and cycles in life, making psyche matter.

Jung used both astrology and alchemy as psychological tools. Meaning can only be found in realization of the unity between man and cosmos. To become in fact that which we are potentially is the basis for "personal immortality."

Recommended Reading:

Dane Rudhyar, *The Astrology of Personality*
Stephen Arroyo, *Astrology, Psychology, and the Four Elements*
Alexander Ruperti, *Cycles of Becoming: The Planetary Pattern of Growth*
Isabel Hickey, *Astrology: A Cosmic Science*

ERECTION OF THE NATAL CHART:

(add shareware description and how to use it)

Information needed:

- 1. date of birth**
- 2. time of birth (to nearest minute)**
- 3. place of birth (longitude and latitude)**

Reference material needed:

- 1. ephemeris for the year of birth**
- 2. table of houses**
- 3. book of time changes**

Computation of the ascendant and the midheaven positions:

Finding local mean time (LMT) at birth: Using the time change book, determine the time zone and the time meridian; check for daylight time or war time and adjust the birth time to standard time if necessary. Note the difference between the time meridian and the longitude of birth. To adjust the birth time for the actual location of birth, multiply the above difference by 4 minutes for each degree of difference. Now add this figure to the birth time if the birth longitude was east of the time meridian or subtract it if the birth longitude was west of the time meridian. This gives the LMT of birth.

Finding sidereal time (ST): In the ephemeris there is a column marked ST which gives the ST at noon for every day. Find the ST for the noon before LMT at birth.

Correction factors: Take the time difference between Greenwich and place of birth and multiply by 10 seconds for each hour difference (the difference in time zones will be close enough). Take the LMT and multiply it by the same factor of 10 seconds per hour. This gives the two correction figures.

Take all four resulting figures and add them up: this is the sidereal time of birth. If the figure is greater than 24 hours, subtract 24 hours from the total. One additional note: if LMT was an AM time, then the 12 hours from the previous noon has to be added to it to give an accurate LMT (remember ST was determined for the noon before birth, not necessarily the closest ST to birth).

Now go to the table of houses: They are arranged by latitude and sidereal time. Use the sidereal time at birth from the above calculations and the latitude of place of birth. Read through the columns and take down the figures for the ascendant (first house cusp) and the midheaven (tenth house cusp). The other house cusps are not necessary in cosmobiology, but they are there if desired.

Computation of the planetary positions:

The planetary positions are listed in the ephemeris for each day for noon at Greenwich. These have to be adjusted to LMT of birth. Note the difference between birth time and Greenwich noon using the time zones. This gives the interpolative factor; now interpolate the tables to get the correct planetary positions for the actual time of birth.

Example:

For an individual born:

1. 10/15/53

2. 10:19 AM

3. Seattle, WA (48N, 122W)

Time change information: there is no daylight or war time in effect; it is Pacific Standard Time (PST); the time meridian is 120W.

LMT: 122 - 120 gives a difference of 2 degrees; times 4 minutes this equals a time difference of 8 minutes; 122 is west of 120 so this difference is subtracted from the birth time giving 10:11 AM. Since this is an AM birth, 12 hours have to be added on to correspond to the ST criteria of the noon before birth. Thus, the LMT becomes 22:11.

The ST at noon previous to birth is 13:31 (from the ephemeris).

Correction factors: The difference in time between Greenwich and Seattle is 8 hours; times 10 seconds this gives approximately 1 minute. The LMT of 22:11 is multiplied by 10 seconds also; giving approximately 4 minutes.

Adding the LMT, the ST, and the correction factors:

22:11

13:31

:01

:04

35:47

subtract: 24:00

11:47 ST at birth

From the table of houses for 48N and ST of 11:47: Ascendant: 4 Sagittarius

Midheaven: 26 Virgo

Interpolation of planetary positions: if it is 10 AM in Seattle, in Greenwich it will be eight hours later - 6 PM. The ephemeris tables are listed for noon Greenwich; it is 6 hours later. The next planetary figures listed are for 24 hours later (the next noon in Greenwich). The interpolative factor becomes 6/24 or 1/4. All the planetary positions have to be adjusted 1/4 of the way towards the next day's positions:

planets 10/15/53 10/16/53 interpolation positions

sun 21:50 libra 22:50 libra 22:05 libra
venus 26:08 virgo 27:22 virgo 26:25 virgo
mercury 14:45 scorpio 16:00 scorpio 15:02 scorpio
moon 16:51 capricorn 00:15 aquarius 20:13 capricorn
saturn 29:09 libra 29:16 libra 29:11 libra
jupiter 26:26 gemini 26:26 gemini 26:26 gemini
mars 19:21 virgo 19:59 virgo 19:31 virgo
uranus 23:03 cancer 23:03 cancer 23:03 cancer
neptune 23:34 libra 23:36 libra 23:35 libra
n.node 28:51 capricorn 28:47 capricorn 28:50 capricorn
pluto 24:24 leo 24:24 leo 24:24 leo

The interpolative process is simply a matter of subtracting the difference between the position on 10/15 and 10/16; multiplying this difference by the factor 1/4; and adding this new figure onto the position of 10/15.

After the computations have been done, the data is entered onto a chart form and the erection of the natal chart is complete.

The whole process should only take five to fifteen minutes with a bit of practice, or you may rely on astrological computer programs, using various house systems. The planetary positions need to be known only to the nearest degree; the interpolations can be done in one's head. In the example the only planet to change a degree or more was the moon. For placement on the natal chart, the planetary positions are rounded off to the nearest degree. One should always check all the planetary movements for interpolations, but usually a quick mental scan is sufficient for accuracy to one degree.

The foregoing instructions were for a birth west of Greenwich. If the birth was east of Greenwich, the same procedure would be followed except for one thing: the first correction factor (10 seconds per hour for time difference between Greenwich and place of birth) would be a minus factor and would be subtracted from the other figures.

Transposition of the planets to the 90 circle:

The ascendant and the midheaven points and the planetary positions are first entered on the inner circle of the C-2 form. This is the 360 degree zodiacal circle; the degrees progress in a counterclockwise direction.

The 90 circle is composed of three segments: 0 to 30, 30 to 60, and 60 to 90. The planets falling in cardinal signs (Cancer, Libra, Capricorn, Aries) are entered in the 0 - 30 segment. A planet in 10 Cancer would be entered in 10 of the 90 circle, as would be one

located at 10 aries. The planets falling in the fixed signs (Leo, Scorpio, Aquarius, Taurus) are entered in the 30 - 60 segment. A planet at 10 aquarius would be placed at 40 on the 90 circle. The planets falling in the mutable signs (Virgo, Sagittarius, Pisces, Gemini) are entered in the 60 - 90 segment. A planet at 10 Pisces is placed at 70 on the 90 circle.

Now the natal chart is ready for analysis and interpretation.

*

INTRODUCTION TO ALCHEMY IN JUNGIAN PSYCHOLOGY

Jung spent the better part of the end of his life studying the subject of alchemy. In typical "Jungian" style, his interest in alchemy developed from a vivid dream. Jung was amazed to find that the images and operations he encountered in the old alchemy texts related strongly to his theories of psychoanalysis and the unconscious. Therefore, his main research project at the culmination of his career was around this topic of alchemy and how it related to the process of consciousness. Jung saw in alchemy a metaphor of the process of individuation.

Jung elaborated most of his alchemical analysis of the psyche in three major volumes of his Collected Works. They include Alchemical Studies, Psychology and Alchemy, and the final volume *Mysterium Coniunctionis*. Since the publication of these there have been other works of interest produced by notable Jungian analysts. Among these are the following:

- 1). Foremost are the works of Marie-Louise vonFranz; she has written *Alchemical Active Imagination, Projection and Recollection in Jungian Psychology, Number and Time, and Alchemy; An Introduction to the Symbolism and its Psychology*, to name but a few.
- 2). Edward Edinger has given us the classical text, *Ego and Archetype plus Psychotherapy and Alchemy*.

Other contributors include Henry Corbin with *Spiritual Body and Celestial Earth*, on Arabic alchemy, M. Esther Harding's *Psychic Energy*, Robert Grinnell's *Alchemy in a Modern Woman*, and Edward Whitmont's *Psyche and Substance*. Some of the most recent work has been done by avante garde psychologist James Hillman. He is director of the Dallas Institute which specializes in Jungian Studies. His works appear in *Spring*, the *Journal for Archetypal Psychology*, and include pieces on the *Anima Mundi*, or Soul of the World, and articles such as "Silver and the White Earth." As its title suggests, *Spring* originated as a voice for archetypal psychology, but now most articles are in the perspective of Imaginal Psychology.

Then there are the classical texts of alchemy, themselves. Among these number such as *The Book of Lambspring*, *Aurora Consurgens*, *Codicillus* (by Raymond Lully), *Splendor Solis*, *Theatrum Chemicum*, and *The Alchemical Writings of Edward Kelly*. *Liber Azoth* and *De Natura Rerum* (among others) by Paracelsus. Other classics include *The Chemical Wedding of Christian Rosenkrutz* and *Rosarium Philosophorum* which Jung used to illustrate his work *The Psychology of the Transference*. Finally, there are the modern translations of older works by A. E. Waite which include *Turba Philosophorum*, *The*

Hermetic Museum, Lexicon of Alchemy, and The Hermetic and Alchemical Writings of Paracelsus. Even newer are the compendiums such as The Secret Art of Alchemy by Stanislas Klossowski De Rola and Alchemist's Handbook by Frater Albertus. Another Jungian contribution is Eliade's The Forge & the Crucible. For the lesser known treatises, Jung's bibliographies are a gold mine. Jung wrote the forward to the Taoist classic on alchemy, The Secret of the Golden Flower.

Most of us, unfamiliar with the subtle nuances of alchemical practice, view it as the historical predecessor of some of our modern sciences, like medicine, chemistry, metallurgy, etc. But, according to Jung's research, it seems to be much, much more. It is a curious fact that there is no single alchemy for us to examine. It is a cross-cultural phenomena which has been practiced in various forms by ancient Egyptians, Greeks, Romans, Christian Europeans, and the Islamic, Hindu and Taoist faiths. All of these use symbols to depict a process of transformation, whether this process is thought to occur inside (introverted) or outside (extroverted) of the human body. Although there are many types of alchemy, the main split seems to be between material (extroverted) and spiritual (introverted) alchemies. The deciding factor is the direction of the practitioner's creativity.

In his book, The Alchemical Tradition in the Late Twentieth Century, Richard Grossinger summarizes the basic components of the different alchemies, which he dubs 'planet science.' These include the following:

- 1. A theory of nature as made up of primary elements.**
- 2. A belief in the gradual evolution and transformation of substance.**
- 3. A system for inducing transmutation.**
- 4. The imitation of nature by a gentle technology.**
- 5. The faith that one's inner being is changed by participation in external chemical experiments.**
- 6. A general system of synchronistic correspondences between planets, herbs, minerals, species of animals, signs and symbols, parts of the body, etc., known as the Doctrine of Signatures.**
- 7. Gold as the completed and perfected form of the metals, in specific, and substance in general (Alchemy is the attempt to transmute other substances into gold, however that attempt is understood and carried out).**
- 8. The existence of a paradoxical form of matter, sometimes called The Philosopher's Stone (the lapis), which can be used in making gold or in brewing elixirs and medicines that have universal curative powers.**
- 9. A method of symbolism working on the simultaneity of a series of complementary pairs: Sun/Moon, Gold/Silver, Sulphur/Mercury, King/Queen, Male/Female, Husband/Bride, Christ/Man, etc.**

10. The search for magical texts that come from a time when the human race was closer to the source of things or are handed down from higher intelligences, extra-terrestrials, guardians, or their immediate familiars during some Golden Age. These texts deal with the creation or synthesis of matter and are a blueprint for physical experimentation in a cosmic context (as well as for personal development). They have been reinterpreted in terms of the Earth's different epochs and nationalities.

11. In the Occident, alchemy is early inductive experimental science and is closely allied with metallurgy, pharmacy, industrial chemistry, and coinage.

12. In the Orient, alchemy is a system of meditation in which one's body is understood as elementally and harmonically equivalent to the field of creation. (Between East and West, the body may be thought of as a microcosm of nature, with its own deposits of seeds, elixirs, and mineral substances).

13. Alchemy is joined to astrology in a set of meanings that arise from the correspondences of planets, metals, and parts of the body, and the overall belief in a cosmic timing that permeates nature.

Thus, alchemy deals fundamentally with the basic mysteries of life as well as with transcendental mysticism. But its approach is neither abstract nor theoretical, but experimental, in nature.

Just who were the alchemists, and why are their contributions important to us today? The alchemists were the leading explorers of consciousness in medieval times, and their research led to a vast improvement in the conditions of human life. Among the more famous are Albertus Magnus, Paracelsus, Nicholas Flammel, and Sir Isaac Newton. Their contributions not only improved the lives of their contemporaries, but influenced the thought of many philosophers in the same and later eras, such as Meister Eckhart, Thomas a Kempis, John Dee, Johannes Kepler, Thomas Vaughn, Bishop Berkeley, Emanuel Swedenborg, William Blake, and Goethe.

The contributions of these eminent alchemists are staggering: Albertus Magnus, alone, wrote eight books on physics, six on psychology, eight on astronomy, twenty-six on zoology, five on minerals, one on geography, and three on life in general from an Aristotelian point-of-view. He was a Dominican friar who was canonized a saint in 1931. Paracelsus was a Swiss born in 1493. His accomplishments were many and include being the first modern medical scientist. He fathered the sciences of microchemistry, antisepsis, modern wound surgery, and homeopathy. He wrote the first medical literature on the causes and treatment of syphilis and epilepsy, as well as books on illness derived from adverse working conditions.

Notwithstanding this accurate scientific bent, his work is in close accord with the mystical alchemical tradition. He wrote on furies in sleep, on ghosts appearing after death, on gnomes in mines and underground, of nymphs, pygmies, and magical salamanders. His world view was animistic. Invisible forces were always at work and the physician had to constantly be aware of this fourth dimension in which he was moving. He utilized various techniques for divination and astrology as well as magical amulets, talismans, and

incantations. He believed in a vital force which radiated around every man like a luminous sphere and which could be made to act at a distance. He is also credited with the early use of what we now know as hypnotism. He believed that there was a star in each man. (Mishlove). This sentiment was echoed by 19th century magician and alchemist, Aleister Crowley, who said, "Every man and every woman is a star." This alludes to the essential Self.

Kepler developed the laws of planetary motion. But he developed his theories on the basis of explorations into the dimly lit archetypal regions of man's mind as surely as on his mathematical observations of the planetary motions. He was clearly a student in the tradition of earlier mystic-scientist such as Pythagoras and Paracelsus. Thomas Vaughn, Robert Fludd and Sir Frances Bacon number among the 17th century Rosicrucians, who practiced not only alchemy, but also other hermetic arts and the qabala.

Sir Isaac Newton (1642-1727) was a mathematical genius, as well as one of the greatest scientists who ever lived. He discovered the binomial theorem, invented differential calculus, made the first calculations of the moon's attraction by the earth and described the laws of motion of classical mechanics, and formulated the theory of universal gravitation. He was very careful not to publish anything which was not firmly supported by experimental proofs or geometrical demonstration thus he exemplified and ushered in the Age of Reason.

However, if we look at Newton's own personal notes and diaries, over a million words in his own handwriting, a startlingly different picture of the man emerges. Newton was an alchemist. He devoted himself to such endeavors as the transmutation of metals, the philosopher's stone, and the elixir of life. He was intensely introspective and had great mental endurance. He solved problems intuitively and dressed them up in logical proofs afterwards. He, himself, was astounded by the startling nature of his own theories. Gravity is a problem that still hasn't been dealt with satisfactorily by scientists.

His followers, however, emphasized his mechanistic view of the universe to the exclusion of his religious and alchemical views. In a sense, their action ushered in a controversy in psychical research which has existed ever since. Since Newton's time, all discoveries suggesting the presence of a spiritual force which transcended time or space were ironically considered to be a violation of Newton's Laws--even though Newton himself held these very beliefs!

It is interesting to note, that today scientists actually can turn small amounts of lead into gold through particle acceleration, since they are only one atomic weight apart. Despite the advances in science, the "unknown" is still projected into the realm of matter, and the alchemical quest continues. Science is still debating over what is physical, what is psychic and what is metapsychic. VonFranz, in *Projection and Recollection in Jungian Psychology*, states that "In Western cultural history the transpsychic has been described sometimes as "spirit" sometimes as "matter." Theologians and philosophers are more concerned with the former, physicists with the later."

Von Franz points out that "what was once regarded as the opposition between spirit and matter turns up again in contemporary physics as a discussion of the relation between

consciousness (or "Mind") and matter." It bears on such questions as the bias of the observer, and the theories of relativity, probability, synchronicity, not to mention the whole field of parapsychology. Jung really returned us to the alchemistic viewpoint when he said, in *Aion*:

Sooner or later nuclear physics and the psychology of the unconscious will draw closely together as both of them independently of one another and from opposite directions, push forward into transcendental territory. ...Psyche cannot be totally different from matter for how otherwise could it move matter? And matter cannot be alien to psyche, for how else could matter produce psyche? Psyche and matter exist in the same world, and each partakes of the other, otherwise any reciprocal action would be impossible. If research could only advance far enough, therefore, we should arrive at an ultimate agreement between physical and psychological concepts. Our present attempts may be bold, but I believe they are on the right lines.

As VonFranz notes, "There is therefore no concept fundamental to modern physics that is not in one degree or another a differentiated form of some primordial archetypal idea." These include our concepts of time, space, energy, the field of force, particle theory, and chemical affinity.

Laws in physics are subject to scientific revolutions and there has been a major breakthrough in paradigm shifts about every 20 years, or each generation. VonFranz says, "As soon as an archetypal idea that has been serving as a model no longer coincides with the observed facts of the external world, it is dropped or its origin in the psyche is recognized. This process always coincides...with the upward thrust of a new thought-model from the unconscious to the threshold of consciousness."

This is basically the process of weeding out "scientific errors." "...scarcely a thought is given to what they might mean, psychologically, once they are no longer fit to serve as a model in describing the outer world." This certainly happened to alchemy, until Jung revived an interest in it. "It is only today, when we know that the assumptions of the observer decisively precondition the total results, that the question is becoming acute." Physicists have become increasingly conscious of the extent to which psychological circumstances influence their results.

Other experimental-minded persons have sought the mysteries of life and divinity within their own bodies, since ancient times. Whether known as Yogis or Adepts, their goal was basically the same, as we shall see.

Some modern schools of the Hermetic Arts see an identity between medieval European alchemy and the eastern practice of Yoga. They see a metaphysical or symbol correspondence between the planetary and metallurgical attributions of alchemy and the chakras. Yoga is also experimental in nature. The qualities of the metals correspond to the planets and chakras as follows:

Lead	Saturn	Sacral Plexus
Iron	Mars	Prostatic Ganglion
Tin	Jupiter	Solar Plexus
Gold	Sun	Cardiac Plexus

Copper	Venus	Pharyngeal Plexus
Silver	Moon	Pituitary Body
Quicksilver	Mercury	Pineal Gland

Alchemy is not concerned exclusively with consciousness, but also seeds the subtle transformation of the body, so that the physical level is also brought into perfect equilibrium. Thus, the alchemical metals may be considered analogous to the chakras of the yogis. We can draw another parallel among the three major principles of Alchemy and those of Yoga, which are known as the Gunas.

Mercury.....Sattva

Sulphur.....Rajas

Salt.....Tamas

The quality of Mercury is vital and reflective; it equates with the spiritual principles of goodness and intelligence; Sattva guna is illuminative. The quality of Sulphur is fiery and passionate like the principle of Rajas, which incites desire, attachment, and action. The quality of Salt is arrestive and binding, and reflects the gross inertia of matter, which is much like Tamas. These gunas and the three alchemical substances symbolize spirit, soul and body. Another "alchemical" way the gunas were applied concerns food: sattvic foods incline one toward meditation and the spiritual life (fruits, vegetables, and grains); rajasic foods are stimulating (i.e. spicy food); tamasic food incites the baser instincts (animal flesh).

The concept of four basic elements, harmonized in a fifth, is also common to both alchemy and yoga doctrine. The Indian elements are known as Tattvas. They are: Akasha (quintessence; Tejas or Agni (fire); Apas (water); Vayu (air); Prithivi (earth). Furthermore, the preparation for the practice of both alchemy and yoga requires a moral or ethical preparation. Both stress that evil tendencies should be overcome while positive virtues are developed. This includes both behavior and the purification of the various body centers. The objective is not wealth, but health or wholeness.

Alchemy also speaks of a "secret fire", which is often compared to a serpent or dragon. Here again, we find the correspondence to Kundalini, the serpent-power. Alchemy is performed by the aid of Mercury, the illuminative principle, and the powers of the sun and moon. The yogic system works in three channels in the subtle body of man. One equates with the sun, another with the moon. They are called ida and pingala. The third, or harmonizing channel, is known as sushumna, and is associated with illumination.

The yogi seeks to arouse the latent power of the Kundalini serpent so it rises up the chakra centers until it opens the third eye of mystical vision and illumination. Alchemists apply slow heat to their alchemical vessel to sublimate and refine the contents therein. The yogis use breath control, the alchemist bellows to control the fire. Interestingly, yogis have breath exercises called "breath of fire" and "the bellows."

In summary, the points of correspondence resulting in the alchemical production of a new kind of human being (one made hale or whole) are as follows:

- 1. Both systems agree that all things are expressions of one fundamental energy.**

2. Both affirm that all things combine three qualities: a. Wisdom, Sattva, superconsciousness or Mercury; b. Desire, Rajas, compulsion or Sulphur; c. Inertia, Tamas, darkness, or Salt.
3. Both recognize five modes of expression: Akasha, Spirit or the quintessence; Tejas or Agni (fire); Apas (water); Vayu (air); Prithivi (earth).
4. Both systems mention seven principle vehicles of activity, called chakras by yogis, and metals by alchemists.
5. Both say there is a secret force, fiery in quality, which is to be raised from one chakra or metal to another, until the power of all seven is sublimated in the higher.
6. Yoga says 1) Prana or Surya, sun, 2) Rayim, moon, and 3) Sattva, wisdom are the three main agencies in the work (or ida, pingala and sushumna). Alchemy says the whole operation is a work of the sun and moon, aided by Mercury.
7. Both systems stress preparation by establishing physical purity and ethical freedom from lust, avarice, vanity, attachment, anger and other anti-social tendencies.
8. Both allege that success enables the adepts to exercise extraordinary powers, to heal all diseases, and to control all the forces of nature so as to exert a determining influence on circumstances.

In short, what both alchemist and yogi do is 1). to recognize what goes on in his body, and 2). to use his knowledge of the control exerted over subconscious processed by self-consciousness to form a definite intention that this body-building function shall act with maximum efficiency creating increased vitality. This supercharge of libido then awakens the spiritual vision of the pineal gland to full activity. The Great Work of alchemy consists of stabilizing the vision of Light into a full realization. The by-product is that the body-building power of the subconscious changes the alchemist himself into a new creature.

Jung asserted that the medieval alchemists were unaware of the natural process of psychological transformation which went on in their subconscious. Therefore, they projected this process into their experiments. In other words, they projected an inner process outside of themselves. Had they been more conscious in their intent, or more sophisticated in their psychology like the yogis, they would have been more consistently successful.

But why is a study of alchemy relevant to our modern lives? We are not daily occupied in pseudo-alchemical experiments like the alchemists, or are we? In many metaphorical ways we are thinking like alchemists all the time. Also, Jung observed that the dreams of his clients repeatedly stressed the main alchemical themes, especially the conflict and union of opposites. The alchemical symbolism is widespread in dreams of modern individuals, and can shed light on these more primitive aspects of our subconscious life. It is important for our understanding of our own unconscious. In *Alchemical Active Imagination*, VonFranz states:

True knowledge of oneself is the knowledge of the objective psyche as it manifests in dreams and in the manifestations of the unconscious. Only by looking at dreams, for instance, can one see who one truly is; they tell us who we really are, that is something which is objectively there. To meditate on that is an effort towards self-knowledge, because that is scientific and objective and not in the interest of the ego but in the interest of "what I am" objectively. It is knowledge of the Self, of the wider, objective personality.

We could view alchemy as an antique form of therapy, which originally had the meaning 'to heal,' and the implication of 'service to the gods.' Psychotherapy basically means service to the psyche, and offers us a way to reconnect with our unconscious, thus experiencing wholeness. It also opens an avenue to increased physical health, since those ailments which remain unconscious often manifest as psychosomatic diseases. If we become conscious of the source of the dis-ease, it dissipates. Knowledge of alchemy's symbolism can lead us to psychological insight in terms of our own condition, especially that reflected in dreams.

Alchemy may be carried out as either a physical or mental operation. The Jungian orientation is primarily mental, though it might take a physical form. For example, you might choose to ritually "act out" certain aspects of the Great Work in active imagination. The Jungian interpretation that alchemy is a passive and unconscious process comes from a basically mental, or Greek orientation. The type of alchemy that aims at rejuvenating or preserving the physical body is descended from the physically-oriented Egyptian alchemy. The main traditions of conscious, inner spiritual alchemy come mainly from the Islamic and Oriental philosophies.

Jung's original interest in alchemy came from a dream he had of a library filled with arcane tomes from medieval times and the Renaissance. During the next 15 years he spent collecting this library, he learned to recognize the major symbols of the unconscious. He was reading about them in alchemy books and hearing about them in his patients' dreams and fantasies. Their projections told him of an inner quest, a sealed vessel, the conflict of opposites, a philosophical tree, a fountain of eternity, a golden flower, a Stone, a sacred wedding, etc.

Slowly Jung familiarized himself with their alchemical meaning. Then he, himself, became a living symbol of the healing power of the Philosopher's Stone. In his case this power manifested as the ability to heal on the mental level--in other words, to release any blocks hindering the natural process of growth and transformation. When proceeding in the direction of their individuation with self-realization. We should be careful here not to dichotomize between "mental" and "physical" too much or we will lose our proper alchemical perspective. Alchemy cannot be reduced to a metaphor of psychological or philosophical transformation--it requires first-hand experimentation.

Grossinger says that *"what Carl Jung recognized was that the stages of the alchemists also corresponded to a process of psychological individuation. The psychic stages were as precise and rigorous as the chemical ones by which they became imaginal. Furthermore, they generated a physical and even quantitative terminology for an undiagnosed tension of opposites in the human psyche arising from male and female archetypes, a struggle they sought to resolve by the creative unity of the chemicals in the Stone."* Alchemy sought to

unite Spirit (male), and Matter (female) through a Royal Union (coniunctio) to create their synthesis in the homunculus, hermaphrodite, or lapis. This is an alchemical metaphor of the process of spiritual rebirth.

The entire body of alchemical literature covers many variations on the theme of the Great Work. No single person will ever express all of the operations and symbols described in alchemy, just as no single person ever embodies the totality of the Self.

We each have unique experiences of the common roots of humanity or the collective unconscious. Thus, the various operations of alchemy come in different order for the various practitioners. The alchemical writings seem to contradict one another about the evolution of the process. Likewise, in dreams, we sometimes find the symbols of the end-product (like a mandala, or flower, or child) appearing at the beginning of the process. They symbolize what is latent and seeks manifestation.

Nevertheless in both alchemy and Jungian psychology there are classic stages in the process of individuation or personal experience of the unconscious. One major recurrent theme in modern dreams is the symbolism of the planets, which correspond with the alchemical metals. These metals, or planets (astrology), or Spheres (QBL) can be understood psychologically as the building blocks of the ego, which forms itself from fragments of these divine, archetypal qualities. These spiritual principles seek concretization through the unique experience of an individual ego. This links spirit and matter.

The sacredness of the Opus, or Great Work, is the central idea behind alchemy. One must be self-oriented, rather than ego-oriented. The adept is also diligent, patient and virtuous. In other words, in order to create the Stone, you must have the potential within yourself for self-realization--for becoming whole or 'holy.' It requires an inward seeking, just like the process of individuation. It is a solitary task for no one may follow where you go. But there may be guides who will help inspire your faith and dedication to the task. Others have been to the territory you will explore, but none will accompany you.

The secret of alchemy is that it is a personal journey of transformation, and cannot be explained but only experienced. It is "eating the dish", not just reading about it in an alchemical cookbook. Its effects must be channeled into spiritual growth, for if alchemy is used to gratify personal desire the work is lost. This means the ego gets inflated with its own importance when the real power source lies within the Self. This naturally produces a regression back into an unconscious state, back to the prima materia. The instinctual urge for growth and transformation lies within us. For this urge to be considered evolutionary requires that the ego must cooperate quite deliberately and consciously with the Self. This leads toward self-realization.

The main purpose of the Opus is "to create a transcendent, miraculous substance which is variously symbolized as the Philosopher's Stone, the Elixir of Life, or the universal medicine (panacea). The procedure is, first, to find the suitable material, the so-called prima materia, and then to subject it to a series of operations which will turn it into the Philosopher's Stone." (Edinger, 1978). The First Matter is a homogenous unity of Mercury, Sulphur and Salt. It is therefore 'three,' but can also be expressed as 'four' elements, which are again essentially 'one.' Jung felt that the secret of the psyche was contained in this

question of the 'three' and the 'four.' In alchemy it is expressed as the axiom of Maria Prophetissa: "Therefore the Hebrew prophetess cried without restraint: 'one becomes two, two becomes three, and out of the third comes the One as the fourth.'" Today, physicists echo this statement when they call 'plasma' both the fourth and first state of matter (the others being liquid, gas and solid).

In Jungian psychology, the prima materia is the original undifferentiated condition of ordinary consciousness, which is really unconsciousness. Mystics of all times have repeated that in the ordinary state we are all asleep or even "dead" to the true Reality. In psychology the four-fold nature of the prima materia is expressed by the four functions which correspond with the alchemical elements: intuition (fire), thinking (air), feeling (water), and sensation (earth). In Jungian theory we have a dominant function and limited access to one or two others, but the fourth function is inaccessible, maladapted or hard to integrate. It is what keeps us from "getting it all together." Thus, we are out-of-balance.

Balancing the four functions means achieving an integrated personality, balance, and high well-being. This requires undergoing a symbolic process of the union of opposites, which is what both alchemy and Jungian analysis are all about. Both alchemy and Jungian psychology require a period of depth analysis (solutio) to distinguish the original, undifferentiated contents. The ego learns what part of the personality comes from itself and which parts from the Self. It reflects on its own components parts (subpersonalities) and learns to see itself as a small part of a greater whole, the larger unity of the Self. Edinger says, "The fixed, settled aspects of the personality which are rigid and static are reduced or led back to their original, undifferentiated condition as part of the process of psychic transformation," i.e. back to a state of 'innocence.'

Further, Edinger compares the problem of discovering the prima materia to the problem of finding what to work on in psychotherapy. He gives some hints:

(1) It is ubiquitous, to be found everywhere, before the eyes of all. This means that psychotherapeutic material likewise is everywhere, in all the ordinary, everyday occurrences of life. Moods and petty personal reactions of all kinds are suitable matter to be worked on by the therapeutic process.

(2) Although of great inward value, the prima materia is vile in outer appearance and therefore despised, rejected and thrown on the dung heap. The prima materia is treated like the suffering servant in Isaiah. Psychologically, this means that the prima materia is found in the shadow, that part of the personality which is considered most despicable. Those aspects of ourselves most painful and most humiliating are the very ones to be brought forward and worked on.

(3) It appears as a multiplicity, "has as many names as there are things," but at the same time is one. This feature corresponds to the fact that initially psychotherapy makes one aware of his fragmented, disjointed condition. Very gradually these warring fragments are discovered to be differing aspects of ones underlying unity. It is as though one sees the fingers of a hand touching a table at first only in two dimensions, as separate unconnected fingers. With three-dimensional vision, the fingers are seen as part of a larger unity, the hand.

(4) The prima materia is undifferentiated, without definite boundaries, limits or form. This corresponds to a certain experience of the unconscious which exposes the ego to the infinite...It may evoke the terror of dissolution or the awe of eternity. It provides a glimpse of the pleroma,...the chaos prior to the operation of the World-creating Logos. It is the fear of the boundless that often leads one to be content with the ego-limits he has rather than risk falling into the infinite by attempting to enlarge them.

The different operations to transform the prima materia follow as the natural consequence of finding the material to work on. The imagery associated with these operations is profuse and draws from myth, religion, and folklore. The symbols for all these imagery-systems comes from the collective unconscious. There is no set number of alchemical operations, just as there is no set number or order to archetypes.

However, certain of the operations seem to recur more often in the literature and experience. We could consider these as the skeletal frame of the alchemical process. Their order switches around also. Edinger lists seven operations which seem to typify the major transformations of the alchemical process. These include: calcinatio, solutio, coagulatio, sublimatio, mortificatio, seperatio, and coniunctio. Other major operations include nigredo, albedo, rubedo, solificatio, multiplicatio, projectio, separatio, circulatio, and more.

We can detail the nature of each of these operations later. For now it is enough to grasp the overview, which is best stated by Jung, himself, in *Mysterium Coniunctionis*: "...the alchemist saw the essence of his art in separation and analysis [solve or solutio] on the one hand and synthesis and consolidation [coagula or coagulatio] on the other. For him there was first of all an initial state in which opposite tendencies or forces were in conflict; secondly there was the great question of a procedure which would be capable of bringing the hostile elements and qualities, once they were separated, back to unity again.

The initial state, named chaos, was not given from the start but had to be sought for as the prima materia. And just as at the beginning of the work was not self-evident, so to an even greater degree was its end. There are countless speculations on the nature of the end state, all of them reflected in its designations. The commonest are the ideas of its permanence (prolongation of life, immortality, incorruptibility), its androgyny, its spirituality and corporality, its divinity and its resemblance to man (homunculus)."

He goes on to point out what this might mean psychologically. We could view it as conflicting drives originating on the spiritual, mental, emotional, and physical levels creating splits in the personality. Jung says that, "The obvious analogy, in the psychic sphere, to this problem of opposites is the dissociation of the personality brought about by the conflict of incompatible tendencies, resulting as a rule from an inharmonious disposition. The repression of one of the opposites leads only to a prolongation and extension of the conflict, in other words, to a neurosis. The therapist therefore confronts the opposites with one another and aims at uniting them permanently. The images of the goal which then appear in dreams often run parallel with the corresponding alchemical symbols."

He reiterates the value of accessing the alchemical symbolism for increasing insight. "Investigation of the alchemical symbolism, like a preoccupation with mythology, does not

lead one away from life any more than a study of comparative anatomy leads away from the anatomy of the living man. On the contrary, alchemy affords us a veritable treasure-house of symbols, knowledge of which is extremely helpful for an understanding of neurotic and psychotic processes. This, in turn, enables us to apply the psychology of the unconscious to those regions in the history of the human mind which are concerned with symbolism."

Each of the operations of alchemy functions as the center of focus of an elaborate symbol-system. Other symbols which are related to the operation cluster around the theme of the operation--they share a common essence. These central symbols provide basic categories which we can use to understand our own personal psychic life, and even the transformation processes of others. Taken together, the alchemical operations illustrate almost all of the full range of experiences which are involved in the process of individuation.

As Grossinger points out, "Alchemy is thus a form of chemical research into which unresolved psychic elements were projected. The alchemical nigredo, the initial phase of the operation which produces 'black blacker than black,' is also an internal experience of melancholia, an encounter with the shadow." But this is also the necessary first stage in Jungian analysis--confronting that which has been rejected or repressed is essential to becoming whole. This realm of the shadow can often provide more real substance for the spiritual quest than mimicking the teachings of a spiritual master without really changing oneself. Though stumbling around in the dark seems frustrating, if it is honest and heartfelt, and one really grapples with the shadow problem, the way is cleared for progress that will be sustained by a firm foundation gained in the early phases.

Throughout the alchemical process, the lapis functions as an inner guide by presenting itself in diverse symbolism. It symbolizes the growing manifestation of your latent potential for wholeness. It frequently manifests in mandala symbolism. This includes such forms as a revolving wheel or the zodiac, the petals of a magnificent flower, or a serpent eating its tail. As a grand union of opposites, it symbolizes the unification of king and queen, man and wife, conscious and unconscious, personality and society, etc. in a royal union called the Marriage of the Sun and Moon in alchemy. Alchemy is a means of understanding our unconscious projections of archetypes into the world.

In "Spiritual Development as Reflected in Alchemy and Related Disciplines," Rudolf Bernoulli summarizes the basics of extroverted and introverted alchemy. He says, "There are two kinds of alchemy: one strives to know the cosmos as a whole and to recreate it; it is in a sense the precursor of modern natural science. It aspires to create gold as the supreme perfection in this sphere...The other alchemy strives higher; it strives for the great wonder, the wonder of all wonders, the magic crystal, the philosopher's stone."

This is not a substance susceptible of chemical analysis. It does not represent a spiritual or psychological state that can be reduced to a clear formula. It is something more than perfection, something through which perfection can be achieved. It is the universal instrument of magic. By it we can attain to the ultimate. By it we can completely possess the world. By it we can make ourselves free from the world, by soaring above it. this is alchemy in the mystical sense...The goal is reached only when a

man succeeds in creating the...stone within himself, and this is made possible only by the intervention of the 'inner master.'" i.e. the Self.

--von Franz, *Psychic Energy*, p. 452-3

Psychologically...the union of body and spirit or of conscious and unconscious can be safely attempted only when both have undergone a purification brought about by the earlier stages of analysis, in which the conscious character and the personal unconscious are reviewed and set in order.

In the alchemistic literature there is evidence that the mysterious coniunctio took place in three stages. The first is that of the union of opposites, the double conjunction, which chiefly concerns us here. The second stage effects a triple union, that of body, soul, and spirit; or, as it is said elsewhere, "the Trinity is reduced to a Unity."

In *the Book of Lambspring*, published in 1625, this triple union is represented first by two fishes swimming in the sea, pictured with the legend, "The sea is the Body, the two fishes are the Soul and the Spirit", and later by a second picture showing a deer and a unicorn in a forest, with the following text:

In the Body [the forest] there is Soul [the deer] and Spirit [the unicorn]...He that knows how to tame and master them by art, and to couple them together, may justly be called a master, for we rightly judge that he has attained the golden flesh.

The literature offers far less material about this more advanced stage of the work than about the simple coniunctio, and still less about the third stage, the union of the four elements, from which the fifth element, the "quintessence," arises. However, Jung's latest works are largely concerned with the problems of this fourfold coniunctio, through which not only are the personal parts of the psyche--ego and anima, or ego and animus--consummated, but these, in a further stage of development, are in turn united with their transpersonal correlates--wise man and prophetess, or great mother and magician (under whatever names these superordinate elements are conceived. ...The subject is by no means simple, but it amply repays careful study.

b. Alchemical Imagination: Making Psyche Matter

We should now proceed to find a neutral, or unitarian, language in which every concept we use is applicable as well to the unconscious as to matter, in order to overcome this wrong view that the unconscious psyche and matter are two things.

--Professor Wolfgang Pauli

In the alchemical search for the God-head in matter (Kether in Malkuth), Paracelsus contended that matter was a living counterpart of the creating deity. A system of correspondences is the foundation of alchemy. The conception of a primal event manifested in different fields is fundamental to alchemy. The process in the retort vessel is analogous to the process of transformation of the psyche. Through alchemy, we can perceive the parallels between microcosm, universe, and man. Alchemy is based on the assumption that the equation world = man = God is Truth.

The metaphysical perception of alchemy grew in the Jungian school of psychology. It emphasizes the process of psychological transformation. This is the Opus, or Great Work of alchemy. It is given this appellation because that which "works" is that which has the power to transform. The experiments are performed on oneself. This renews the alchemical philosophy which is primarily concerned with the union of psyche and matter. There is an indissoluble unity in alchemy between theory and practice. They are explicate aspects (which are experienced through a metaphorical sensory perception) of the Quest, or attainment of immortality through the union of opposites. Thus, the goal of the Opus is precisely this union, which is known as the Philosopher's Stone, Royal Marriage, or Unus Mundus (experience of one world view uniting psyche/body/spirit).

Paracelsus described alchemy as the voluntary action of man in harmony with the involuntary action of nature. If the center of the creative process takes place in the "heart of man", his intentions take on profound significance. They can now influence the destiny of the cosmos. Attainment of this state is known as the production of the Diamond Body.

Alchemy strives for the experience of spiritual rebirth via the union of opposites, or the sacred marriage. The sacred marriage is characterized as the union of the Sun (+0 and Moon (-). These polarized positions may be symbolized variously as positive-negative; male-female; god-devil; spirit-matter; father-mother; etc. The sacred marriage, or coniunctio, creates a bond by which opposites are united in an image which transcends both original potentials. The whole art of alchemy is contained within the image (implicate order) of a magical or divine child.

There is an inherent paradox in alchemy: all the while stressing redemption of the physical body, or matter, alchemy is actively striving toward creation of a subtle, immortal body, which has no apparent physical basis (magical child = body of light).

This central problem in alchemy is the spiritual redemption of the physical body. Alchemy requires resurrection of the soul of body. The challenge one encounters is to "see through" to a unified vision of mundane physical processes with spiritual values. This develops awareness of the ordering processes inherent in matter. The solution is to visualize the physical body as a metaphor for psychic transformation.

[INSERT DRAWING; ALCHEMICAL TREE]

...the mystery of the structure of the universe, was in themselves, in their own bodies and in that part of the personality which we call the unconscious, but they would say in the life of their own material existence...They thought that instead of taking outer materials you could just as well look inside and get information directly from that mystery because you were it. After all, you too were a part of the mystery of cosmic existence, so you could just as well watch it directly. Even further, you could ask matter, the mystery of which you consist, to tell you what it is, to reveal itself to you. Instead of treating it like a dead object to be thrown into a vessel and then cooked in order to see what came out, you could just as well take a block of iron, for instance, and ask it what it was, what its kind of life was, what it was doing, how it felt when melted. But since all these materials are within you, you can also contact them directly and in that way they contacted what we would now call the collective unconscious,

which to them was also projected into the inner aspect of their own bodies. They consulted these powers directly through what they called meditation and therefore most of these introverted alchemists always stressed the fact that one should not only experiment outwardly but should always insert phases of introversion with prayer and meditation and a kind of yoga. With yoga meditation you try to get the right hypothesis, or information, about what you are doing or about the materials. Or you can, for instance, talk to quicksilver, or to iron, and if you talk to quicksilver and iron then naturally the unconscious fills up the gap by a personification. Then Mercury appears to you and tells you who the sun God is. A power, the soul of Gold, appears and tells you who and what it is. (16)

So, we see that basically the dynamic impulses of the original alchemists and modern physicists is the same. Namely, to find out all that is possible about how God works.

This Opus, or Work, is understood as taking place in a sealed retort vessel. The nature of this vessel is the origin of the common-use term, "Hermetically sealed." This containment insures that none of the ingredients will be lost, and also provides a container in which the contents are slowly heated, or cooked (calcinatio). The initial material (prima materia) then goes through several stages of transformation, defined as operations. These are not always presented in the same sequence in alchemical texts. Most, however, include sublimatio (separating), and coniunctio (uniting). There are also operations of circulating, multiplying, and reiterating.

The meditatio, or meditation, consists of inner dialogue with the alchemical figures: Saturn=lead; Luna=silver; Sol=gold; Mercury=quicksilver; Venus=copper; Mars=iron; Jupiter=tin. Because the process of alchemy does not extend into God-Realization. This does not exclude this from occurring through God's grace, however. Then Kether is in Malkuth, the beginning (prima materia) and end (ultima materia) are One. In alchemy, the Anima Mundi, or Soul of the World acts as the soul-guide to the highest region. We experience An-imaginal (Anima-ginal) Reality.

[INSERT PICTURE; ULTIMA MATERIA]

Always remember that the body is of vital importance in any alchemical operation. To transcend somewhere out of the body is not alchemical practice; rather, imagine the body NOWHERE, or now-here. Alchemy is

...a physiological mythology juxtaposed with a cosmogonic mythology. In between is the psyche itself-the arcane substance, the subjective factor-which achieves a personified level in the divinities of mythology. It is the psyche's own image-making activity, its self-creation through symbols, that is central to this model. It represents a process of the "psychization of instinct," the transformation of instinctual and biophysical phenomena into psychic experience. These phenomena can then to a certain extent be brought within the range of conscious will and reason. In this process instinct loses some of its primordial autonomy. It is an opus contra naturam, so to speak...Alchemy accordingly gives us a model for the psychology of projection; it points at once "upward" and "downward." It is radically symbolic in its insistence on the "arcanum." And finally, in the obligation it imposed for the careful elaboration of

theoria, it included the formation of apperceptive concepts and symbols as a fundamental part of the opus . (17)

What happens to body/soul at the level of Malkuth? The process of alchemical initiation begins with the stage known as *Mortificatio*, or psychological masochism. This is the disintegration of the conscious personality. It is specifically a religious crisis in the life of the individual, where ruling ideas lose their meaning. Needless to say, this is a depressing state of being. This depression is imaged in terms of "blackening" and has, therefore, to do with the Shadow. The actual process occurs on XXI. The Universe, which corresponds with the *Nigredo*.

To derive pleasure from punishing one's body is a curious pathological image. The unheroic, self-humiliation is a form of masochism with a religious aim: to gain forgiveness through a mode of redemption. This dedication to suffering produces meaning, compassion, humility, and healing. This is a discipline of the soul which contradicts the ego attitude.

There is a relationship between ritual flogging in initiation ceremonies and the intoxication of masochistic mortification. The participant is entranced and enters the transformative process. The combination of humiliation and pleasure yields an experience of ambivalence, a primal condition of psyche.

Mortificatio is a psychological operation, not a moral one. We cannot apply a moral frame of reference to it; it is neither good nor bad, better nor worse. It is a necessary, just-so operation. One alchemical text advises, "Take the old black spirit and destroy and torture it..." Another philosopher tells us that "The tortured thing, when it is immersed in the body, changes it into an unalterable and indestructible nature." So the operation is necessary, not to make us morally better or spiritually purer, but rather to change us. When we immerse masochistic material in the body of fantasy, psyche and psychic reality become indestructible. The operation is necessary, not for the sake of moral ego-strengthening, but to make hard psychic reality. If we could fully realize this, that mortification is a way into the weighty, heavy matter of the soul, it might help us get past the momentary cringe. For we cringe and shrink at the moment of realization, at the reality of psyche where there is no ego-control, especially in its ugliness or banality. (18)

Do not confuse masochism, which is a religious attitude to suffering, with martyrdom, which is a manifestation of the neurotic, heroic ego.

The movement from martyrdom to masochism is also a movement from guilt to shame, and this movement has the quality of depth. Guilt is primarily an ego phenomenon, while shame is a quality of the soul. The antidote for guilt is not always forgiveness; it lies rather in the perception of the archetypal dimension in which the ego is caught. Guilt implies the possibility of rectification, of righting the wrong; hence the ego-protests and justifications which are variations on the martyr's theme: "Well, I'm trying!" and "You make me feel guilty," and "If I only had more will-power."

But shame belongs to the dimension of soul, and implies the permanence of a deficiency, the impossibility of rectification (and also of justification). It is the sense of permanent lack, insufficiency, inadequacy, which cannot be made right or corrected by any activity of the ego--no amount of will power, strivings for perfection, or withdrawal of demands from other people will do the trick. In its very nature, its "natural state", the soul is incomplete, and the experience of its incompleteness is the experience of shame. Guilt is a moral category, shame belongs to psychological experience and the experience of psyche. (19)

4. ORIENTATION/EXERCISE

a. The Banishing Ritual and Psychological Orientation

In the realm of sacred space, its most striking manifestation is religious man's will to take his stand at the very heart of the real, at the center of the World, that is, exactly where the cosmos came into existence and began to spread out toward the four horizons, and where, there is possibility of communication with the gods, where he is closest to the gods. Every religious man places himself at the Center of the World and by the same token at the very source of absolute reality, as close as possible to the opening that ensures him communication with the gods.

--Mircea Eliade/*The Sacred and the Profane*

The Banishing Ritual and Middle Pillar Exercise are particularly effective because they are a ritual enactment of the basic Creation Myth. In his book, *The Sacred and the Profane*, Mircea Eliade states,

The creation of the world becomes the archetype of every human gesture, whatever its plane of reference may be. Every construction or fabrication has the cosmogony as paradigmatic model.

Techniques of orientation, or aligning oneself to the directions, are designed for the construction of sacred space. The more closely a ritual reproduces the work of the creator gods, the more effective it is in producing the appropriate results.

The model for the creation of sacred space begins from a center and projects horizons in the four cardinal directions: East-West, North-South. This model has been followed throughout history when settling new territory or in the founding of cities. Any individual resides at the center of his/her own existence.

This quadrated circle sets up the conditions necessary for us to enter into the sacred time/space of the archetypes. We may contact the gods through the medium of the sacred pole or cosmic pillar. The Middle Pillar Exercise is a particularized form of this sacred connection.

Sacred time appears under the paradoxical aspect of circular time, reversible and recoverable, a sort of mythical eternal present that is periodically reintegrated by means of rites.

When we enter this psychic region, we experience the feeling of immortality, since our soul is in a time which is equivalent to the "beginning." The principle characteristics of sacred space include the following:

- (a). A break in the homogeneity of space;
- (b). This break is symbolized by an opening where passage from one cosmic region to another is facilitated (i.e. between heaven and earth, earth and the underworld);
- (c). Communication with heaven is expressed by variants of the Cosmic Pillar, which stands erect at the Center of the World.

This Pillar is a useful symbol for the Ego-Self Axis, or the connection between the conscious and subconscious principles of existence. Forming the link between ego-consciousness and the Self, it represents both aspects of the soul working together in harmony. It is known in Magick as the Knowledge and Conversation of the Holy Guardian Angel.

The Banishing and Middle Pillar Exercises conform precisely to the creation myth. Since a myth is a paradigmatic model, one can easily understand how it can be a very effective exercise. It establishes your relationship to the cosmos and your conscious relationship to totality. Eliade has said:

What men do on their own initiative, without a mythical model, belongs to the sphere of the profane; hence, it is a vain and illusory activity, in the last analysis, unreal. The more religious a man is, the more paradigmatic models he possesses to guide his attitudes and actions.

With this in mind, we may examine how the Banishing Ritual produces an effective orientation and transformation in the psyche of the aspirant.

1). Construct a circle. In order to "ground" our imagery of the surrounding circle, it is necessary to have a physical model in the beginning of magickal practice. Hammer a spike into the dirt. Extend a string from it which is used for a radius, and inscribe a circle in the dirt. If you have no suitable place which is private enough, purchase two 4'x8' masonite panels and paint a portable model on your floor. Walk around in the circle to get a "feel" for your working area. By placing your body in the circle, you will get a feeling for your special spot, then later this circle is internalized. Visualization will allow you to set up your circle at will, once its lineaments are firmly in mind.

In alchemy, this sacred area was created through a process known as circumambulatio. It promotes focus or concentration on the center. An indirect approach to the center was provided through circumambulatio. In setting off the circumference of your magical circle, you enact this primary deed. It prepares the mind for the influx of archetypal energies. The circle is a receptive, feminine symbol. For a brief exercise, dance slowly into the center, proceeding with a spiral motion.

2). Return to the center of the circle. Imagine a stream of white light flowing into your body from above. This scintillating rod of light penetrating the body, is the masculine force of the spirit. It traverses the planes of existence from spirit to matter. It transforms and

connects instinct to archetype. The light may be visualized as extending from a point above the head, widening into a cone shape which is widest at the feet.

3). Perform the Qabalistic Cross (facing East). This affirms the basic structure of The Tree of Life, interpenetrating the physical body, and ordering processes.

1. Touch the forehead, say ATOH (Thou art).
2. Bring the hand down toward the feet, saying MALKUTH.
3. Touching the left shoulder, say VE-GEDULAH.
4. Touching the right shoulder, VE-GEVURAH.
5. Crossing the hands over the breast, say LE-OLAHM.

AMEN

This is repeated when closing the circle at the end of your rite.

4). Orientation Ritual. There are several extant variations on the theme of the Banishing rite. These include The Lesser Ritual of the Pentagram, and Lesser Ritual of the Hexagram, used in the defunct Order of the Golden Dawn, and the active Ordo Templi Orientis (O.T.O.). (20) Another variation is the Setting of the Wards of Power in the Aurum Solis (A..S..). (21)

These rituals begin by quadrating the circle. One form (Golden Dawn) proceeds to the right, turning clockwise E. - S. - W. - N. The other, (Aurum Solis) moves to the left to clear the area, and then to the right to invoke the angels. Since it is traditional that a widdershins movement (leftward or counterclockwise) is a banishing movement, and clockwise motion invokes forces, this detail of the A..S.. ritual seems preferred.

The quadrated circle symbolizes the wholeness of four elements united in the center. This sets up a field with two polarities, synthesized in a central unifying principle. Four is the minimum number of divisions of a circle which represents wholeness.

The four (forms), as it were, a frame for the one, accentuated as the centre...By unfolding into four it acquires distinct characteristics and can therefore be known...So long as a thing is in the unconscious it has no recognizable qualities and is consequently merged with the universal unknown, with the unconscious All and Nothing...But as soon as the unconscious content enters the sphere of consciousness it has already split into the "four," that is to say it can become an object of experience only by virtue of the four basic functions of consciousness. It is perceived as something that exists (sensation); it is recognized as this and distinguished from that (thinking); it is evaluated as pleasant or unpleasant, etc. (feeling); and finally, intuition tells us where it came from and where it is going...The splitting into four has the same significance as the division into the horizon into four quarters, or the year into four seasons. That is, through the act of becoming conscious the four basic aspects of a whole judgement are rendered visible. (22)

In alchemy, the center was the quintessence, or spiritual aspect of matter, which is the basis of the elements. A mandala is a magical circle representing ultimate unity of inner and outer reality. The magical circle is a tool for experiencing the rationally unknowable. The four principles which the aspirant manifests include:

- 1. openness, or receptivity;**
- 2. plurality of consciousness, or a condition of multiple possibilities;**
- 3. engagement, where the individual confronts the continuum with "right action" or personal intervention;**
- 4. integrability, which indicates a digestible amount of experience of cosmic consciousness.**

A unique moment of perfection emerges from the latent continuum. The intervention of this ordering principle promotes realization in consciousness of the underlying unity in creation.

The stable, cohesive nature of the boundary of the circle is represented by its division into 4 parts. 'Four' is the number which represents the soul. 'One' represents God, or God-Realization. Giordano Bruno, 16th Century alchemist, defined magic as "that which unites the soul with God through love." So, this basic orientation ritual is a graphic representation of the unification of material and spiritual realms through mutual interpenetration. The aspirant is the nexus point of the operation where these principles are commingled. Spirit is manifested, and matter ennobled. The soul is protected from disintegrative influence and reconstituted positively, using right action and visualization.

This timeless world is conducive to synchronistic or parapsychological phenomena. This doesn't mean miraculous manifestations of desires or ego-control fantasies. This realm operates on determined patterns of probability. Its proper use is for meditation which leads the personality toward inner concentration and unification.

NO MAGIC SHOULD EVER BE PERFORMED OUTSIDE OF A CONSECRATED CIRCLE.

Anthropologists have noted that ritual and play cannot be separated in primitive civilizations. They interpenetrate and overlap one another. Rituals and games are alike in that both require complete sincerity and complete detachment from wishes and desires. To avoid the trap of "cheating", one has to be passionately involved, but sacrifice any personalistic desire. This reflects a basic religious attitude. Rituals and games need fixed rules and certain specific images to govern their proper unfolding, but they are not completely rigid. A certain amount of playful personal freedom is inherent in the unique artistic execution of a rite or game. Do not conduct your ritual mechanistically; an error in form is more excusable than a faulty approach or attitude. Try to cultivate and maintain a joyous, playful orientation.

Magick is called the Great Work, because what "works" is that which has the power to transform...not because it is conducted in a spirit of disciplined drudgery.

ORIENTATION RITUAL

b. Psychic Equilibration and the Middle Pillar Exercise

To my mind, the exercise described as the Middle Pillar is the groundwork of all actual developmental work. It is a process which is the basis of Magic. That this has been but seldom realized is obviously at the root of the futile attempts to do Ceremonial and perform Ritual, of which the general public hears every now and again. Even students of Magic of many years standing have been guilty of negligence in this respect, and also in failing to recommend it to their successors.

--Israel Regardie/*The Middle Pillar*

The circuit of the Tree of Life represents All possible experiences of human existence. The spheres represent modes of being, while paths are transitional phases between them. The Middle Pillar Exercise circulates the consciousness of the aspirant around all these aspects. The practice of its visualization begins activating only the spheres of the Middle Pillar, in line with the vertical axis of the body. Later, when some proficiency has been acquired, the spheres of the side pillars are added. We then have the entire diagram of the Tree interpenetrating, and ordering all planes from physical to spiritual. This is a fairly profound image produced with a minimum of graphic elements.

Intonation, or vibration, of the God-names makes it easier to drop into the theta and alpha state which Middle Pillar encourages. They are not sung, but rather droned or chanted so that a tingling resonance can be felt to emanate from the corresponding physical center. Experiment with the pitch of your voice to produce a rich, sonorous tone. Put feeling in it, and add your own dramatic interpretation. You set up a feedback system with yourself, and the more often the sequence from intonation to brain wave pattern is reinforced, the easier it will become for you to create this state. Eventually, the aspirant could perform the exercise in the most distracting of situations without loss of concentration.

The goal of Middle Pillar Exercise is the eventual formation of the Philosopher's Stone, or Diamond Body. Many phases of transformation are necessary to work toward this task. One of the operations necessary for the production of the stone is the alchemical circulatio, or circulation of consciousness around the aspects of being. This circulation of the light (consciousness) unites diverse centers. This circulation of one's true, creative, formative energies produces a sense of joy and intoxication, as if one had been freshly bathed. It opens up the reality of an inner world, which serves to break the soul's dependence on the phenomenal world.

Circulation fixes the light. In fact, it builds a body of light, which makes the enlightenment a permanent condition. The light must be visualized as permeating the body, not only inside or outside. While the light means clarity, perception and enlightenment of understanding, as you circulate it around your body, there should be a perceptible physical sensation, as well. Once you begin your meditation, there should be no interruptions; end and beginning are one. To be effective at all, the confirmation in the light should last for a minimum of 15 minutes. Circulatio, or circulation of the light, combines the alchemical

operations of sublimatio and coagulatio. Sublimation means generally to have an ennobling effect, and coagulation means to solidify.

During circulatio, one sublimates body and coagulates spirit. Circulation around the aspects of being leads to an equilibrium where one is contained within the opposites. Spirit penetrates soul, and soul envelops spirit. When spirit and soul unite, thoughts are immobilized. The soul "crystallizes" and spirit becomes an effective influence in the personality. This is real-I-zation of the Diamond Body, or Self. The phenomena which used to be experienced as (external or internal light) is now perceived as psychic revelation.

This balancing is a delicate process. It must be performed by the right person at the right time. Sublimatio consists of spirit and soul ascending and descending from lower to higher, and higher to lower, in the imaginal realm. Through it, the spirit hidden in matter becomes visible. Sublimatio is the alchemical form of resurrection.

Sublimatio, psychologically, is the process of raising concrete, personal experience to a higher level, a level of abstract or universal truth. Coagulatio, in contrast, is the concretization or personal realization of an archetypal image. (23)

Sublimatio is a vertical, solar activity. Coagulatio is feminine, or lunar in quality. Excess quantities of either of these potencies may have destructive effects. This is the value of a balancing ritual. The solar-libido, which is creative and life-promoting, may be experienced as scorching dryness or fiery anger. The lunar-libido also has negative forms, which are literal "bring downs." These modes of psychic energy have a wide range of powerful effects on human experience.

Through disciplined use of a balancing ritual, the solar-principle provides an increase in understanding and an expanded field of awareness. The Stone's lunar portion materializes elusive intuitions and spiritual potential. One submits willingly to the transpersonal totality of psyche. This marriage produces the Philosopher's Stone through circulation.

Sublimatio is the vertical, Middle path and corresponds with the element Air. In QBL, Shekinah is the Middle Pillar. She meditates the ascents and descents of the soul and spirit. Through her, the ten spheres of the Tree of Life slowly sublimate into Kether, the Crown (Primordial Air). The "ascents and descents" of the soul are characterized in ancient lore as Angels. An example of this imagery is the story of Jacob's Ladder.

The Supernal Triad (top 3 spheres of the Tree of Life) represents the three aspects of knowledge: the Crown, Wisdom (the Knower), and Understanding (that which is known). In Kether, the Crown, all opposites reside in total union. It reconciles oppositions which are distributed throughout the other spheres.

One may be redeemed through this self-knowledge. But there is great danger in direct revelation of the archetypal psyche. The danger lies in calling up the pure archetype, which ego-consciousness is never able to assimilate or integrate. Therefore, never invoke Spheres, but always use Pathworking. If one succumbs to the disintegrative effect, the personality is annihilated in the Abyss of the transcendent imagination. This is the psychological equivalent of drowning. The alternative is release from the personal ego attitude toward

active participation within the archetypal dimension. Behavior does not become archetypal. It already is, if only you care to notice.

Dreams, Active Imagination, and the practice of Ceremonial Magick may be seen as forms of coagulatio. In the process of circulatio, there is a resurrection of the Soul of Body. Images are an expedient mode of access to the knowledge of the soul, as it circulates rhythmically throughout every cell of the body.

The body becomes subtle and spirit gains body. One is able to maintain daily functions in the ordinary world without losing intimate contact with the archetypal dimension. In fact, this connectedness to daily life is essential to balance soul-travel in the archetypal realms. Maintain ordinary pursuits except during the allotted meditation period.

This indirect penetration to the core-of-being produces fulfillment. One may use conscious, purposeful action to intentionally produce experience of unconscious non-action which is purposeless. This is a natural preparation for death, the experience of awareness without the constraints of time/space.

The dynamic activity associated with ego-conscious (the desire to know, to penetrate and illumine) culminates in a cessation of effort. The rational process of controlling imagination defers to another power. This experience of silence and tranquility is known as Shekinah, or Sophia, Divine Wisdom. This means there is an emptying of the personal attachments of the ego. Man then experiences a timeless incarnation of the universal aspect of being.

The alchemical process described through this circular thinking is imaginatio. This indicates an abstraction from concentration and active fantasy. Its negentropic effects are a product of the Self. "Free-energy" enters the field of time when it leaves the archetypal world. In sublimatio-coagulatio, something new is created, and negentropic potential becomes available. This is commonly described to have a cleansing, or healing effect.

Through sublimation, the spirit hidden in matter becomes visible. "Primitive thinking" or anima consciousness (a diffuse awareness of potentials), is more suited to maintaining opposites in harmony while this ordering process continues along mythical patterns. It might be thought of as an archetypal ordering process, a "Way." When disorder is not ordered by archetypal processes, it falls to the ego.

A middle path between "primitive thinking" and directed, goal-oriented (ego) thought points to the type of sublimation which Jung speaks of in Aion. The ego system has a linear form of segmented, irreversible time implanted as a result of the directed thinking and historical development of the self. A relationship between the ego and the self is possible through the transcendent function. This is not built up with directed thinking, but with circular thinking, the negentropic source: imagination.

Middle Pillar Exercise provides a fail-safe, balanced form of participation in the realm of imagination, which is central to psychology, alchemy, magick, and physics. If, for some reason, you dislike using Hebrew God-names, correspond the qualities of these spheres with god-names from another Pantheon. It is best, however, to pick a pantheon and stick with it, for consistency.

BALANCING RITUAL: The Middle Pillar Exercise (for alignment with the higher Self)

Visualize a brilliant ball of white light above your head. The ball is to be about 1 1/2 to 2 ft. in diameter, just above the head. As you visualize, chant "EH-HE-YEH" three times, quite slowly. If you do it correctly, you resonate within your own body, causing physiological and psychological changes.

Next, imagine a rod of light descending through your head to your throat. It changes colors there and becomes pale lavender. The ball of light is visualized as the same size, only the color changes. Chant "YE-HOH-VOH E-LOH-HEEM" three times.

The ball then travels down to the center of the chest. The color changes to gold. Chant "YE-HOH-VOH E-LOAH-VA-DA-ATH", three times, slowly.

Once a concurrent visualization of the centers is obtained, and the sequence of chants finished, the ball travels back up through the body to the head. From the head a stream of energy goes down the left arm, left leg, the entire left side of the body, coming back to the head via the right side of the body. This energy then travels down the front of your body, coming back to the head via the right side of the body. This energy then travels down the front of your body, through the feet, and comes back up to the head via the spine. At that point, it becomes a fountain, spewing forth multicolored light, after spiraling up from the feet a third time.

When the energy is moving downward, you should exhale; when it is moving back towards the head, moving upward, you should inhale. When the ball is at your feet, in the beginning of the exercise, it may be expanded to include the entire sphere of the earth, as the god-form is literally The Lord of the Earth.

The visualized colors, and vibratory nature of the chanted god-names, turn on the endocrine system. The harmonization of right brain and left brain functions is symbolized in the harmonious blending of the circulation.

Frequent (once daily, minimum) practice of the middle pillar, doing the visualizations and doing the chants, will create an energy reservoir which balances the personality, promotes growth, initiates repair or healing, and builds a reserve for times of stress. It forms the basis of a firm foundation for further experiments in self-transformation.

Middle Pillar Exercise provides a fail-safe, balanced form of participation in the realm of imagination, or the psyche. A practice of this type, whether a psychological exercise or a magical rite is central to psychology, alchemy, magick, and physics. It forges a conscious link with our Source, and a road or means of communication for consciousness to travel along--it is a Way. Through it we come to know and understand our inner guiding principle and work toward realizing our Divinity. Tiphareth represents our inner guiding principle, but Kether is our sainthood, or Mastership. The Middle Pillar links up the various up the various aspects of our Being from Body-consciousness, to Ego-consciousness, to Self-Realization, mystical experience, and Perfection. The gulf between

our animalistic nature and our incarnation of Divinity in the Master-soul is symbolically expressed by the vertical column of Middle Pillar.

THE MIDDLE PILLAR EXERCISE may be corresponded with Tiphareth, since it seeks to align us with the higher Self. The establishment of a conscious dialogue between the ego and the Self is the goal of both Jungian Psychology and High Magick. We can consciously work toward this goal. Its psychological aspect deals with establishing an "ego-Self axis" or line of communication. Likewise, in Magick the same vertical connection between the mundane and transcendent is sought. This seeking is active and a procedure has been established to realize the goal. The procedure is a visualization exercise wherein we build the Tree of Life within our physical, astral, causal, and divine Selves.

Middle Pillar Exercise concerns spheres known as #1 Kether; Daath; #6 Tiphareth; #9 Yesod; and #10 Malkuth.(see diagram, next page.) The ancient philosophers who developed this system created a symbolic means of depicting how to gain control over your emotions enough to remain poised in detachment from the dual pull of the opposites. This develops within you a new faculty for discrimination and spiritual discernment. The mind moves from the superficial to the depths wherein lie creativity and meaning. "The Secret of Wisdom can be discerned only from the place of balanced power, "--that is between the two outer pillars, along the Middle Pillar where all transformations of consciousness occur! This is freedom from emotional compulsion, and yields equanimity.

This central point between the two symbolic pillars of the opposites, the place of balanced power from which the working is correctly viewed, is the implication of DAATH, the shadowy Sphere. Doing Middle Pillar, you magically create the sphere DAATH as an imaginal gateway to mystical experience--another dimension of experience. It is a new factor of adaptation or equilibrium, not a given within the basic scheme. It is the result of actively seeking, then experiencing, the transpersonal Divine through grace. It is this new factor of adjustment which is known variously as the Golden Flower, Rosy Cross, Philosopher's Stone, Diamond Body, etc. and is linked with Tiphareth as the seat of conscious awareness of the higher Self.

To the central spheres and shadowy Daath are attributed five Divine Names of God. They are the Names of God on each of the five planes expressing the vibratory rates of various grades or degrees of consciousness. No religious or metaphysical theory attaches to the employment of these names--they come from the Judeo-Christian system. You can be any religion and employ them without conflict. They are keys which open doors to different parts of our being, the existence of which hitherto we have been kept in ignorance. The words should be committed to memory:

1. KETHER (brilliant ball of white Light above head): AHIH (pronounced Eh-hay-yeh)

DAATH (ball of lavender-blue light at the throat) YHVH ALHIM (pronounced Ye-hoh-voh E-Loh-heem)

6. TIPHARETH (ball of brilliant golden light at heart) YHVH ALOAH ve-DAAS (Ye-hoh-voh El-oah ve-Da-as)

9. YESOD (violet sphere at genitals) SHADDAI AL CHAI (Shah-dai El Chai)

10. MALKUTH (olive green or black sphere under the feet) ADNI HARTZ (Ah-doh-nai ha-Ah-retz)

Kether refers to our latent God-Realization of sainthood; Daath is a symbolic link, self-induced and self-devised, between the Divine Genius and the ego. Tiphareth is Self-Realization; Yesod is ordinary emotional consciousness; Malkuth, body awareness. they symbolize your heights and depths. Middle Pillar brings in a charge of spiritual force, which is realized in consciousness. It brings Godhead into incarnation.

THE MIDDLE PILLAR

Middle Pillar consists of several phases: First the preliminary establishment of rhythmic breathing. Second, the formulation of the five centers through vibrating the God Names. And third, circulation of the Divine force throughout the psychic system. After months of practice you can extend the scope of your effort by adding the spheres of the two side columns as well. Remember, while vibrating the Divine Name of each sphere to contemplate in full consciousness on the implications of the sphere, i.e. its spiritual qualities and its relation to your own divine consciousness. Also, DAATH, as the link between your ego and Sainthood is very important. At Tiphareth, we realize the Self and can take up an I-Thou dialogue with it. Yet, we don't merge with the Self, or God, or become perfected until Kether, when the final traces of duality are annihilated--therefore the ego is annihilated or transcended. You become a timeless incarnation of the universal aspect of Being.

METHOD: Stand upright, hands to side, eyes closed, breathing rhythmically and deeply. Wait until the mind is calm, quiet, and still. Transfer your attention to the region immediately above the crown of your head, and visualize a great sphere of brilliant white radiant Light. When the visualization is obtained, regard it with a sense of devotion since it is the vital core of your Being, the living spark of Divinity. It is pure Light and power. Vibrate three or four times EHEIEH (Eh-hay-yeh), which means "I AM" or "I WILL BE." Steadfast in the contemplation of this Divine Source of power and enlightenment, endeavor to feel an all-penetrant beam of brilliance which is travelling downward toward your throat or nape of neck. Light becomes a lavender-blue sphere as you vibrate Ye-hoh-voh Eh-loh-heem, repeatedly. A quite indescribable sense of poise and mental quiescence should be experienced.

The brilliant beam then descends to the heart or region of solar plexus, and from there a warmth and a quite different sense of powerful love will gently radiate from within like an interior sun. Vibrate the Name, Ye-hoh-voh El-oah ve-Da-ath, several times. It is felt within the interior of the body, at its very heart. As you pass from contemplation of the heart to the generative organs, they will become stimulated or "turned on." Visualize the bright violet sphere and vibrate Shah-dai El-Chai. After arousing this center, the beam of Light passes downwards to the feet; this negative pole of Middle Pillar automatically appeared when Kether was formulated, but now we concentrate here on the olive drab or jet black sphere, and vibrate Ah-doh-nai ha-Ah-retz. We have brought down light into the personality, even the body.

Now circulation of the Light becomes necessary. Having been awakened from latency into some degree of activity, it is necessary that the power the centers generate should be circulated throughout the invisible or psychic system, or nervous disorders and psychic disturbance could result. Circulation distributes the power and relieves the pressure of over-stimulation. With everyone of the five centers active and throwing power into the mind and body, and clear awareness of middle pillar, another technique becomes necessary. **RETURN TO CONTEMPLATION OF KETHER.** Imagining this center still radiating, will it to circulate through your system. It descends from the head towards the left shoulder. Passing through the entire length of the left side of the body, the magnetic current strikes the soul of the left foot. Then it passes over the right sole, upwards through the leg and thigh and body to the right shoulder, eventually returning to Kether.

Second, This time imagine the current of spiritual power descending from Kether in a forward direction, downward in front of the face, neck, chest, thighs and feet. It turns backward along the soles, calves, ascends the spinal column, and neck until it reaches Kether. Repeat both steps several times, breathing rhythmically. To "wrap up" the circulation phase of the exercise, we imagine spiralling Light surrounds our body. Contemplate on Kether and imagine the upright column of brilliance, corresponding to Middle Pillar; Pass now to the visualization of Malkuth emanating its inherent power of stability and equilibrium and fertility. Spiral Light up from the soul of your feet, as if wrapping yourself like a mummy. The spirals of Light gradually ascend the body, while you feel a distinct sensation of a whirling of spiritual powers rising from feet to thighs, up the trunk, swathing you in pure white Light, until, the current rests in Kether, where it shoots out the crown of the head in a fountain effect.

This prepares you by stilling the mind for meditation. Close with Banishing and Cross.

* * *

Middle Pillar Exercise and Synesthesia: Cross-Modal Translations of Sensory Dimensions

by Philo Stone (Miller & Miller), c 1981

I. Statement of Purpose:

- (a). Middle Pillar is an exercise in visualization. Visualization is important as a means of communication with the subconscious, to influence the process of self-transformation.**
- (b). Reproduced scientific evidence, (Marks, 1975), now indicates that there is a mutual-reinforcement between certain specific vibrated vowel-sounds and visualization experiences. This constitutes a visual-auditory synesthesia or feedback system. Vowels evoke powerful visual "sensations."**
- (c). The purpose of this paper is to show how Middle Pillar Exercise corresponds with several forms of self-induced synesthesia, or sensory blending. A reason is shown for retraining our eyes and ears out of habitual modes of sensory screening.**

With this tool, we might free ourselves from certain conceptual restraints and upgrade our practice of Middle Pillar Exercise. This is a technique which heals our culturally pre-programmed Cartesian duality, the mind-body split.

II. Historical Background:

Synesthesia is defined as sensory blending or melding; any combination of the five senses may be involved simultaneously. The most common combinations are between visual-images and sound (colored-hearing), and visual-images produced by taste. The sense of smell, in perfumes, for example, evokes memory and its attendant images. Alpha-numeric color synesthesia may have led to specific color attributions to the Hebrew letters (even though these attributions vary widely).

In synesthesia, ordinary stimuli elicit extraordinary conscious experiences. For example, standard black digits may elicit highly specific color experiences and specific tastes may elicit unusual tactile sensations. Imagine that every time you hear a particular sound or view an ordinary black digit, you experience an accompanying perception of a highly specific color. The stimulus and elicited experience can occur in the same modality--printed digits or letters can trigger colors called photisms. Or, conversely, cross modal translation leads to taste eliciting tactile experience, or sounds eliciting colors.

Experiments show that for any given synesthete there is high consistency of the pairing between eliciting stimuli and the synesthetic experiences over time. We can take advantage of this tendency in our magickal practice, and train ourselves toward these automatic sensory associations. For example, we can learn to associate, not only the color, but the musical notes of each of the alpha-numeric letter/paths of the Tree of Life. Synesthetes often claim that their synesthetic experiences occur independent of their intentions, suggesting the processes underlying the phenomenon may be automatic.

Findings show (Smilek, Dixon, 2002) that non-synesthetics can be trained to associate color labels with uncolored forms, so we can presume other associations can likewise be trained. A cortical pathway in the ventral aspect of the Temporal Lobe is suspected in activation of synesthesia. But there is no "seat of synesthesia" in the brain; the visual cortex is also entrained with photisms. Often inner experience is projected externally onto the stimulus. The binding of form and synesthetic color can be extended throughout the qabalistic correspondence system.

Research shows that synesthetic color may be activated outside of awareness, or conscious intent. It is precisely this type of coupling we are trying to achieve. There are also conceptually driven synesthetic experiences, without externally presented stimuli. This implies even in purely astral magical work, the automaticness we ingrain through the correspondences should meld classical qabalistic associations together to create a gestalt or the atmosphere of our ritual. In early training, an externally introduced stimuli may be necessary -- this is the purpose of the magickal armamentum of weaponry and appurtenances. They help elicit the associated synesthetic experiences.

There is a common core of similarities in synesthetic experiences. Visual colors are associated with speech sounds.

There is evidence that everyone is capable of experiencing synesthesia. Synesthesia may occur spontaneously, or as a learned response. Middle Pillar Exercise, with its simultaneous 'vibration of God-names' and visualizations, may be viewed as an 'access code.' This 'access code' is a helpful tool which opens creative relationships with different parts of the subconscious and the physical body (parasympathetic system).

When we are "caught up" in the meditative process, we experience cognitive meaning in sensory form. Psi information (24) is mediated via mental imagery. The image and its "meaning" are identical. Therefore, psi communications are enhanced under conditions which facilitate imagery. Both Magickal visualizations and creative imagination promote this viewpoint.

According to Archetypal Psychology, synesthesia is how imagination imagines. What this experience does is transform the singleness of any one sense out of its literalness. It makes a metaphor of sense perception itself, for example, "I can see music."

One of synesthesia's special roles is to summarize important cognitive distinctions in a convenient and economical way. As a shorthand, it is compact but relatively fixed and, therefore, limited. Its validity as a useful tool appears to be limited to the context of magickal practice. Without a system for creating a meaningful experience, such as pathworking, there is very little spiritual value in the phenomenon except the aesthetic. Researchers have considered synesthesia less significant in adulthood than childhood. This need not be true with proper application, such as the Middle Pillar Exercise.

III. Traditional Technique:

Proper control of the breath has been emphasized in both western and eastern meditation techniques. This, of course, connects with the sense of smell, and posits us in the realm of Psyche (the breath-soul of the head whose passages are the nostrils). Psyche's realm is "the place between", the realm of soul-making. It is that place between the physical body and the abstractions of the spirit. Note the semantic similarity between 'psi' and 'Psyche.' In QBL, this internal space is called Tiphareth, realm of imagination.

Middle Pillar is designed so that the actual formation of the body/mind system may be changed and renewed. It is not concerned with the exclusive cultivation of either the body or consciousness.

Regardie states: "Always in a salutary way is the path between the two extremes indicated."

The vibration of god-names, as well as stimulating the vision in specific directions, stimulates the endocrine system and glands in the mid-brain by a resonance effect. These effects are not necessarily to be viewed as causal (the result of previous action), but are perceived simultaneously; their reciprocal relationship is inherent.

IV. New Model:

We may presume to use current scientific research to upgrade our practice of Middle Pillar. Through the inherent mutual reinforcement phenomena of visual-auditory systems, when we Middle Pillar, we induce synesthesia at will.

The next obvious question is: why would we want to induce synesthesia? When one is experiencing the creative imagination, that engagement with an image, all modes of perception meld into indivisible unity. This form of systematic cross modal matching is closely allied with the concept of a system of correspondences.

Significance is not found in analysis, but in the image itself. (25) The image consists of such apparently diverse elements as behavior, fantasy, thoughts, dreams, illness, etc. None of these are 'because of' the image, they are the image itself as a 'just-so' story. To form a "ground" for our spirituality in the imaginal realm (internal topography) we must re-imagine the Creation.

Re-imagining the Creation is precisely the function of Middle Pillar; it is a dramatization of the Creation Myth. In his book, *The Sacred and the Profane*, Eliade states, "The creation of the world becomes the archetype of every human gesture, whatever its plane of reference may be...communication with heaven is expressed by variants of the cosmic pillar, which stands at the center of the world."

This pillar is a useful symbol for what we shall term the ego-Self axis. This axis is a relationship built up through various psychological exercises. It forms the link between ego-consciousness and one's Holy Guardian Angel.

The H.G.A.. represents both conscious and subconscious minds working together in harmony. In psychology this is termed the Transcendent Function. It establishes one's relationship to the cosmos, namely a conscious relationship to outer/inner space. As in synesthesia, we are returned to the magickal, child-like mode where cognitive meaning is in sensory form. In this experience, careful aesthetic elaboration of a psychic event is its meaning.

One can learn to experience this mode of consciousness in a ritual situation. Once (re-)learned, it can extend into every sensory experience of daily life, either literal or metaphorical.

The sense of inherent meaningful importance in day-to-day events and trivia is a necessary concern of soul. Through it 'life makes sense', and 'sense makes life'. The alchemists always stressed identity of the physical/spiritual connection.

The roots for the word 'sense' mean something which is directly tangible (physical and solid or concrete). It also now implies something meaningful and significant. Imagination takes place wherever we are. When you split sensory data from meaning, you not only split sensation from intuition, you also split spirit, soul, and body.

The conjunction of concrete sensation, psychic image, and spiritual meaning is aisthesis, which denotes breathing in (smelling) and perceiving. In ritual, all the senses are directly involved via the correspondence system. This creates a mood or atmosphere which the

participant "breathes in." There is an experience of unity of the senses via synesthetic metaphor.

V. Techniques:

The guidelines for inducing visual-auditory synesthesia are fairly straightforward:

1. Vowels are an especially powerful source for production of secondary visual sensations.
2. There is a correlation between auditory pitch and visual brightness; brightness of vowels vary and photisms (visual images of light) produced vary in brightness as the sounds that produce them vary in their frequency.
3. Visual pitch predicts the whiteness or blackness of associated photisms.
4. Visual size increases as auditory pitch decreases; the louder the vowel-sound, the larger the image. However, induced size is not related solely to pitch.

Vowel-Sounds and Color Correspondences

Pronunciation	Vowel	Color	Properties	Frequency
"mama"	a	red & yellow	bright	
"late, let"	e	white	"acute"	high pitch
"bit, beet"	i	white	"acute"	lowest pitch
"home"	o	red & black	"grave"	darkest lowest
"boot"	u	dark colors, deep blue	"darkest"	darkest lowest
	ou	dark		

Order of increasing frequency (itches): u, o, a, e, i.

Order if increasing vowel brightness: u, ou, o, a, e, i.

Example: The God-name, IAO, begins with a bright vowel and concludes with a dark vowel. The center vowel may be considered the melding point or median.

VI. Conclusion:

The above information indicates that one might be able to learn to pitch the magickal voice and loudness to induce a desired visual effect. This eliminates any sense of detachment from one's experience or activity. This is an experience of the immortal body, or philosopher's stone.

FOOTNOTES

- (1) Miller, R.A., Webb, B., Dickson, D.: "A Holographic Concept of Reality," **PSYCHOENERGETIC SYSTEMS**, S. Krippner, ed., pp231-237, Gordon and Breach Science Publisher, Inc., N.Y., c1979.
- (2) Professor David Finkelstein, in a lecture at Yeshiva University.
- (3) **THE DIAMOND BODY: A Modern Alchemical View of the Philosopher's Stone**, Philo Stone, c1981 (online).
- (4) Such as vortices or "twistor space".
- (5) Albert Kreinheder, "The Call to Individuation," **Psychological Perspectives**
- (6) Edward F. Edinger, **Ego and Archetype**, Penguin Books, Maryland, 1972, p104.
- (7) *Ibid*, p64.
- (8) June Singer, **Boundaries of the Soul**, Doubleday, N.Y., 1972, p172.
- (9) June Singer, **Boundaries of the Soul**, Doubleday, N.Y., 1972, p210.
- (10) Edward Edinger, **Ego and Archetype**, Penguin, Maryland, 1972, p.235.
- (11) James Hillman, **Loose Ends**, Spring Pub., Dallas, 1975, p184-5.
- (12) Mitchell Walker, "The Double: An Archetypal Configuration", Spring 1976, Spring Pub., Dallas, 1976, p169.
- (13) Rafael Lopez-Pedraza, "The Tale of Dryops and the Birth of Pan: An Archetypal and Psychotherapeutic Approach to Eros Between Men", Spring 1976, Spring Pub., Dallas, 1976, p179.
- (14) Otto Rank, **Beyond Psychology**, Dover, New York, 1941, "The Double as Immortal Self" p62-101.
- (15) Jung and Kerenyi, **Essays on a Science of Mythology**.
- (16) Marie Louise Von Franz, **Alchemical Active Imagination**, Spring Pub., Dallas, 1979.
- (17) Robert Grinnell, "Alchemy and Analytical Psychology", **Methods of Treatment in Analytical Psychology**, Spring Pub., Dallas, 1980.
- (18) Lyn Cowan, "On Masochism," Spring 1979, Spring Pub., Dallas, 1979, p47.

(19) Ibid. p50.

(20) Israel Regardie, *The Middle Pillar*, Llewellyn, Minn., p79-107.

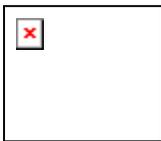
(21) Denning and Phillips, *The Magickal Philosophy*, Llewellyn, Minn. p257-262.

(22) C.G. Jung, "Flying Saucers: A Modern Myth," *Civilization in Transition*, C.W., Vol. X, P. 774.

(23) Edward Edinger, *Ego and Archetype*, Baltimore, Penguin Books, 1973.

(24) Psi information is that matrix of experience which depends from the intensity of the conscious experience and its duration.

(25) "...into the pit called Because, and then he shall perish with the dogs of Reason." *Liber Al vel Legis*, 2:27, Crowley. This might be read as an exhortation to develop quantum thought-models, rather than remain in the 19th Century, causal or mechanistic mode.



The Universe, Path XXXII

"He has ventured far beyond the flaming ramparts of the world and in mind and spirit traversed the boundless universe."

--Lucretius (99-55 B.C.), *The Nature of the Universe*

792.10 Universe: Universe is synergetic. Universe is synergetically consequent to all the generalized principles, known or unknown. Universe is not a structure. Universe embraces all structures and more. While a plurality of generalizations governs all structures, realized structuring is always special case. Structures are synergetic consequences of the intimate interaction of a complex of special case factors.

Superficially, the overall limits of the manifold omniintertransformability of structures are unitarily conceptual.

792.20 Scenario Universe: Scenario Universe embraces all the nonsimultaneous, only-local-in-time-and-place structurings, destructurings, unstructurings, and restructurings. All the somethingnesses are structures. All the nothingness is unstructure. All the somethingnesses are special case. All the nothingness is generalized.

---Buckminster Fuller, *Synergetics*

The Universe is the Unity which embraces all. To say "the Universe," with a capital U, implies that we know the universe in its essence the world process. But the Universe, in itself, remains as mysterious and unknown as ever. What we do know are masks of the Universe or models.

These universal models may be shamanic, religious, artistic, philosophical or scientific--but they are still world pictures, represented from a number of possible interpretations. So when we speak of models we can use the lower case version, universe. When we refer to its true nature, which not even our wildest dreams can imagine, it is the Universe. When referred to as a transition on the Path of Return, it is The Universe.

The modern use of the term cosmology is as the study of universes, using sciences such as physics and astronomy. It is the science of the Universe and our current understanding of its past, present, and future. But in ancient times, cosmology was the matrix of our place within the Whole, the Divine Order. Mankind developed countless culturally-biased "world pictures" to provide an explanation of nature and our place in it. They were formulated in religious and philosophical language, and were therefore theological or metaphysical in nature.

The art of creating such world pictures probably has its roots in protohistorical shamanism. Shamans were healers, seers, and visionaries who had mastered death. This practice is more than 15,000 years old, and continues in some primal cultures. They were technicians of the sacred and masters of ecstasy. One of their primary ecstatic rituals was the practice of "shamanic flight," to unearthly realms. In these flights, the spirit was entranced. The shaman defined the culture's relationship to the cosmos.

These flights were "journeys to Other Worlds," out-of-body experiences produced by induction of trance states which gave participants the sensations of flying up from the earth and into the cosmos. This rapture was induced by the soul leaving the body, transcending into the realm of spirits and gods. Since they were familiar with both cosmic and physical geography, these were more than flights of fancy, for they contained a fundamental element of intuition and valid information about the nature of reality.

The direction that the psyche takes is oriented toward the cosmos, the ground of being that is the universe, and the life field is therefore amplified to include all dimensions of "Unconcealed Being." The passageway to greater life is opened and traversable.

The central symbol of shamanism is the Sacred Tree, or World Tree, the axis of the world, the center of life. The mortal and finite dimension was transcended by climbing the sacred tree, considered the path to rebirth through directing the spirit heavenward. The vehicle of ascension to the sky realm of the sun, to the territory of illumination, is the drum, whose pulse can induce initiatory trance states through resonance effects.

The shaman's spirit ascends beyond the plane of death, soaring to a timeless place. The soul is transformed into a magical bird and the soul ascends into the sky realm of the spiritual sun, the light of awakened consciousness unfettered by gravity, the boundaries of space, materiality, and time. Some shamans find themselves "being nurtured in nests high in the World Tree." The higher the nest, the more powerful the shaman will be, the more he will know, the further he will see.

Thus, we came to think of reality not in terms of things, but as a ladder of process, a great movement and exchange of energies. A teaching then is a copy of this cosmic process on the scale of human time on earth. Initiation into such a teaching in our own lives means that one's own life becomes yet another copy of this process--a microcosm.

Spiritual teaching is indirect in that it neither compels nor seduces us into belief. Rather, it provides certain kinds of experiences, which can only be assimilated by the whole of ourselves, by exposing ourselves to the full range of events which take place in a cosmos. Thus, we are rooted in holism, in the macrocosm. The Universe, itself, is a great teaching.

At the dawn of culture, the world was conceived in terms of the activity of vibrant spirits. In the Age of Mythology, the cosmos was governed by gods and goddesses who dwelt in another dimension. The ancient Greeks were the first to refer to the world as a cosmos, an ordered system in contrast to a disordered, random chaos. They posed the age-old question "What is the origin and structure of the universe."

This insight that the world was orderly was a quantum leap in the history of thought and philosophy, and essential to the development of modern physical science. It took insight to realize that nature is orderly, even though we take it for granted. All this is a far cry from the literal scientific picture, which is a sort of "cosmic box."

All theories which describe world process and purpose, that argue from the existence of the world, or certain facts about the world, to Divinity as the best explanation for these facts are called cosmological arguments.

They begin with the basic premise that there are certain facts about the world we must explain. The arguments (whether they are causal, design or moral) are inductive since they begin with alleged facts about the world known through sense experience. This is the realm of the philosophy of religion. The spheres which encompass the earth in the cosmological schemes of antiquity enmesh us in a network of purposes, a ladder of hierarchies and intentions. To the ancient mind, the very meaning of this organization and order was that the cosmos is an organism, in the sense of a hierarchy of purposeful engines. The secret of the universe is that it's alive! It is embryogenesis of the Cosmic Egg. This is certainly in the spirit of the qabalistic model.

"In the Hermetic writings the hierarchical structure of the cosmos resembles that of an organism...(governed by a supreme consciousness or intelligence). At each level of being there are "gods" or "angels" or, to use less uncomfortable language, "purposeful energies." From this point of view, the ancient spatial descriptions of the cosmos are meant to be understood symbolically.

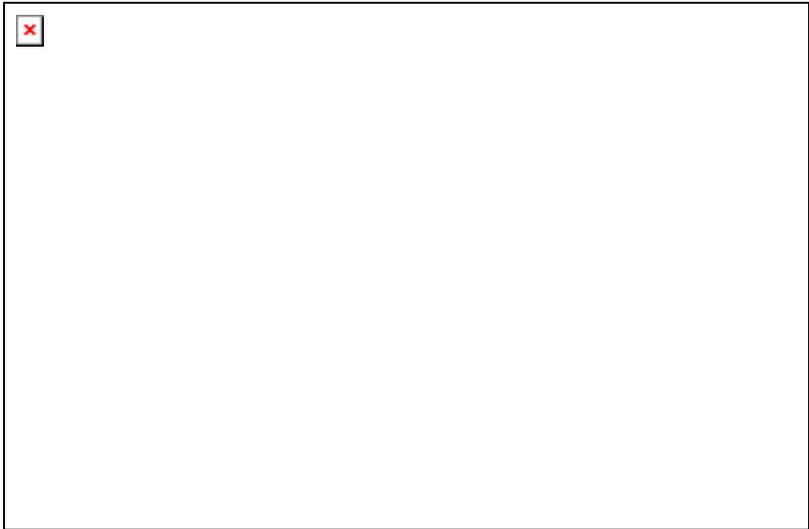
"Likewise, the word "sphere," used in describing forces and purposes at different levels, is never meant to be taken literally. The very idea of the circularity of movement in "the heavens" can be understood to mean not only the encompassing nature of these progressively higher influences, but their eternal nature. The circle is, among other things, a symbol of that which "eternally recurs," that which is not subject to time and change as we know them.

"Obviously, there is a great difference between contemplating a universe which exceeds me in size alone or in intricacy alone, and one which exceeds me in depth of purpose and intelligence. A universe of merely unimaginable size excludes man and crushes him. But a universe that is a manifestation of great consciousness and order places man, and therefore calls to him.

So much is obvious, for a conscious universe is the only reality that can include human consciousness. And only when I am completely included by something does the need arise for me to understand my relationship to it in all the aspects of my inner and outer life. Only a conscious universe is relevant to the whole of human life."
(Needleman, 1975)

Ancient cosmologies were symbolically geocentric, even though many cultures calculated that the earth was round and knew the heliocentric nature of planetary motion. Those philosophies were spiritually heliocentric, but this knowledge was a deep initiation, a sacred idea about our experiential place in a hierarchically structured conscious universe. They also knew that the senses were subject to illusion. It is geocentrism, without the idea of microcosmic man, which modern science has rejected. But many fail to realize that a purely external geocentrism never existed in the ancient world.

"It is only we, who have lost the idea of the microcosm, who see it that way; and, seen that way, geocentrism surely becomes an idiocy, or--at best--a convenience for calculation. But taken with the idea of a microcosm, geocentrism reminds man that objective reality contains many kinds of influences that can act upon us, that there is a scale of being to which man is born would he but search for it diligently, as he pursues the satisfactions of external life. It is we who imagine that geocentrism was merely a balm for the ego and a primitive astronomical theory. Because we, have lost the idea of microcosmic man, separate scientific from existential ideas, we imagine that this separation is what ancient man was grappling for when on the contrary it was precisely what he was struggling against." (Needleman, 1975).



"Worlds Without End"

PATH 32

In *The Roots of Consciousness*, Jeffrey Mishlove describes three basic illusions as being Space, Time, and the Personal Consciousness. In Lawrence Le Shan's *The Medium, the Mystic, and the Physicist*, four ways of perceiving reality in the clairvoyant state as it differs from ordinary consciousness are described. Sri Auribindo says, *"Trance is a way of escape. The body is made quiet. The physical mind is in a state of torpor. The inner Consciousness is left free to go with its experiences."* His comments about trance are far from complete. The disadvantage is that trance may become indispensable and the problem of the waking consciousness is not solved, except perhaps in hypnotherapy and shamanic healing. Le Shan's four ways of perceiving reality are more complete.

- 1). In the clairvoyant state, the unity of things is generally felt rather than the individual aspect. There is a holistic overview of what is happening, rather than an analytical view.
- 2). Time is experienced as non-linear, (as if the past, present, and future were one), rather than as a durational, linear sequence of events.
- 3). Value judgements, concerning the goodness or badness of any event are generally not considered in the clairvoyant state. Things are seen only as they are--just so.
- 4). Information is not gained by seeing, but by knowing, as one's unity with all things. This clear seeing perception is expressed through the metaphor of visual experience. It is a deliteralization of sensory awareness which allows this inner sight to occur.

Le Shan maintains that whether we travel without or journey within, whether we go as a physicist or a mystic, the same unity of experience is seen. Throughout history the single pattern persists with all metaphysical teachings: there is something beyond space, time, and the good/evil polarities.

"Right thought is to meditate on His names and attributes and wrong thinking is an attempt to know His essence. This idea is further illustrated by gazing on the sun, which is beyond the power of sight; but one may form an idea of it, in seeing its reflection in water, which diminishes the intensity of its light. In the same manner, the

universe is a mirror of Absolute Being in which unity appears in diversity, as by counting one becomes many. One who attempts to know Him through the universe, the same becomes the book of the most high truth, in which consonants are substances and vowels are accidents. The first or opening lines (emanation) is the universal reason; the second is the Universal Soul; the third, the highest heaven; the fourth 'the throne'; then the seven heavenly spheres; next the three kingdoms of nature; and last is man. He is the soul or kernel of the world." (Archer, The Sufi Mystery).

*"326.02 All that is physical is energetic. All that is metaphysical is synergetic. . . .
537.46 What is important about the individual and important about the Universe is that neither is exempt from any of the rules. Universe is the sum-total, and the individual is the special case. Universe is the aggregate of all the generalized principles. Each individual is one of the illions of ways the game of Universe could be played." (Fuller, 1976).*

The Isotropic Universe: Location and the Cosmic Center

Modern cosmology is skeptical that any location such as cosmic center exists. The location principle assumes it is unlikely that the Earth, Sun, and Galaxy are privileged places, simply because we are here. But symbolic reality still affirms for us that the center of our universe is wherever we create a sense of sacred space. This deduction of sacred psychology is not wrong, it simply is not literal, but metaphorical reality. The cosmological principle (deduced from the uniformity of the cosmic background radiation) asserts that all places in the universe are alike. In a state of isotropy things are the same in all directions. This may not seem to be true as we look out from the Earth to the heavens, but it has been proven on the most macroscopic of levels to hold true. From observations we have established that the universe is isotropic around us.

Beyond about 300 million light years, the universe begins to look isotropic, as Lucretius predicted in 55 B.C. If the universe is the same in all places, it has no center. As we continue projects to map the universe, we are finding out about the relative distribution of matter in the universe. The observed state is isotropy; the deduction is homogeneity.

Fuller modeled this isotropic state in the omnitriangulated Isotropic Vector Matrix. Every vertex of this synergetic system is an energy center. This matrix is metaphysical rather than physical so it is not an observable field. A field is a quantity defined at each point throughout some region of space and time, such as an electromagnetic field. A scalar field is virtual, since it has only magnitude at each point. A vector field has both magnitude and direction.

When we say that the figure (mankind) can not be studied independently of the ground, (Universe), this is the fundamental symbolic representation of that isotropic groundstate. The threshold of matter, the edge of science, the groundstate of mysticism. Understanding this pre-geometric nature of the metaphysical foundations of reality confirms that "We are That."

The most recent attempt to map the Universe (SciAmer, Ju1999, p38-45) show that galaxies tend to clump together into larger and larger groups. These immense intricate structures are the results of the forces of early inflation or expansion of the universe, and subsequent gravitational interaction. But clumpiness is paradoxical to the cosmological principle that the universe is isotropic and therefore homogeneous.

How do we reconcile the ultimate evenness of matter with the unevenness of our immediate observations?

Isotropy is only true in a subtle, statistical sense. What we observe are superclusters and abysmal voids, density fluctuations. Yet in cross-section of a many as 3 million galaxies, the sky looks roughly the same in all directions. We are discovering even the voids contain intergalactic "dark matter," and intergalactic space is populated by a full 1/3 of all stars, existing as singlets outside of galaxies.

Up to 100 million light years, galaxies are distributed as fractals. Fractal distribution cannot be isotropic nor homogeneous. But on scales of hundreds of millions of light years, the fractal nature yields to a noise process. Still broader observations show the return of clustering or bunching in walls and voids. But in harmonic analysis, the mathematical distribution of galaxies and random noise is identical.

"Harmonic analysis can reconcile the cosmological principle with the clustering of matter. If the universe is homogeneous and isotropic, observers sitting on planets in

separate galaxies should measure the same properties for the universe on its largest scales. Of course, they will see different galaxy distribution...But given enough surveys, or a survey of sufficient size, the two observers should measure the same statistical fluctuations."

Modern science has a different mode and means of harmonic analysis than the Pythagoreans, whose harmonies were those of the "music of the spheres." But it is still aesthetically pleasing.

"[Harmonic analysis] is based on analyzing the harmonic components of random distributions, and the sound is more like the gush of a waterfall than that of divine instruments. Although this modern endeavor may seem neither as pleasing nor as spiritual, as those of the past, the concept of an isotropic universe wedded with an understanding of random fields now allows us once again to hear the music of the spheres." (Landy, SciAmer, June 1999).

Astronomer, Roberto Mendez (Discover, Feb 99, p82-87) has discovered intergalactic stars and even planets in the dark voids of galaxy clusters. He conjectures that these vast numbers of intracluster stars come from the near misses of galactic interaction. Sprays of stars are shed as galaxies pass by one another. Some of these stars may actually be the ancestors of the galaxies near them, from a far earlier generation of stars. These dim stars could be primordial. The observable space around these isolated stars appears different from our illuminated canopy.

"It is only slightly more imaginative to suppose that some of those planets might be inhabited. What might the inhabitants see when they look up at night? Maybe a few sister planets, a few fuzzy galaxies, a star or two--but otherwise their sky would be utterly black. All the other stars would be too far away for the naked eye to see. To those intracluster creatures in Virgo, the universe would seem an empty place. They might even think it revolved entirely around them." (Kunzig, Feb 99).

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BOOK II



Path 32: *THE UNIVERSE, Saturn*

PATH 32: Table of Contents

PART I. ASSIAH, THE PHYSICAL PLANE

BOOK II: THE UNIVERSE, Path 32 and Extrasensory Perception

1. PHILOSOPHY

- a. Transitional Phase: The Tree of Life, Topological Modeling, and Information Theory**
- b. Ritual: The Spiritual Hierarchy and Assuming the Godform**
- c. Practical QBL: Pathworking; Inroads of the Imagination**

2. PSYCHOLOGY

- a. Psychological Model: Archetypes, Fundamental Components of Daily Living**
- b. Mythic Correspondence:**

- (1) Hera, the Mating Instinct**
- (2) Saturn/Kronos, the Puer/Senex Archetype**

3. ASTROLOGY & ALCHEMY

- a. The Age Factor in Astrology, and Transits**
- b. Saturn, Lord of Boundaries**
- c. The Nigredo in Alchemy**

4. ORIENTATION & EXERCISE

- a. Time Perception and Sensory Filtering**
- b. 32nd Pathworking: The Personal Experience of Time; Hypnosis and Time Experiments**
- c. Life Extension Practices (Aging, Rejuvenation, and Immortality)**

BOOK II: *THE UNIVERSE*, Path 32

INTRODUCTION

Path 32 bridges the Physical Plane to the Astral Plane. As it is ruled astrologically by the planet Saturn, it has to do with space/time and the propagation of recurrent patterns, (from archetypal manifestations to habits). As the connecting link between Malkuth and Yesod, Path 32 graphically depicts how space/time connects EM fields to matter.

Path 32 is the first path encountered when the aspirant is initiated into the Way of Return up the Tree of Life. It is a path of equilibrium, since it is found on the Middle Pillar. It represents both the beginning and perfection of the Great Work.

1. Physical Plane: This path, the Universe is the subject of all speculative cosmologies, scientific and metaphysical. In human terms, it manifests its Saturnian energy through Melancholy and anxiety with fantasies of regeneration and rejuvenation. Path 32 is the avenue of reincarnation on the descent of spirit into matter. The mind becomes introspective and turns away from the field of sensory

perception as a literal (and only) reality. The "well" symbolizes the subconscious, the fountain of Youth, or immortality. Alchemy was originally conceived as a life extension program, which renewed on both psychically and physically (Yesod and Malkuth). Perception.

2. Astral Plane: The strongest image for this path is a descent into the underworld. It is the beginning stage of mystical soul travel, during which one concentrates on development of the astral body. This facilitates the experiencing of reality through psychic senses, which are metaphorical perceptions through agencies of sight, taste, touch, smell, and hearing. These so-called ESP phenomenon do not require the introduction of a new sense, but only this new metaphorical mode of apprehending through those with which we are familiar. This plane of Path 32 also represents the beginnings of devotional mysticism. Also included is the concept of karma, and the mating instinct. The combination of these two leads to the concept of the soul-mate, who cannot be found until this plane is experienced. Clairvoyance.

3. Causal Plane: The stability conferred by Saturn through this path helps promote concentration, particularly in relationship to images. These images arise spontaneously in the Astral Plane, and percolate through to normal ego-consciousness through this Path, with varying amounts of distortion. Focused concentration eliminates fuzziness. Both magick and psychoanalysis provide the means for focusing and following images through their transformations into an equilibrated state in Tiphareth (#6). Insight.

4. Archetypal Plane: Space/time creates certain limitations or boundary conditions of both human physical and psychic existence. Acceptance of these conditions and the form it produces are necessary for realization. With persistence, it is possible to attain perfection through rejuvenation. There is harmony among the Chakras of the physical body (CNS and endocrines). This produces a cosmic consciousness and a yearning for further experiences of soul travel on the path to God-Realization. Einstein's Special Theory of Relativity is relevant.

LADDER OF LIGHTS

*Do you hear the music
in the soft silent moving breeze of Vibrants?
Can you see the shifting
energy or manipulate your essence?*

*Have you ever been caught
suspended in a dream's after-current
to awake with a shock
and find yourself silenced in darkness?*

*You are potent
to influence sensation
as you climb for ever more heights.*

*Achieve,
through necessary duration,
and rise upon the Ladder of Lights.*

*True, it's such a rush, all of a sudden
to find that same "ALL" by your Self.
Chained to your foregone confusion,
Persona clinging to consciousness' shelf.*

*You are latent
to influence Creation
as you die through your 10 pacts a day;
To find thine spirit's inner relation
the Ladder of Lights is a Way.*

*

XXI, THE UNIVERSE; Path 32 and Extrasensory Perception

Trance is a way of escape. The body is made quiet. The physical mind is in a state of torpor. The inner Consciousness is left free to go with its experiences.

-- Sri Aurobindo

The future is my present thought manifested.

--Student Comment, 1976

In *Roots of Consciousness*, Jeffrey Mishlove describes three basic illusions as being Space, Time, and the Personal Consciousness. In Lawrence Le Shan's *The Medium, The Mystic, and the Physicist*, four ways of perceiving reality in the clairvoyant state as it differs from ordinary consciousness are described. Sri Aurobindo's comment on the advantages and disadvantages of any trance state remains imperfect. The disadvantage is that trance becomes indispensable and the problem of the waking consciousness is not solved. Le Shan's four ways of perceiving reality are very important aspects to key onto.

The first is that when in a clairvoyant state (related to extrasensory perception), the unity of things is generally felt rather than the individual aspect. In other words, in a clairvoyant state there is a holistic overview of what is happening rather than an analytical view.

The second aspect is that Time is experienced as if the past, present, and future were one; rather than a durational, linear sequence of events.

The third aspect is that value judgments, concerning the goodness or evilness of any event, are generally not considered when in a clairvoyant state. Things are seen only as they are.

The fourth, and final aspect, is that information is gained not by seeing, but by knowing, as one's unity with all things. This clear seeing perception is expressed through the metaphor of visual experience. It is a deliteralization of sensory awareness which allows this inner sight to occur.

Le Shan maintains that whether one travels without or journeys within, whether one goes as a physicist or a mystic, the same unity of experience is seen. Throughout history the single pattern persists with all metaphysical teachings: there is something beyond space, time and the good/evil realities.

As an illustration to ponder, consider a rural railroad that runs through a series of deserted towns in a remote part of the United States. Within each town is a solitary hermit. Each hermit sees this train arriving and leaving, periodically, and watches goods pile up and disappear at the railroad station.

One hermit, in particular, associated the arrival or departure of goods with the train's coming and going. This hermit had never had any kind of contact with anyone or anything, except that in his particular universe he has a train arriving and leaving; and somehow goods of all sorts appear at the railroad station; these goods sometimes appear and disappear but are somehow associated with the train's arrival and departure.

Finally, after a period of time, he decides to explore the station. He finds the schedule of events (arrival and departure times), and he then establishes a rapport with his own universe; he is watching this train's predictable movements. He finds this to be a way he can communicate with the external world. He finds these packages contain food or instruments which he can use in his world to make himself more comfortable. Compared with the hermits in the other deserted towns, he has complete command of his world.

Then, the hermits in the other towns somehow learn of his good fortune. At that point, they make a value judgment as to whether this man is evil, or a really good man. Because he seems to have a rapport with his environment, he has learned to make himself more comfortable.

In this analogy, the conscious mind is the hermit. The railroad station represents the preconscious: everything that is "not me." Now, the universe is divided into two sections: 1. Everything that is the conscious mind, the "me," the hermit. 2. The preconscious (or Collective Unconscious), or everything that is "not me", but is in some way directly related to the ego-consciousness. This is the great treasure trove of the subconscious. The power of consciousness impresses our Will on the preconscious and fertilizes it so that it will produce the situation which is willed.

In other words, each individual is the hermit. Each of us is in the wilderness which is called reality, or the physical plane, closed off from the rest of creation. Eventually, certain patterns in this "reality" are noticed. Ultimately, things can, and will be, perceived through the subdivisions "me" and "not me." Eventually, it is found that this separation is one of the three basic illusions of Reality, Personal Consciousness. As the archetypal dimensions of experience open, one gains access to realms which transcend time/space and personality. The hermit is ready to board the train in an exploration whose goal is unknown and indescribable, from his perspective.

For example, using time as a subjective illustration of an illusion, let us consider extrasensory perception in its relationship to time. This is just one example to provide a framework to take this concept into a proper context.

In parapsychology there are two categories labeled as either extrasensory perception, or psychokinetic phenomena. Psychokinetic phenomena is the term applied to such anomalous occurrences as:

1. Levitation
2. Teleportation
3. Materialization
4. Aportation

This orientation will not deal with these phenomenon, but is devoted to extrasensory perception. In research, ESP is divided into five basic categories:

1. Clairvoyance

2. Telepathy

3. Precognition/Retrocognition

4. Radiaesthesia

5. Astral Projection

In essence, the five categories listed above are various modes of perceiving information. It depends on one's own particular coordinate system of time how any physical occurrence is perceived.

N.A.S.A.'s Apollo 14 Mission studies included an experiment in extrasensory perception. Edgar Mitchell proposed the test to N.A.S.A. The resulting data is quite interesting and revolutionized scientific opinion concerning this type of phenomena.

Basically, the experiments went as follows: Edgar Mitchell was in space, specifically on the moon. The famous medium, Olaf Johnson, was on earth. Though equipped with radio communications via satellite, Edgar Mitchell and Olaf Johnson has a large expanse of space between them. With such a large distance to work with, the time variable was more easily measured. Light travels at a certain speed. Sound also travels at a certain speed; depending upon the substances it is going through, time sequences vary. These can be mathematically correlated. Olaf Johnson - on earth - would do some transmission experiments with geometrical ESP cards. An extremely sensitive clock measured when signals were received. Edgar Mitchell would "guess" which cards Olaf Johnson was concentrating on. They worked on probability curves, calculating how accurate the guesses were, and then related all this to the transmission time lag - the time it took the radio signal to reach earth from the moon.

The same technique was used when Olaf Johnson moved on the face of the earth to see if extrasensory perception deteriorated with increased distances.

The same technique was used again when Olaf Johnson was on the opposite side of earth, with the planetary mass between himself and Edgar Mitchell, using the earth's rotation upon its axis to time this alternate experiment.

The results of these tests were outstanding! These tests proved:

(1) ESP was independent of time. After the calculations of the time lag between earth and the moon, Edgar Mitchell's "guesses" occurred at the same instant that Olaf Johnson was concentrating on the particular card.

INSERT PICTURE

(2) ESP was independent of distance, even though Olaf Johnson's physical position moved further away.

INSERT PICTURE

(3) ESP was independent of mass, even though the earth was between the two men.

INSERT PICTURE

Therefore, a new law is being dealt with: a new law which does not follow the 1/R(2) law, but somehow or another works on a totally different principle, a principle man has never had to understand before.

Using this concept in relation to clairvoyance, it is seen that clairvoyance can be defined as follows: "My physical body is located in a given space. I am located in a given space. I received information about an event or a situation from another location, yet I am still, and have always been located in this same physical space all along. That information was brought to me from some other location. I can visualize it (clairvoyance), hear it (clairaudience), feel it (clairsentient), etc. But clairvoyance is the mode examined here.

Any time information is brought from one location to this location, where the individual is physically standing at the present, it is catalogued as clairvoyance. Telepathy is exactly the opposite. This is where information originates in this location and then is moved to another locality. In clairvoyance, information is received. In telepathy, information is transmitted elsewhere. The difference between clairvoyance and telepathy then is strictly the direction of the information flow.

The difference between clairvoyance and precognition/retrocognition is time. In other words, it is the perception of the time element which is there. Again, the information received is in a clairvoyant, clairaudient, or clairsentient form, but somehow the time element is mixed up. It is either seen as the future, or the past, rather than the present. That is the distinctional difference. The information is still the same, but the mode of information perception makes a difference.

The way clairvoyance relates to radiesthesia is even more interesting. Radiesthesia could be defined as using external objects to communicate information to the consciousness. Examples of external objects would include pendulums, tarot cards, tea leaves; anything that is of the "not me."

The difference between clairvoyance and astral projection lies only in localities. In astral projection, the physical body remains in the same physical space, yet the consciousness leaves the body and travels to where the information is; whereas, the clairvoyant receives the information from somewhere else. In other words, in a clairvoyant state, information is gathered and comes to the physical body; in astral projection, the consciousness leaves the physical body and travels to where the information is gathered, while the physical body remains immobile.

Since the Apollo 14 studies showed that extrasensory perception is independent of time, distance, and mass, it is safe to state that clairvoyance and astral projection are identical. The coordinate system used determines the way Reality is seen.

Information is a fundamental quantity. There is a uniform potential - or medium of potential - which has a data field. In other words, information is everywhere. It is absorbed in a subjectively chosen manner; then the hallucination manifests, perceived as a personal reality.

Using today's computer-chip technology, if one has enough information to ask a coherent question, one also has the information to answer it. Depending on how one accesses and

assimilates that information, receiving an answer is quite simple, or extremely difficult. The answer is contained within the question. If the information is assimilated properly, the answer is clear. The more detail put into the question, the more data there is to work with.

Information is everywhere, and is independent of everything known today. It is like a data field that transcends the concepts of time, space, or distance. Traditionally, energy has been a function of distance ($1/R^2$) but, in actuality, it is a function of time (a variable for dissipation and an unknown "X" factor. the integral of this is equal to the information and is, itself, independent of distance, time, and that "X" factor. Energy is not independent. Energy is being manipulated and controlled by information; it is a way of transmitting information.

Basically, all of the above are perceptual hallucinations. Extrasensory perception information is only brought into consciousness via some form of perceptual metaphor: it is either "seen, heard, or felt". In actual fact, consciousness is literally everywhere, permeating the field of information. It all depends upon how one wishes to view it.

The following postulates tie together all the information given earlier. It is postulated that:

1. Consciousness is everywhere (now-here). In ordinary states of consciousness, one is limiting his perception of what is actually occurring through limiting the way one is receiving the information (sensory filtering).

Examine this concept under the definition of Time. It will be found that Time is nothing more than the "duration of consciousness". From an Information Theory point-of-view, tomorrow is occurring right now, and each of us is simply not consciously aware of it yet. What someone tells you today is already affecting what you will do and think "tomorrow". It is possible to have this awareness. However, it requires an altered state, which is where extrasensory perception occurs. Altered states of consciousness are discussed in greater detail in later chapters.

2. Since extrasensory perception is independent of time, the phenomena - Time - is basically an illusion. In other words, the way one perceives what is going on is totally optional, and one may learn to control Time with various forms of hypnosis.

Student Comment: How did we get to the future if you are still talking about the "now?" The future hasn't happened yet.

Answer: What is being said right now is already programming the future. For example: "Tomorrow, I want you to meet me at ten o'clock because I have more data about hypnosis for you." Certain options, or avenues, are now open for you to act upon.

Scientists have found that many cultures work on a different time duration concept: the Hopi Indians, the Trobinder Indians, the Bhuddists. Time does not work in terms of duration, which is the way we have been socially programmed to view it. In fact, social programming does change in hypnotic states, where you change your experience of information. That is exactly what occurs in precognition. You are allowing yourself to experience it as the now because the boundary conditions which limit ego-consciousness have been suspended.

Student Comment: But the sum consensus of reality...

Answer: That is what this is all about...moving away from consensus as a criterion for reality. When an altered state of consciousness is experienced, there is no consensus which is relevant. It is an altered pattern.

What is defined as "reality" in our culture's consensus opinion is not what the Hopi Indians would call reality. They would say that the closest thing to Reality is the dream state. To the Hopi Indian, the dream state contains more information on Reality than your conscious, waking state. In all essence, consensus is a large subjective view, having nothing to do with defining the gamut of possible experiences, or events, let alone Reality. Sensory perception of consensus reality is always in explicate form. Reality is of an implicate nature, but is - knowable. (1)

Time, as it relates to space, indicates the first Postulate in "The Omega Principle": there is an all-pervasive ocean (or medium) of potential. Everything is simply connected. It is totally subjective: "I wouldn't have seen it, if I hadn't believed it!" This postulate refers to the two-dimensional versus the three-dimensional viewing of time of the three dimensions being simply connected, the way each person temporally connect the events has to do with the way that individual is receiving what is going on, in various levels of manifestation.

The physical body (Malkuth) stops right here. "I am as I am," ego-consciousness. Everything that is contained within this epidural layer of mass was considered "me" and everything outside the skin was the external world, the "not me." The mystical traditions included the aura. Today it is recognized that odor is also a part of the body, as is a verbal area around the body, radiating out. Now the "me" has a periphery around it, all connected to the ego's sense of "me."

The moon also affects the central nervous system activity. It, for instance, starts ovulation, and has a variety of mood controls. It turns on the various endocrine systems. It has so much to do with Man, that actually, Man is connected to the moon. This connection is imagined as Path 32, and all of its correspondences and ramifications. It is just the way one's perception of reality functions which informs us where "me" stops and "the moon" starts. These distinctional differences are the realm of internal topology.

1. PHILOSOPHY

a. Transitional Phase:

The Tree of Life, Topological Modeling, and Information Theory

Active participation in the realm of the imagination is central to psychology, alchemy, magick (QBL), and physics. Many, but not all, of the imaginal modes involve the concepts of topology and topography. Within the context of the topological fantasy, the various forms of ordering (Tree of Life, Isotropic Vector Matrix, planes of consciousness, etc.) provide a comprehensive means of ascertaining the values of any system of experiences. A topological model for going within describes the internal regions in terms of places, and provides a "roadmap" for the soul. However, this map is not the territory.

Topology is the study of a place; in this case the inner regions of the Collective Unconscious, as traditionally described in QBL. Topography informs us of the features of a region. It accounts for the relation of a part to the whole, and the whole to the part. It is one method of describing conditions within the holomovement. Any region (Sphere of the Tree of Life) has inherent characteristics, and also a position within the Whole circuit of the Tree.

Topology has been called the science of separation and connection.

Topology is the science of fundamental pattern and structural relationships of event constellations. It was discovered and developed by the mathematician Euler. He discovered that all patterns can be reduced to three prime conceptual characteristics: to lines; points where two lines cross or the same line crosses itself; and areas, bounded by lines. (2)

The Spheres and Paths of the Tree of Life conform to this definition, representing the entirety of psychic life with a minimal number of graphic elements. In this case, topology offers a descriptive basis for both meditation and exploration of the imaginal realm.

The ancient Hebrew text, Sephir Yetzirah, The Book of Formation, describes the emanation (or unfolding from implicate to explicate) of the ten spheres of the Tree of Life. The spheres are connected to one another by twenty-two paths, which correspond to the Hebrew letters (Path O=Aleph, Path I=Beth, Path II=Gimel, etc.). Together, these bounded regions (spheres) and connecting paths form a map of the Universe. They are sometimes described as 32 Paths, counting the 10 Spheres + 22 Paths, altogether.

Both spheres and paths represent discreet domains which order diverse contents. The contents of any domain are determined by the archetypal dominant residing at the core of the content in question. In general, spheres represent modes-of-being, and paths represent transition stages, or gates between them.

Qabalah presents the individual soul as a Microcosm which is a reflection of the Celestial Man, or Macrocosm. (3) This universal man illustrates the Hermetic Axiom: "As Above, So Below."

INSERT DRAWING TRANSITION PHASES: PATHS OF THE TREE

Thus man has the option of participating consciously in the divine process of creation. The importance of the act of decision for behavior or transformation lies mainly in the fact that by it the individual changes his "position." A "path" is a change of position within a field which otherwise remains sufficiently constant. It is an abbreviated representation of a sequence of situations.

A path permits change between regions. This is both conceptual and physical change. The actions which are represented in the life-space as regions are coexisting manifolds which possess a certain structure and a certain degree of differentiation. These "regions" are the spheres of the Tree of Life.

The imaginal paths of the Tree of Life are linked to the concept of locomotion. They require a journey, or "working" by the aspirant in a process in time. The psychological region in which these processes occur determines the dynamic condition of the individual.

There is pause for consideration in the fact that pathworking is a form of "locomotion". It is O, THE FOOL who makes the journey through the winding paths of the Tree via Tarot imagery. He is nowhere (now-here) because of his ability to make quantum leaps. He is thus gripped by only one story at a time, which contains many images and its own inherent rhythm. Thus, spheres represent "Being", and THE FOOL "Becoming", transformed through his experiences on the various paths.

When one changes position, different loco-motions become possible and impossible. Even when a region is still attainable, the course of the path followed has changed fundamentally because of the new point of departure. This point of departure is "where you are at."

Tree of Life modeling may be used to classify the values of any given mystical experience, psychological state, or emotional bias in terms of its hierarchical system. It may also be used to see how the many relate to the One, using a polytheistic orientation in which consciousness circulates among a field of powers. Each God, or complex, is sovereign in its domain. The linear, developmental approach is monotheistic. In the polytheistic model, there is a circulation in which there are no preferred positions.

In data study, there are many different ways the data field may be represented. The major distinction is between positional codewords (Spheres) and those which are commutative (Paths). QBL is a coded system. The codewords are arrayed within a hierarchy, and the resultant data field takes on a distinctly patterned appearance. This information handling system permits the conceptual co-ordination of several features at the same time. The aspirant conforms to the changing circumstances in which he operates.

There are definite steps in setting up a system of information access:

- 1. Analyze the questions to be asked. This determines the type of index best suited to information retrieval, which types of items will be programmed, and what modes of access are to be used.**
- 2. Compile a collection of features, or correspondences. If many of these features are unknown, set up an orderly system of listing them as they are discovered (such as Tree of Life).**
- 3. Based on #1 and #2, estimate the number of items and features to be classified. Note rates of growth, change, or removal in any positional category of the index.**

All indexes are descriptive in a sense--features and items describe each other--but in some cases the terms of one sort are arranged in hierarchies so as to produce positional codewords which describe the terms of the other. The positional effect is latent the moment a hierarchy is made, and becomes overt when a single set of ordered characters is used time and time again, once in each position available in the codewords it makes. When items are arranged in order by means of a hierarchy of features we have a classification of the items concerned.

Hierarchical indexes form an important part of data study. They can be of use when no mechanism for logical description is available to aid in searches, when positional

codewords are needed, and when an index is called upon to reflect the structure of a subject which is itself hierarchical. (4)

In QBL, Spheres are defined by these positional codewords include the names of the spheres, titles, god-names, archangels, choir of angels, planetary attributions, spiritual experience, virtues and vices, and other corresponding symbols. All have a positional slot within a Sphere or Path. Within each Sphere, they are arranged in an array on various planes in a mini-hierarchy. This array of angelic entities functions as the "governing body" or holy ruling order of the internal realm of manifestation.

The continuum of the data field has a relationship to the circuit of the Tree of Life. It has a zero, a place of no information, which can be thought of as a decision point. Above this point, there is the graphic range of subcodes (corresponding colors, perfumes, animals, etc), then the generic point of individual fully generic terms which are irreducible to simpler forms. Then there is the direct range of increasingly complicated descriptive phrases.

The generic term (Sphere name: Kethar, Tiphareth, Yesod, etc.) is described by its own synonyms and describes its structure or function through a word or image which is its coded definition. This generic classification system allows for a variety of integrative levels. In an assembly of these generic terms, order does not matter since they all act together. An ordered assembly is necessary for conceptual clarity. A sphere has the complete set of subsystems needed in order to remain in balance with its surroundings. Its internal environment remains constant in the face of changing external circumstances.

Thus, our personal conceptualizations of the definitions of the various Spheres on different integrative levels affect the homeostasis of the organism we are temporarily inhabiting. The more firmly we conceptualize and integrate the qualities of a given sphere, the greater its ability to manifest in our life in a balanced manner. There is no split between psyche and soma: things, qualities, occurrences and changes appear throughout the set of planes or integrative levels. Furthermore, the qualities of the lower levels persist in the higher regions, i.e. there is a Malkuth of the Archetypal Plane, and there is a condition in which Kether is in Malkuth of the Physical Plane. One's worldview or pattern of meaning has boundary conditions. We select the contents of our data field from the set of all the terms we may ever be called upon to consider.

One's worldview or pattern of meaning has boundary conditions. We select the contents of our data field from the set of all the terms we may ever be called upon to consider. The most effective way of imagining these contents is fundamental to both eastern and western philosophy.

Being and consciousness are arrayed in a hierarchy of dimensional levels, which range from the lowest, densest and most isolated particles to the highest, most subtle unified level. This holistic paradigm asserts that the universe is hierarchically organized through an interconnecting series of planes. The nature of these planes alternates. What is implicate at one level, is explicate on the next lower plane. Each plane is implicate to its predecessor, but explicate to its successor. For example the astral is implicate to matter and explicate to mind.

Theoretical QBL, with its paradigm of the Four Worlds, creates a map or cartography of the higher, transcendental spheres. This is useful as an aid for those aspirants who have yet seen them. It builds a cognitive framework, by which to classify mystical experiences. The Tree of Life circuit functions as a mandalic map. To test this map in its entirety, you need merely transform yourself enough to experience these realms. This requires an altered state of consciousness, and can never be verified through objective, empirical investigation. The final stages transcend the mind, itself, with all of its conceptualizations concerning "the way things work."

Worldviews may be classified into two main divisions: 1). analytic (or reductive ego-consciousness,) and 2). holistic (unifying, diffuse awareness of anima-consciousness). Both of these represent Reality; they are, in fact, complementary modes, not antagonists. The fundamental quantity which unites these viewpoints is information.

Information Theory defines "information" strictly in terms of a relationship between an input and a receiving device. An information theory model of the Qabalah views the aspirant as the receptor of information. Some occultists like to call themselves "channels", and it is this type of "reception" to which we refer. In order to create a situation where communication is possible, it is necessary to define a channel and level of observation. In QBL, the level of observation is known as a plane, and paths of the Tree function as channels for information flow. Each channel and level has a specific nature or characteristics, and a set repertoire of symbols corresponding to the situation. This repertoire of symbols is the correspondence system, which includes colors, perfumes, animals, God-forms, orders of angels, etc. There are boundary conditions or constraints upon the transmitter's freedom of choice.

The archetype is the transmitter, and because of the constraints on its forms of expression, it manifests with a high redundancy coefficient. The more familiar you are with its characteristics, the more its appearance takes on a chronic aspect, rather than seeming magically synchronistic. In other words, you become used to it, and its message is therefore less original, but more precisely defined as time goes on. The information is more detailed.

Like QBL, the very essence of information theory involves the schematization of reality. It cuts through complexity to the most fundamental intelligible conception. Both QBL and information theory invoke the concepts of code, originality, signification, and redundancy.

The value of learning the QBL correspondence system so it becomes second nature emerges from information theory. QBL organizes the code system which is spontaneously produced by the subconscious. When we learn QBL, we learn to speak this language of the subconscious. This awareness of the inherent meaning in symbols and forms is the basis of psychology's effectiveness. In information theory terms: "Translating the message into a special language adapted to the channel in order to increase the channel's information rate is called coding. Determine the exact nature of information, the repertoire, and the repertoire's elements...A message of maximum information may appear senseless if the individual cannot decode it in order to make it intelligible." (5)

Information theory defines "form" as a message which appears to the observer as not being the result of random events. This definition of "form" is loose enough to account for

the perception of entities on subtle planes, where form is not synonymous with matter. And in fact, we find mediums which claim that these "entities" do dispense "information." This information is accepted as an input which leads to a unique adaptation to the environment. Their perception is enhanced through selection of their channel. Thus apprehension of "reality" is conditioned by perceptual selection.

Another tenet of information theory holds that if a message contains too much information, it exceeds our capacity for understanding and creates boredom. From this, we may deduce that there is no way to ever fully integrate any archetype. Any contact with the awesomeness of its potency will eventually generate movement away from it, through growing lack of interest. As more knowledge of it is gleaned, the implicate aspect of the sphere above it becomes more intriguing. So, even though we move up the Tree from sphere to sphere, there is never an exhaustion of transmittable information, at any level.

Absence of structure of internal organization is connected with too large of a flow of information. This chaotic condition is the initial reaction of the ego to the vastness of the transcendental planes of experience. Without a conceptual framework for digesting small amounts of information from these dimensions, they are unimaginable and unintegratable.

Using the orderly pattern of QBL, objects and substances (talismans), events and processes (chronicities, pathworking, and rituals), collective concepts of all types (archetypes), and many other special varieties of terms each have their niche. The information theory approach, and QBL assume a unified study of these, forming a system which operates at full efficiency. Of particular importance is the study of relationships within the data field, including exclusiveness, overlap, complementarity, etc. QBL is simultaneously a monotheistic and polytheistic philosophical system.

Most individuals do not have either the emotional or intellectual capacity to comprehend "God" as an all-inclusive principle. Those who do are known as Masters or Saints. We may, however, differentiate discreet aspects of the psyche through their corresponding states of consciousness. Even a monotheistic view of God posits divine attributes or characteristics.

In polytheistic systems, these are presented in god-forms of various deities. Each is sovereign in its realm, and has the capacity to influence the human body, emotions, ideas, and spiritual experience. Existing independent of space and time, they are equiprobable.

Thus an image is not pre-determined or predictable. It is direct perceptual experience of the unknown, or implicate order. The appearance of a symbol, however, allows us to infer manifestation of corresponding processes which will occur either in space or time (explicate form).

Symbols are useful for transformation because they function as both a primitive expression of the unconscious and an idea corresponding to the highest intuitions of the ego-consciousness.

Symbols are held enfolded in the net of an image. The predictability of symbols and the unique quality of symbols contained in an image shows a relationship between implicate and explicate order. Symbols are an important practical tool for manipulating explicate

order. Symbols are an important practical tool for manipulating explicate order, for unfolding it. They are fundamental components in the language of the psyche. Symbols are best catalogued by correspondence with their ruling principle.

Since all parts of the process are inferred, or enfolded, by a symbol, they allow us to predict future occurrences within the framework of probability. Given an elaborate, but limited repertoire of symbols, there is an upper limit to information output. Uniform distribution, or equiprobability, offers the maximum possible choice in constructing a message.

In a mystical experience, there is a communication between a human receptor and a god-form. The archetype makes its presence known through corresponding imagery. To simulate its eternal aspect, it reiterates itself over-and-over in a symbiotic relationship with humanity.

In other words, while we cannot assimilate maximum information which is the archetype itself, we can decode an optimal amount of relative information through the correspondence system. Repetition, or redundancy, increases the possibility that the message will be noticed. One is able to establish a conscious relationship with the archetype. To give it attention is to give it worship.

A message has a degree of predictability which is in ratio to its degree of coherence, or regularity. Foresight is enhanced by knowledge of what symbols are component parts of specific archetypal patterns. If one of the symbols presents itself, there is a high degree of probability others with the same theme will follow. The presence of the entire process is inferred from viewing a part of it. This part is the unfolding of a portion of the implicate order.

The concept of information unifies analytic and holographic concepts of reality.

The essential point is that both the analytic and holographic models refer to processes for generating information--and information itself is a holistic concept...In the analytical model information results from the selection of a particular outcome from a set of possibilities. In the holographic model information results from the selection of a particular outcome from a set of possibilities. In the holographic model information results from an analog mechanism that allows two states to interact with each other. Thus, although the analytic and holographic models refer to distinct means of generating information, they both rest on holistic assumptions and can be considered as complementary holistic models. Furthermore, because the analytic and holographic models both refer to the generation of information, information theory is revealed to be an underlying structure that can integrate both the analytic and holographic models...A general theory of consciousness needs to be based on holistic assumptions and needs to utilize information theory...providing a hierarchical structure which can relate the different forms of consciousness to each other. ...Although there is no standard nomenclature of states of consciousness any complete theory must address a wide variety of states of consciousness including sensation, perception, emotion, cognition, intuition, self-awareness and union (transpersonal consciousness). (6)

It is easy to see that QBL also conforms to this prescription. In fact, the states of consciousness listed correspond directly with features of the Tree of Life: sensation=Malkuth, perception=Path 32, emotion=Yesod, cognition-Hod, intuition=Netzach, self-awareness =Tiphareth, and unition=Kether. Both analytic and holographic models are useful in understanding these states. This means cognitive and experiential development should keep pace with one another for balanced development.

In Buddhism, there is a merging of the Path of Form, and the Path of Non-Form where active invoking of images is balanced by a detached observation/participation in the rising and passing away of phenomena. This is a variation of "rising on the planes." Archetypal topographies define the relationships among archetypes, how they tend to cluster among themselves.

Examination of the variety of such attempts to pattern and group archetypes is itself a valuable exercise in exploring archetypal imagination. What kind of consciousness is it that perceives in terms of organization, integration, and preferred positioning of Gods? Generally, the attempt to discover a unifying wholeness or impose a distinct pattern onto archetypal groupings is a procedure dominated by the archetype of Self. (7)

INSERT DRAWING INFORMATION + CONSCIOUSNESS

The Tree of Life, like the Buddhist Refuge Tree is "not a map of the generalized field of the psyche."

Buddhist psychology has a definite purpose--liberation or transcendence. As such it can be described by the fantasy of growth and goal orientation. I should quickly point out that this is not the totality of Buddhist Mahayana teaching, which also includes the Prajnaparamita, by which such concepts as goals, liberation and so on are declared empty of substance. (8)

This "emptying" is characterized on the Tree of Life as Daath. Bear in mind that Jung warned of the danger in identifying with the image of tree, or the Self. The image of the Tree with its associated topography is a tool which is not to become a deified symbol of wholeness. It is merely a vehicle for exploration. Basically, the Tree represents the moment when individuation culminates in the fulfillment of Kether. It is the conclusion of the evolutionary unfolding and enfolding of the soul: a return to the fountainhead of the soul.

The process includes apprehension on the physical, biological, mental, subtle, causal, and ultimate levels.

We can make a comparative analysis of planes of consciousness as described by modern psychologists, anthropologists, and sociologists with ancient systems of the perennial philosophy such as Yoga and Magick.

Remember, though, that no study however exhaustive takes the place of personal experience of these planes, and the only means of access to them is via transformation: the transition from one mode of consciousness to another.

FIVE STAGES OF SAINTS:

ALOKH (invisible, unseen); AGAM (inaccessible, unfathomable) ANAMI

FIFTH STAGE: Sat Lok; Sat-Nam Radha Soami; Sach Khand, Fourth Realm (Dimension); Bagpipe sound. Saints and Supreme Saints; Sahj (sehj) state of consciousness. "The fifth fort is the Throne of the Lord; know Him as the true King..." After meeting sahj, the soul goes toward Sat-Nam. Phoenix (Hansas or awakened souls).

FOURTH STAGE: Sohang; Bhanwar Gapha, whirling or rotation cave; Muslim's Hutal Hut; Flute sound. The soul perceives it is in essence the same as the Absolute Lord and proceeds to merge in and become one with Him.

THIRD STAGE: Parbrahm, Sunn, or Daswan Dwar; no trace of matter, gross or subtle, visible or invisible. Soul is rid of matter and mind. Lake of nectar (Anritsar). Light like full moon in a clear sky; Guitar, lute, lyre, harp sound. There are two parts of Parbrahm; the lower one has a downward tendency and creates Brahm and through him the lower universe; but upper is connected with Sat Lok and draws us upward. Master joins the souls with the upper one. Pure and chaste souls. Above Sunn is a vast expanse of utter darkness, Maha Sunn (Abyss), where some hidden spiritual secrets are revealed to the soul. Five universes exist here, with their separate Brahms. ANCHIT DIP is a sort of Spiritual Island here. The extent of this plane is extremely vast; 70x as big as our physical, astral, and causal regions. Pure spirituality ends in Parbrahm; below is mixed with Maya.

SECOND STAGE: Causal World, Trikuti is triangular in shape. Brahm or Om, Matter is present, but in very subtle form, so that it remains invisible. Gurpad, the seat of the Guru. Four petalled lotus (i.e. opened tetrahedron). Seed of all karmas is in causal plane. Root of knowledge of senses and intellect. Memories. Muslim Arsh-i-Azeem; Greek Heaven; Source of the "Word" of revealed books. Krishna. Brahmandi mind. Yogishwars and Gyani Kogis. Shakti emanates from here.

FIRST STAGE: Astral Plane. Alakh Niranjan, Jyoti Niranjan, Jhanjari Dip; Brahma, Vishnu, and Shiva; E.S.P., entrance is from the 3rd Eye. Sahasdal Kamal (1000 petal lotus), Shiv Shakti, Lakshmi Narayana, Khuda. Prophets, auliyas, yogis. Faquers and saints call it Nij-mana (real mind). Shyam Kanj, Black lotus or center. Big resounding bell sound. Set-Sunn, white, conch sound; Bank Nal (crooked tunnel) situated between Astral and Causal (known in QBL as the Gulf). Pranayam doesn't take one past the astral. Surat Shabd Yoga does, through the 5 melodies of Shabd to Sat Lok, true eternal home of peace and bliss. In the astral, God and matter (Maya-Phenomena) both are manifest and visible.

BELOW FIRST STAGE: Headquarters of material forces (gods and goddesses) Khat Chakras, includes all physical nerve plexes of Hatha Yoga. Includes entire process of raising the Kundalini. Soul is trapped by five passions: vanity, greed, anger, lust, and attachment. Space/time and matter. Do Dal Kanwal-2 petal lotus in eyes, seat of God. Saints start in their Shabd practice above the eyes from the 3rd Eye, seeing the Master's Radiant Form. Only the practice of the transcendent Name (Shabd) takes us into spiritual planes. Other yoga, occult practices, and religions which promise a heaven after death stop short at Brahm, or before. Only the union of the soul and the sound current takes us to the highest regions.

INSERT TABLE : MYSTICAL STATES OF CONSCIOUSNESS

b. Ritual: The Spiritual Hierarchy and Assuming the Godform

Both Magick and Yogic traditions assert that the Spiritual Hierarchy consists of galaxies of lords, rulers, creators, and governors of the various heavenly spheres. Each plane, or subdivision, has its governing body. These god-like powers have certain appointed functions and duties. They are, in fact, administrators in the sacred ruling order. All are subsumed ultimately by one supreme, infinite Essence.

Human Beings are related to these governing entities through the quality of soul and archetypal processes. Individuals are imbued with attitudes, functions, and behavior motivated by these various planetary rulers, usually unbeknownst to themselves.

It is not only the Supreme Being that is endowed with creative power. These lords and rulers have the power of creation in their sphere. There are many gods, and their powers and authority varies widely, but the One God is supreme.

Most of the religions of the world worship the creator god of the physical plane, confusing him with the Ultimate. His realm is actually quite limited and his function includes seeing to it that the souls who are still attached to phenomenal experience (including physical, astral, and causal) don't reach liberation, escaping the wheel of birth and death. He is the apparently supreme master of these souls. To mystics, he is the Negative Power, who keeps us hung up in illusory levels through the fascination of the mind. He is not evil, but merely a lesser good, who fulfills his role. Only the absolute represents the Truth of Existence.

The gods exist in a symbiotic relationship with humanity. We serve them and they serve us, providing we learn how to contact them consciously. All souls begin human life serving the negative power of phenomenal manifestation. This is the realm of the five passions: anger, greed, attachment, lust and pride.

Both Magick and Yoga provide remedies which allow the soul to begin its journey home. The Magickal technique begins with the following:

- 1). Rigorous practice in the development of visualization ability.
- 2). Thorough study of the characteristic god-forms, powers, functions, and attributes of each sphere. This research is enhanced by outings to museums and art galleries, viewing aesthetic representations of the gods in great paintings and sculpture. Literature makes a wide range of references to the gods.
- 3). The astral god form is contemplated in creative imagination daily until its radiant form takes on dynamic life to the aspirant.
- 4). Presuming the rite is absolutely necessary for the aspirant, s/he now proceeds to the ceremony of invocation, the calling of the form into the magickal circle.
- 5). The aspirant then becomes identified with the force he desires to manifest. Using will and imagination, he pictures the astral form permeating the Body of Light. This coincidence of form transmutes the aspirant, imbuing him with the qualities of the

god. They are unified through this vivid realization. For a more detailed account, and examples, see Israel Regardie's Tree of Life.

6). The aspirant moves in an ordered sequence through identification with the rulers of each planetary sphere. Each moves him one step up the ladder of the planes, until he embodies perfect realization of the qualities of all these entities (Kether). He arrives at the One through the many.

The technique of Shabd Yoga is similar, with one critical difference: a perfect, living Master. Since we become one with that which we contemplate, to contemplate the Master's Radiant Form assures reaching the goal, with his aid. All the symbols of the Middle Pillar are incorporated in the form of the Master. He is the image of the Higher Self (or H..G..A..) and the incarnate Son of God, since he is One with God. Contemplation of his Radiant Form is the quickest, safest Path through the planes.

The technique resembles Middle Pillar Exercise in the recitation of God-names with banishings to assure the authenticity of the astral form of the Master. Sometimes lower entities masquerade as higher forms. The soul still meets with banishings to assure the authenticity of the astral form of the Master. Sometimes lower entities masquerade as higher forms. The soul still meets with the governors of the planes (as in magick), asking each how it may then ascend higher. They are Master's representatives who aid the initiate on the Way of Return. He is the King of the sacred ruling order of existence.

Most of the psychological symbols of the causal plane will still manifest in troublesome form through the complexes, and analysis of these is useful for self-realization. However, psychological hermeneutics does not have the power to penetrate past the causal plane of the mind. It interprets the veils of maya with "meaningful" concepts.

An advantage of the Path of the Masters is that a living being is easier to truly love, than a cosmic function, no matter how "real" it may seem in imagination. The Master is a living example of the goal of human life, providing the aspirant with a sense of humility, surrender, and compassion. He embodies the ultimate god-form on all planes of existence simultaneously, a very comprehensive symbol.

The soul gravitates toward the heart's desire. If this is love for the Master, one joins him in Sat Lok. If it is for continued sensate experience, the soul remains attached to phenomena. A Master loosens the attachment to the physical plane.

Magick exalts the senses to the point of satiety. With desire fulfilled, the soul rises to higher planes. The Master also functions in this way as one becomes filled with his presence.

c. PRACTICAL QBL: Pathworking; Inroads of the Imagination

Pathworking is a magickal practice which differs from ceremonial invocation. Instead of calling in a godform into a circle, the aspirant "journeys" to the imaginal location of an archetypal Form. This pathworking is a mediating act which occurs in imagination. The imaginal world lies between the empirical and conceptual realms. This imaginal world is known to psychologists as a realm of psyche, or the soul.

How do we gain access to this realm? Once we recognize imagination as the realm of soul, we require a method through which we can explore the soul through imagination. The paths of the Tree of Life function as metaphorical "in-roads". Their correspondences produce an awareness of soul through its own system of metaphorical language.

All three types of pathworking require a preliminary study of the characteristics and qualities of the Spheres and Paths. Study the correspondence system until its metaphors are second nature, and instantly recognizable as attributes of a specific quality.

The physical aspect of pathworking includes the life experiences which precipitate into daily life as the result of an astral pathworking. These images require metaphorical interpolation into conceptual forms through meditation.

Tree of Life pathworking offers a way of "finding" or "locating" archetypes in imaginal space. Each successive pathworking increases the area of perceptible inner space.

1. At this stage of practice, the elusiveness of the image is exaggerated by the easily distracted attention of the aspirant. Some seek a short-cut to the higher planes through recourse to drugs. These promote trance-like states, and produce hallucinatory perception which is not confused with imagination by the well-informed student. This may in no manner be likened to pathworking, nor substituted in its place. The ego is absent, or incapacitated by the overpowering force of the unconscious. He is overwhelmed in a regression of consciousness. This is known as Prototaxic Mode (Gowan, 1975). It is not an in-road, but a premature invasion by the unconscious forces.

2. The major purpose of a pathworking is to produce a conscious contact with the archetypal powers connected with the particular path. There are active and passive forms of pathworking, but do not let this glib terminology lead you astray. "Passive" in this sense does not imply the ineffective attitude of type 1 experience. Both active and passive styles are required for the aspirant's training. Each is appropriate in a different context.

Active pathworking is analogous to the psychological exercise known as active imagination. This exercise of the creative imagination is an excursion into the astral plane through the faculty known as clairvoyance, a combination of ego-will and imagination. Pathworking produces an imagery state known as the Parataxic Mode (Gowan, 1975). It surpasses sensory information processing, but precedes conceptual lucidity. This is not a trance state where the images transform freely from one form to another. It is an artform.

Clairvoyance means seeing the inner world with increasing clarity. This clarity comes through ego's conscious participation. The main use of active pathworking is for introspection. In pathworking, the will forces the image to maintain certain parameters. The "will," in turn, is brought into direct, non-verbal contact with the non-rational. The aspirant is forced into situations which requires immediate reactions through feelings or instincts. The will maintains a sense of responsibility for ego's behavior on the inner planes. Both cognitive and emotional perception are involved. The ego's forceful elaboration helps to ensure the unfolding of a particular imaginative sequence.

An active pathworking traces the routes described in QBL as the transition stages between Spheres. A pathworking begins in one sphere, and culminates in the sphere immediately

higher on the Middle Pillar. The peripheral paths join various spheres of the Tree in an orderly pattern. Any time two particular terminals are used, the traveler establishes a contact with both the "place" and the "entities" who are to be found inhabiting the area. With repetition, the imaginal reality of the place is confirmed through personal experience. The aspirant becomes an accepted visitor in these regions.

All pathworkings return the traveler to the point of origin. This is why the ego must be able to maintain concentration and follow through.

It is important to have a well defined intention in any work of this nature. The symbol system to be used as a guide line was that of the 32nd Path of the Tree of Life, for the traditional technique is to start in an imaginary temple representing the Sephirah from which one starts, to picture the relevant Tarot Trump on one side of this temple, to pass through the Trump as into a picture and proceed through whatever scenery and experiences one may find until one comes to a central point, the Hebrew letter allocated to the Path. From thence one continues the imaginary journey until just before the further Sephirah one meets the relevant astrological symbol, and shortly after views the further Sephirah of the Path. One then returns by the way one came, recapitulating briefly all that one met on the way out. This step is most important, particularly in the fact that it is a preparation for more advanced work when the pictures of the visual imagination give way to actual flora, fauna and locations of the objective Astral Plane, when to be lost with no plan of return can be a serious matter.
(9)

3. Passive Pathworking is not a contradiction in terms, but indicates that ego-consciousness is present, though it does not calculatingly interfere with the unfolding of psychic imagery. This passive working is actually more advanced because the traveler must employ his creativity or ability to synthesize information. The practitioner requires an ability to deal with opening of the lower, as well as the higher mind.

This form of pathworking uses a doorway of some type to initiate the experience. This might again be a Tarot Card, or an I Ching Hexagram, last night's dream image, etc. The difference is that instead of following procedure instructions on where to go, and what to visualize (from the correspondence system), one allows the pathworking itself to present the images.

This passive pathworking may be likened in some respects to what is termed "archetypal imagination" in 3rd Generation Jungian Psychology. This is an authentic visionary mode of experience. It is a causal level experience which produces keen perception or insight. The distinction between the magickal and Jungian models is that the magickal model employs the Body of Light as the vehicle for travel of the aspirant. This shape must be kept in awareness at all times.

If the main purpose of pathworking is to contact the archetypal power behind it, an examination of the meaning of "archetypal" ought to be firmly established in the aspirant's mind.

Archetypal Theory in modern psychology asserts four general premises:

- 1. Archetypes are located in the soul.*
- 2. Psychopathology is emphasized.*
- 3. Archetypes are decidedly important and numinous.*
- 4. The ego is desubstantiated in a radical sense. (10)*

In archetypal psychology, pathology is recognized as an essential component of the human soul. Therefore, these psychologists explore the divine by insight into the light and dark aspects of the gods. "The dark Gods and the dark sides of all the Gods came to receive special emphasis. For the Greeks, it would seem, have left us a legacy in their varied divine images of darkness, death, and perversion--a means for us to redeem the dignity in much of our suffering."(11) The ego is relativized in this operation, because it comes to understand that the divine forces are so powerful, the ego cannot really "do" anything to them. Ego becomes one archetypal perspective, with no necessity for strengthening or humbling.

Archetypal Psychology recognizes the many varieties of consciousness indicated in QBL by planetary attributions, "freeing individuation from stereotypes of an ego on the road to a Self. By reflecting this plurality and freedom of styles within the structures of myth, the archetypal perspective to experience may be furthered." (12)

Archetypal Imagination is one phase beyond active imagination.

The paradox is that active imagination, though permitting a first glimpse into this extra-personal domain, is not by itself adequate as a means of exploring the entirety of such a domain. The core of active imagining remains, in Jung's words, "a method of introspection for observing the stream of interior images." (CW 9: i, meaning, but to enter the archetypal region itself an archetypal or visionary imagination is required which by its very nature transcends active imagining. (13)

Since there are no procedural constraints in this passive pathworking, just what can the aspirant expect to experience through this awakened visionary mode?

Archetypal Imagination "combines the necessity of specific acts of consciousness with entry into a domain that is extraconscious and even extrahuman . . . it is nonetheless not the most ultimate region of human experience." (14) This is the realm of true inner plane contact. It is through this form of imagination that we come to know archetypes.

There is no name for what is now imagined visionarily other than the names given to it -- names that are themselves always plural in form -- in folklore, in classical Greek mythology, in the symbols of dreams. If it is true, as Hillman suggests, that it is "through the imagination that man has access to the Gods", this access is attained only through a genuinely archetypal imagination and, further, the deities reached in this way are named conjointly. To recognize this is not to revert to nominalism, for the names in question convey presences -- they are presences. (15)

There is only a sense of radically shifting modes of awareness as the mind migrates from the nameless and nonfixed nature of conscious imagining, through the singularly named

and potently personified contents of passive and active imagining, to the collectively named Names -- to the archetypes, to the gods -- of luminously visionary imagination. (16)

Casey (1974) makes it clear that "a visionary imagination is capable of disclosing a crowded canvas of angels or demons, planetary gods or super-celestial beings."(17)

This mode of pathworking is inherently suitable for Middle Pillar work. If imagination mediates, it does so in a distinctive and irreplaceable manner. This is above all true of an archetypal imagination, which provides a necessary and unique medium within which archetypal realities come to be reflected in the form of vibrant images. Archetypal imagining as a via media is uneliminable insofar as it supplies structure to what is psychically real. As genuinely intermediate, it surpasses sensible particularity while foreshadowing strictly formal or ideational modes of being. It offers both a way out of the snares of sensationalized and a way toward a sphere of being that is ontologically ultimate. (18)

These three methods if interaction with the subconscious forces may be summarized as follows:

- 1. The ego feels proud in its control fantasy of imagination. When this confident ego meets with the true numinous power of the unconscious, it's image of itself fragments. The "opposites" are now constellated, demanding some form of reconciliation.**
- 2. The stunned ego eventually develops a means of coping with the avenging unconscious. Since synthesis of conscious and unconscious has become an imperative necessity, images of focusing and centering appear. Active imagination is appropriate at this stage. The symbols of the Self constellate to reintegrate the fragmented personality.**
- 3. Finally, one develops a sense of archetypal topography as a means of experiencing an archetypally structured world. This mode of apperception is visionary imagination, an interaction of an individual with divine, immortal Forms.**

ACTIVE IMAGINATION EXERCISE

Procedure:

Marie Louise VonFranz has formatted Active Imagination into five major steps. The preliminary phase includes establishing the intent or goal of the operation.

- I. First, one must empty one's mind from the trains of thought of the ego.**
- II. Then comes the second step: It is the phase of letting an unconscious fantasy image enter into the field of inner attention...focus on it, and here one has to look out for two kinds of mistake: either one focuses too much and this arrests the image, fixing it literally so to speak, or one focuses too little and then the inner images are apt to change too quickly - a kind of "inner cinema" begins to run.**

III. This consists in giving the fantasy some form of expression; in writing it down, painting it, sculpting or noting the music which one heard, or in dancing it. In the latter case, the body comes into it which is sometimes very necessary...It often also helps to perform a small ritual like lighting a candle, walking in a circle, etc.

IV. The fourth step is the decisive one where most other modern parallel techniques miss out. It is the ethical confrontation with whatever one has previously produced. Here Jung warns against a most frequent and fatal mistake: namely that one enters the "inner play" with a fictitious ego and not with one's own true ego. (To get the full effect don't just watch yourself doing these things. Be the unique individual you are, interacting with the images of inner space. Once the experiment is begun, the ego is compelled to participate.)

V. Finally, there is one more step...one has to apply whatever is said, ordered or asked for in active imagination to ordinary life. (19)

Dangers:

1) There is the chance of repressed unconscious forces breaking through into daily life, overcoming and usurping the position of the ego. The higher and lower astral plane are opened and the traveler meets terrifying beings or circumstances beyond his ken. These waking nightmares loose one's own greatest fears. Frequently, they center around past trauma. Active Imagination is a means of facing up to and dealing with these shadowy problems.

2) Psychosomatic manifestations, such as changes in blood pressure or heartbeat.

The Western alchemists mostly used matter outside their body, asserting that "our soul imagines great things outside the body" (extra corpus). Paracelsus and his pupil Gerhard Dorn, however, also tried to experiment with "the inner firmament" within their own bodies with some outer magical performances; these had--per analogy--asynchronistic relationship to the matter in the body. Thus active imagination is actually very much concerned with the body but essentially with its basic chemical components and their symbolic meaning. I have often observed strong physical positive and negative reactions in case of a rightly or wrongly conducted active imagination; one analysed even once suffered a severe but purely psychogenic heart-attack, when he betrayed his feelings with an active imagination. A great problem is raised by the strong affects and emotions. In his own experiment Jung sometimes used yoga exercises to master them first, before he could, so to speak, extract an image from them to which he could relate in active imagination. (20)

3) Emotional. The individual experiences euphoria from each pathworking as the ego identifies with the archetypal contents of the event. There will be a reactionary let down, but this shouldn't last long.

4) Occult lore speaks of the Dweller on the Threshold, where old fears are met.

. . . I came into contact with the archetypal forms when an image of the Tarot Old Pan or Devil appeared, unsummoned and unwanted. It was a classic Christian devil with an

emanation of "evil" as real as the beneficence I had felt when interacting with the archetype of The Sun. I tried to end the experience by opening my eyes, but I discovered that I was unable to move or perform this simple feat. I was paralyzed. I began to panic. . .The Old Pan entity became even more menacing than before, placing himself in my inner world between me and the stairway to the outer world and safety. . .blocked my every move. . .He did not advance toward me but remained as a moving blockage to any possible exit. Finally I was able to concentrate on my outer body sufficiently to try to move. . .Using all my will and ignoring the Old Pan figure entirely, I managed this feat, and it broke the state in which I had been locked. (21)

5) Ritualistic forms of active imagination constellate synchronistic events. This may be misinterpreted as "magical" effects in one's judgment becomes blurred by excitement. there is a critical distinction between desire or wish fulfillment of the ego and the experience of true imagination.

. . .it is tempting to speak, with Corbin, of visionary imagining as "magical". But if it is magical, it is not merely in Sarte's sense of escaping all causal explanation. Rather, it is a magical act in the spirit of what Paracelsus called "true imagination" (Imaginatio vera), which transmutes gross matter into subtle, immaterial bodies; or in the sense of the hermetic psychology of imagination to be found in Pico della Mirandola, Ficino, and Bruno, for all of whom images were talismanic presences of the demonic. (22)

Guidelines for Practice:

- 1) There is no rush to experience every Tarot Path via imagination. Work up the Tree, Path 32, 31, 30, etc. Take it slowly, learning, and assimilating each new experience thoroughly before going on.**
- 2) Insure your freedom from interruption through a Banishing or candle rite.**
- 3) Establish a time limit; it is a good idea to have a trusted monitor nearby.**
- 4) Record results in your journal, including physical plane reactions, and synchronicities.**
- 5) Never do an active imagination which concerns living persons (this includes intentional visualization of sexual fantasies). This is unethical as it constitutes an encroachment upon the True Will of others. It is an improper application of the technique.**
- 6) Ground exercises in active imagination by applying the experiences gained in pathworking to daily life.**
- 7) Try to establish contact with your personal "inner guide" who will always offer protection if requested and allowed to do so.**

FOOTNOTES

1. Ken Wilber, The Holographic Paradigm, Shambhalla, Boulder, 1982, p53. Quotes David Bohm as saying it is absurd that man cannot know reality. "...reality is whatever man can know, by definition. Reality is based on the res, meaning "thing," and the thing is what is known. You see, the word res is based on the rere, meaning to think, and the thing is what you can think about, essentially. So reality is just what man can know...reality is the implicate order."

2. R. Buckminster Fuller, *Operating Manual for Spaceship Earth*.
3. A. Crowley has suggested "The soul interprets the universe; the universe veils the soul."
4. J.L. Jolley, *Data Study*.
5. Abraham Moles, *Information Theory and Esthetic Perception*.
6. Ken Wilbur, *The Holographic Paradigm*, Shambhalla, Boulder, 1982, p146.
7. Peter Bishop, "Archetypal Topography," Spring 1981, Spring Pub., Dallas, 1981.
8. *Ibid.*
9. Gareth Knight, et al, *The New Dimensions Red Book*, "A Guide to Experiments in Astral Magic," (Helios Book Service Publications Ltd.; Cheltenham, Glos., 1968); p. 12.
10. James Hillman, ed., Spring 1975, "Archetypal Theory After Jung," Naomi R. Goldenberg; (Spring Publications, Dallas, 1975), p. 211.
11. *Ibid.* p. 143.
12. James Hillman, Spring 1970, "Why Archetypal Psychology?" (Spring Publ., Dallas, 1970), p. 21.
13. James Hillman, Spring 1974, "Toward An Archetypal Imagination", Edward S. Casey, (Spring Publications, Dallas, 1970), p. 21.
14. Edward S. Casey, "Toward an Archetypal Imagination", Spring 1974; (Spring Publications, Dallas, 1974); p. 23.
15. *Ibid.* p. 23.
16. *Ibid.* p. 28.
17. *Ibid.* p. 22.
18. *Ibid.* p. 26-27.
19. M.L. vonFranz, "On Active Imagination", *Methods of Treatment in Analytical Psychology*, Ed. Ian F. Baker; (Verlag Adolf Bonz GMBH, D-Fellbach, 1980) pp. 88-99.
20. M.L. vonFranz, "On Active Imagination", *Methods of Treatment in Analytical Psychology*; p. 89f.
21. Edwin C. Steinbrecher, *The Inner Guide Meditation*; (Blue Feather Press, Santa Fe, New Mexico) 1975; p. 46.
22. Edward S. Casey, "Toward An Archetypal Imagination", Spring 1974; (Spring Pub., Dallas, 1974); p. 22.

2. PSYCHOLOGY

a. Psychological Model:

ARCHETYPES: Fundamental Components of Daily Life

Archetypes are forms or images of a collective nature which occur practically all over the earth as constituents of myths and at the same time as autochthonous (1) individual products of unconscious origin.

Archetypes may be considered the fundamental elements of the unconscious mind. Hidden in the depths of the psyche they are systems of readiness for action and at the same time images and emotions. Indeed, they are its psychic aspect.

--Carl Jung

Depth Psychology has provided a great deal of insight concerning human spiritual or mystical experience. It deals most fully with the individual who may be characterized as a seeker. Alchemy and magick were the psychological languages of the past. They were the means for realizing the quest, or journey into the depths of the subconscious. Today, archetypal psychology shows the efficiency of the old practices, and allows us to improve our own awareness by drawing from its resources.

Psychology provides a technical language which allows us to formulate contemporary definitions for the spiritual experiences which, in the past, were referred to as "the mysteries." The psychological language seems to de-glamorize the occult practices; however, it represents a growing conscious understanding of the dynamics involved.

Jung developed a model of the psyche from empirical observations made during the course of his clinical research. Jung saw man, not as an isolated individual, but as having links with all mankind through a collective unconscious. This unconscious manifests in multiple forms.

Jung observed that archetypes should not be thought of as nouns, but rather as semantic metaphors. They represent an "as if" reality. They cannot be observed on the plane of their existence, directly and finally. However, their existence is inferred through their various forms of representation (imagery). Their areas of influence are fields of potential experience.

Jung used a metaphorical model to describe archetypes. He likened them to dried up river beds, to which the water may return at any time. The waters of life flow in specific patterns which dig deep channels. When the archetypes become activated in an individual psyche, these nourishing waters return, flowing through their predetermined courses.

Archetypes embody paradox. There are certain characteristics of their double existence which we may observe. They may be viewed as uniting apparently irreconcilable opposites through an underlying continuum.

- 1. They are full of internal oppositions, positive and negative poles, (i.e. they appear as good and evil, sometimes simultaneously).**
- 2. They are unknowable and known through images.**
- 3. They are both instinct and spirit, united in a continuum.**
- 4. They are congenital, yet not inherited.**
- 5. They are purely formal structures and contents.**

6. They are psychic and extraspsychic (psychoid, extending further than the limitations of the psyche).

In the past, mankind referred to archetypes as gods and goddesses. It is "as if" archetypes compel our behavior until we develop a conscious relationship with them. In psychological work, their characteristic qualities and effects must be distinguished one-by-one, for instance, understanding the difference between Hera and Demeter, or Zeus, etc. Relationships of archetypes with one another and to an individual ego are related in myth. When one of these godforms interferes in an individual daily life, the manifestation is known as a "complex."

The intentional deepening of conscious relationship with various archetypes is known in Magick as the exercise of Rising on the Planes. Consciousness moves from perception of only the physical world as "real" to recognition and observation of the archetypes on the imaginal/emotional level (astral plane). Later, one learns to perceive their effects on ideas and styles of thinking (causal plane). Look for archetypes in your problems, moods, and ideas. The final change of plane implies union with the archetype on its own plane of existence, beyond form and form (archetypal plane).

Archetypes express themselves through their fundamental patterns of symbol formation. The collective inheritance is not one of inherited ideas, but of inherited pathways. Each archetype has characteristic correspondences. They provide an underlying unity for diverse forms of symbolism. These can include god-forms of different cultures, colors, plants, animals, parts of the body, psychological states, etc.

The symbolic content in fairy tales, religions, sagas, and myth are all similar. Importance is not found in the actual symbol, but in what it represents of deeper levels of the psyche. Be careful not to confuse archetypal representations like images, ideas, and gods (which are astral and causal plane perceptions) with the archetype as such, which "lives" on a higher plane of existence.

Archetypes gain life and meaning when the motif is filled out through personal experience. This experience may be apparently mundane. It may also be filled with a sense of the unknown, and a feeling of sacredness. There is a specific feeling-value attached to archetypal experience. The feeling of absolute correctness it brings is often the source of self-deception. Only total experience, not mere intellectual understanding, can convey the individual value such an encounter brings.

The archetype manifests not only as a static image, but also in dynamic processes. The differentiation of a function of consciousness is an example. Perhaps an individual is a "thinking" type, out of touch with his feelings. The Self might then initiate the process whereby he comes to wholeness through experiencing his emotional sensitivity. There is an archetype behind all processes.

As we move toward consciousness of archetypes, our mode of apprehending them alters. First and foremost, they are found in myth, dream and fantasy represented in the form of Gods (often in contemporary dress). They also influence us in less obvious ways; 1) they may be projected to someone in the environment (such as someone you despise carries your

shadow qualities), or 2) we may become so fascinated by a powerful archetype that we ourselves become possessed, losing conscious control of our thoughts and behavior. (to return to the example above, possession by the shadow would mean acting out repressed qualities in antisocial or criminal behavior).

When the ego cannot differentiate itself from the archetypes of the unconscious, it identifies with the energy being released through the archetypal experience and becomes inflated. Consciousness regresses into a less conscious state, producing a mirage of superiority. This is commonly known as an ego-trip. In time, the ego gains a less-biased view of itself and comes to a realistic evaluation of its relationship with totality or the Self. The ego learns to understand it does not possess Aphrodite's, or Zeus' powers, and voluntarily assumes a subordinate role in the psychic economy.

When consciousness has developed to the heart level (Tiphareth), light is generated by insight and we see archetypal processes operating in dynamic flux. One sees through projection and possession from a level beyond the ego. One watches the gods as they motivate behavior and cause changes in attitudes, beliefs, and ideas. These are indispensable steps on the path to individuation or coming to wholeness. In this manner we may consciously adapt to our fate, transmuting it into inner experience.

Re-assimilating (or recognizing) projections allows the freed libido to activate a function bridging conscious and unconscious, increasing self-knowledge. This energy which formerly went into maintaining an extroverted illusion now is free to mediate a subtler perception. Gods or archetypes do not appear in isolation; they are always found in characteristic relationships with one another.

Once you perceive archetypal material manifesting in your life, and begin to distinguish one god from another, your mental imagery might be expected to come more sharply into focus. Archetypes on the inner planes produce a quasi- or partial conscious. They behave like independent personalities. The archetypal dominant in a given person's life determines the life-theme most frequently repeated (see *Pantheon: Archetypal Encounters in Daily Living*). Archetypes produce behaviour patterns. Conscious control of life by the ego is a mere fantasy.

Archetypes are also revealed in art, dreams, mandalas, tarot cards, idiographs, and glyphs. In these cases, the presentational form is not necessarily personalized. One uses a standardized card, for instance, as a medium to communicate with one's self, and moves to the more basic level represented by the symbol content of that card. All forms of art express the collective unconscious of a given culture through symbol.

Symbols always stand for that which is not known. There is always an emotional tone attached to a symbol as well. There is a close correlation between symbol, feeling and color. These analogies go toward building up the representational form of the archetypes (thus, Artemis' color is blue, Aphrodite is associated with green, etc.). They may only be recognized through the effects that they produce upon the self.

Archetypes act like instincts when they shape the conscious contents through motivation and modification. Neumann states, "They are the main constituents of mythology, they

stand in an organic relationship to one another and their stage of development succession determines the growth of consciousness." In other words, within his "growth fantasy", Neumann postulates that if one can become adept at perception and cooperation with archetypes, it is "as if" one could consciously advance one's stage of development. One may cooperate with the unconscious, and work in harmony toward the as-yet-unknown psychic goal.

Archetypes, then, can be seen as foci or lenses of the subconscious mind. Using the Tree of Life from QBL as a model of consciousness-development, certain archetypes may be seen as corresponding with different stages of development.

Beginning in Malkuth, the Shadow, representative of the personal unconscious contents, is the first figure to be met and reconciled. The anima and animus are contrasexual figures which often make their appearance projected onto our loved ones (Yesod). Beyond these lie the archetypal images of 'spirit' (Hod) and 'nature' (Netzach); then, the various representations of the Self (Tiphereth) such as the magical child, hero, wise old man or woman, etc.

The images become more subtle as we penetrate the depths of the psyche. Remember, in the developmental model, a firm foundation is built through dealing with the more easily-grasped images. When one image has been comprehended, its energy or libido flows into constellating the next archetype in sequence. This sequence is not fixed, but QBL is a useful tool for study, and orderly progression.

The Shadow, representing the "unlived" side of life, includes not only repressed or rejected qualities, but also the potential for creativity. One simply cannot become whole by rejecting a part of oneself. However, "coming into a relationship with one's shadow" can hardly be used to excuse irresponsible behavior. People who "act-out" their shadow through various degrees of socially unacceptable behavior, without conscious control, may be termed "possessed."

As contrasexual images, the anima and animus are often projected to members of the opposite sex. The man's feminine side is represented by his anima. This personal form of anima is conditioned by the totality of his experience with women. A man's consciousness corresponds with the solar principle. His anima, as personification of his unconscious, is lunar. When the anima is operating unconsciously, it can possess the man causing him to become moody, upset, or touchy: all of the negative aspects of the eternal woman.

On the positive side, the anima teaches emotion and relatedness. She is associated with soul or psyche. Anima is the carrier of consciousness in its journey into psyche in both men and women. Identification of the ego with consciousness is the product of a mind under the influence of the hero archetype. Projections of the transcendent anima appear as Magna Mater, Sophia, Isis, Shakti, Virgin Mary, High Priestess, prophetess.

A woman experiences the male aspect of herself through the animus. Her consciousness is characterized as lunar-feminine. Her unconscious is symbolized, not by the sun of day, but by the 'Sol niger' (or dark sun), which is connected with the father-image. When possessed

by the animus, a woman is bossy, inclined to make arbitrary statements, and is "always right."

The animus functions logically. Its activation helps the woman to organize her thinking. Animus is representative of the spirit, or logos principle. The animus is projected into the religious sphere as master of wisdom, magician, priest, protector, teacher, etc, or experienced internally as a personified link with the woman's unconscious. Emma Jung states, "what a woman has to overcome in respect to the animus is not pride, but inertia and lack of self-confidence."

When their contents are not projected (and their energetic charge lost), anima and animus form a bridge between consciousness and the unconscious (represented in QBL as the Middle Pillar). They function as filters of the contents of the collective unconscious to the conscious mind. They function very effectively as long as the tendencies of the conscious mind. They function very effectively as long as the tendencies of the conscious and unconscious do not diverge greatly. Anima and animus should be born constantly in mind in evaluating one's interactions. Constant observation pays the unconscious a tribute that more or less guarantees greater harmony.

The integration of the shadow, or the realization of the personal unconscious, marks the first stage of the "descent" into the depths of the psyche. Without it, a recognition of the anima or animus is impossible. The anima or animus is developed through a relation to a partner of the opposite sex, generally. Only in such a relationship do the projections become activated and observable.

There are three basic reasons why one should try to learn to use these projections as operatives: 1) to gain communion with one's contrasexual aspect, 2) to strengthen the link between consciousness and the unconscious, 3) to come into real relationships with others, rather than relating to one's illusory image of them.

The multiplicity of archetypal forms is contained or coordinated in the archetype of the Self. It shows an underlying unity in multiplicity. The archetype presides over the process of psychic transformation or the spiritual quest. Its common images are child, king, or sacrificed god. It has been personified in the Christ, Holy Guardian Angel, and the higher Self.

Reality is contained in many symbols. One can relate them via a system of correspondences. Seeing the signs, hidden meanings, extracting the subjective value builds a structure. Then, we can read the message in the apparently formless flow of events.

Archetypes bring with them a sense of destiny, a certain fatedness. They activate synchronistic phenomena; they are an acausal connecting principle. Through the "vocabulary" of the correspondence system, one may assemble corroborating evidence that particular archetypal patterns are at work in one's life. For instance, falling in love may correspond with some transit of Venus in the birthchart.

The magical correspondence system allows us to consciously choose to produce a certain turn in our psychology. We use the correspondences to create the atmosphere of any given portion of the personality, and later of the individuality. The correspondences speak in a

language the subconscious not only understands but also responds to, willingly. The imagination is very important in this archetypal structuring. According to Jung, magic is "the first achievement wrested by primitive man from instinctual energy, through analogy-building."

The imagination, in creating and using the correspondence system, is one of the great pointers for Reality. It is the creative path which enables man to survive, adapt, and progress. A magical ceremony creates working potential for relationship to the psyche. Because of its value it exerts a determining and stimulating effect on the imagination.

By taking imagination seriously, tapping into the level beyond personal fantasy, we may view the images produced and correspond them to a major archetypal pattern (usually determined by their mythical counterpart). This establishes a link of conscious and unconscious. Now, one may simply overlay a system or discipline which one wishes to use, to methodically assimilate some qualities of a given archetype and move beyond unconscious domination by it. The unconscious is too intimidating to encounter en masse. It is, however, possible to relate to a portion of it at a time.

Once a particular way of looking at reality is established, it automatically sets up limitations, or boundary conditions. However, there is great latitude if one has the ability to subjectively choose from many such realities, without falling prey to identification. The whole person participates in the choice, rather than being compelled by unconscious motivation.

This description of archetypes is conditioned by the assumption of a hierarchal/developmental fantasy, which itself is one literalization of the archetype of "The Way." We could have, on the other hand, examined archetypes from another perspective.

When archetypes are seen as existing co-laterally with one another, or in constant, co-equal relationship, the stages-of-development fantasy fades into the background. It depends on one's conditioned point-of-view. Both viewpoints together illustrate the psychic reality. The ability to embrace divergent points-of-view without conflict, leads to the ability to use them both as tools. This prevents a one-sided dogmatism.

The developmental model is monotheistic; it emphasizes the One God seen through many forms. The polytheistic model recognizes the sovereignty of the various gods and goddesses. It is based on relatedness, not goal-oriented development.

Remember, the world appears as you are conditioned to experience it. Different archetypes can cause you to alter viewpoints dramatically. Gods affect our styles of consciousness, and change our point of view.

In conclusion, here are some things archetypes are not: 1) defined or confined by phenomenological studies or lists of their qualities, characteristics, and correspondences; 2) they are not themselves portrayals of concepts which can be mapped out as things or places; 3) nor translatable into scientific terms from other disciplines including philosophy, as they aren't empirically derived; 4) archetypes are not restricted to principles or categories of therapy; 5) nor are they to be considered contents of the unconscious,

something contained within something else. The sacred archetype is not separated from the profane image.

None of these methods of amplification define or exhaust the possibilities of archetypal forces. They are means in expanding cognitive and emotional experience of the archetypal region, but the archetypes are cosmic forces spanning a broader continuum of existence than human mind or intuition can comprehend.

ARCHETYPES (2)

An attempt to break down the archetype's course of activity might reveal the following stages:

1. The archetype is quiescent, a structural factor in the psychoid realm of the collective unconscious, an invisible "nuclear element" and "potential carrier of meaning."
1. Through a suitable constellation--which may be conditioned by individual or collective factor---it receives additional energy; its charge is increased, and its dynamic operation begins. The individual constellation depends on the individual's state of consciousness, the collective constellation on the corresponding state of consciousness of human groups.
3. The charge of the archetype is manifested in a kind of magnetic pull on the conscious mind, which, however, is not at first recognized. It takes the form of vague emotional activity, which may swell into violent psychic agitation.
4. Attracted by the charge, the light of consciousness falls on the archetype; the archetype enters the actual psychic area, it is perceived.
5. When the archetype as such is "touched by consciousness,; it can manifest either on the "lower" biological plane and take form, for instance as an expression of instinct or as an instinctual dynamism, or on the "higher", spiritual plane as an image or idea.(3) In the later case the raw material of imagery and meaning are added to it, and the symbol is born. The symbolic guise in which it becomes visible varies and changes according to the outward and inward circumstances of the individual and the times. The encounter with the consciousness of a collectivity and its problems gives rise to collective symbols (e.g. mythologems); contact with an individual consciousness and its problems gives rise to individual symbols (as, for example, the image of a witch with the features of one's own mother).
6. The symbol acquires a certain degree of autonomy in its confrontation with the conscious mind.
7. The meaning with which the symbol is "pregnant" more or less compels the conscious mind to come to terms with it. This may occur in the most diverse ways--either spontaneously, through contemplation, representation, interpretation, etc. or in analysis.
8. The symbol may

a) be brought closer to the conscious mind by understanding and be felt and recognized in some degree belonging to the ego, but without being wholly fathomed, so that it continues to be "alive" and effective;

b) be completely fathomed and explored. Then it seems wholly integrated with the ego and assimilated by the conscious mind, but it loses its "life" and efficacy, and becomes mere allegory, a "sigh" or a conceptually unambiguous content of consciousness;

c) not be understood at all; it may confront the ego consciousness as an expression of a complex hidden, so to speak, behind it, as a hostile foreign body, split off from it and causing a dissociation in the psyche. It then becomes an autonomous splinter psyche, which can make itself felt in the form of "spirits," hallucinations, etc., that is, in all kinds of neurotic symptoms.

b. Mythic Correspondence

(1). HERA

*All Homage to Hera, stately equal of Zeus.
Her power and position are put to great use.*

Hera embodies the feminine portion of the transpersonal authority, the Self. Inner contact with this archetype for a woman is an experience of the core of her being. To be in harmony with herself, she must serve this inner dynamism. This might be seen as a modern "worship" of Hera.

A neurotic or under-developed man would have to come to terms with the authoritarian aspect of the mother complex. A man involved in developing his "feminine" side would serve Hera over and against the logos principle. This is generally a stage in the psychic life of men, whose quest for the Self culminates in the Puer/Senex reunion with masculine symbolism.

Curiously like many royal couples, Hera and Zeus are both siblings and mates. This symbolism of brother/sister love represents the restoration of bisexual totality. The fulfillment and wholeness of Zeus and Hera consists of a dyadic relationship. She wants to be in the presence of her beloved, because she derives her fulfillment through involvement. This involvement is not always pleasant.

Hera is a goddess distinguished by her great antiquity. It is interesting to note that the very first temple at Mt. Olympus was that of Hera. It dates from the second half of the 7th Century to 1000 B.C. She is also the official patroness of the Olympic Games, which were started by her muscular hero, Herakles. The fact that his twelve labors were in service to her is shown by his name being derived from hers.

Hera is, first and foremost, the wife of Zeus; if you will, wife of the Chairman of the Board of Directors. She is as potent of a directing force as he is. But in a patriarchal society her powers tend to appear in negative forms. Managerial ability can become an urge to control and direct those closest at hand--the family.

There is a great deal of animosity directed at Zeus and his mortal and immortal paramours. This must have kept Hera pretty busy, and emotionally aroused, since the number of Zeus' liaisons is legendary. But Zeus had no immunity against the onslaughts of Hera! the masculine principle, as represented by Zeus, is far from omnipotent when challenged by her powerful contrary principle.

Hera is repeatedly the victim of her own powerful emotions. The volcanic quality of her animus (inner masculinity) is embodied in Hephaistos, her lame son. This product of parthenogenesis was conceived without a father, from her brooding. As such, he came to rule volcanic activity, physical and emotional. When moody, Hera is capable of veritable explosions of strong emotions.

Hera is outspoken and she has a scolding tongue. But she is not always so overt in her attacks. Despite her moral indignation at the behavior of others, she is more than willing to manipulate the feelings of others to suit her own needs and desires.

The Hera personality is seen in the grande dame type of woman. She is given to largesse or charitable activities. She has an aristocratic aura which assumes a right to command, both activity and attention. She is born-to-order and scarcely questions this destiny as anything other than her rightful position in life. She may express herself through becoming a patron of the arts, or an administrator (for example, a Dean of Women).

As the result of her strong social concerns, she pays special attention to keeping herself attractive. She is always fashionable and publicly appropriate. She has a strong sense of honor and duty. Many find these qualities present in First Lady, Nancy Reagan. Before her, the personality of Jacqueline Kennedy fascinated the nation.

Hera prefers to grapple with concrete details, rather than muse on intellectual theories or abstractions. This can be valuable in coordinating one's estate, after all, when there is much to be done. Even though she is a bit eccentric, her innate feel for social awareness allows her to integrate and maintain acceptance by those of all social levels. Her mores will invariably reflect those of her surrounding culture.

Hera has never been psychologically far from our thoughts, but recently she has enjoyed a graphic, and rather amusing resurgence! Hera presides over the dominion including marriage, wifehood, motherhood and--the rights of women. The increasing political clout being amassed by the Equal Rights Amendment (E.R.A.) is becoming a significant power, even if the amendment itself remains to be added to the Constitution.

It is interesting that Hera was known in past times as Era. Thus, she is the underlying archetypal dominant of the E.R.A. All those wives and mothers proclaiming their equality in the paternal society are devotees of Hera. Women also seek an "equal pay for equal work" situation in the job market. Working women have been severely discriminated against, and are now "venting their spleen."

The stories and rites surrounding Hera indicate an instinctual background as the mating instinct. The antiquity of the goddess shows the instinctual nature of her origin. This instinct seeks fulfillment of a particular sort which will not be sublimated to other goals. If forced to deviate from its goal, it will instead turn negative.

The wifehood of Hera seeks as her essential mode-of-being the required marital union with her spouse on several levels. She is not concerned merely with his physical fidelity, or his ability to be the father of her children. She is driven by a compulsive necessity to be perfected through conjugal union. She seeks a multi-level, intimate relationship. She wants to know the ins and outs of her spouse.

INSERT PICTURE HERA JUNO

Hera cannot abide having a "token spouse" or an official husband who periodically checks in while he carries on his life elsewhere. His proximity and commitment to her are critical. She embodies the desire for the archetypal hierogamos or sacred marriage which occurs between male and female on the physical, emotional, intellectual, and spiritual planes of experience. You bet, she wants to stay abreast of his business dealings. What if he should die and she needs to take charge! Hera would probably prefer to have Zeus all to herself, if her secret wish were known. But, in time, this would no doubt prove quite troublesome.

Hera wishes to experience depth of relationship with Zeus. To her, marriage is no abstract institution. She does not wish him to assert his independence from wedlock with her. She doesn't even wish him to turn inward on his own resources. If he follows his own inner feminine voice and becomes too introverted, she feels thwarted in her fulfillment.

The fact is, Hera and Zeus are interdependent on one another for fulfillment of this basic drive. This is the daily confrontation of married life, merely being in one another's presence. Having meaningful interaction requires renewed concern for the "now." It makes marriage an arena for individuation of the partners through the mutual give-and-take of everyday life. The sacred marriage is no final act but requires periodic renewal. This cyclic renewal is intrinsic to the Hera cult. She was symbolically purified and renewed her commitment to Zeus in recurrent wedding ceremonies.

These multiple weddings indicate a return to the condition of unconscious, original identity. At the time of the wedding, Zeus and Hera are truly one through the process of identification or participation mystique. But, inevitably, another crisis situation creates a critical atmosphere, but it is a necessary prelude to conscious realizations. And the cycle goes on...

Since the state of the minds of the partners are not identical, there are usually differences in adjustment to marriage. Differences in tempo, and in the degree of spiritual development are typical causes of difficulty, according to Jung. One partner is generally more psychologically complex than the other. This partner is frequently capable of much faster personal growth, but may be erratic.

The spouse who is grounded in a positive relationship to the parents can generally adapt better. They are not hindered by a deep seated unconscious tie to the parents, and are therefore more mature. A complex nature has many facets and seeks to realize many of them. Versatility has a certain charm, but it can mask an underlying impulsiveness.

Jung thought that woman's spiritual life was contained in her relationship to her husband. Conversely, a man is contained emotionally in his wife. This may have been the case in his day. However, the alternative lifestyle movement has produced many spiritually oriented

persons with commitments outside the Dyad. For example, a woman devotee of a spiritual Master obviously is not wholly contained spiritually by her husband. Likewise, a man involved in intensive social action such as counseling, has a vigorous emotional life outside the home.

These divided loyalties are actually healthier than the all-or-nothing proposition of having no essential obligations or binding interests outside of the marriage. Nevertheless, the simpler spouse has the advantage of undividedness. The other spouse can envy this condition, feeling himself outside the marriage. This can become problematical, as it awakens longings in him for that particular bliss. His many-facetedness may fragment creating a crisis to bring conflict to ahead.

INSERT PICTURE HERA AND ZEUS

He or she seeks the completion and contentedness the other seems to wallow in. When he begins to squirm, her insecurities are painfully aroused. The specter of rivals begins to appear on the horizon. Driven inward by disappointment the spouse may become desperate or violent, exploding in a spasm of rage and manipulative tactics. Forced to turn in on herself, she may even be lucky enough to find an inner self sufficiency.

As the possibilities of inner integration become apparent to both spouses, they have the possibility of achieving the experience of an undivided self. This is a quantum leap in consciousness...a metamorphosis. This stage cannot come without confrontation of the anima/animus. The constant animosity depicted in the Zeus-Hera configuration has a telos or goal.

Every phase of life has its particular psychological goals as well as physical changes. One can always hope to be surprised in marriage by having one's own complexities answered by a corresponding diversity. But, progress may also be arrested at any stage of development with no further breakthroughs. Consider the divorce rate. Individual capacities for adjustment vary. Remember, Hera marries Zeus over and over again. You might think she is trying to get it right.

There is much pathology associated with this archetype including tragedy, yearning, jealousy, vindictiveness, and shrewishness. Hera is shrewd. This behavior, though inherent in her nature, is motivated by the attitude and behavior of her roaming spouse Zeus. He never seems to settle down, content with the domestic routine. When he persecutes her, through neglect of his affairs, she is distraught. She reacts so strongly that she becomes self-destructive.

In her negative phase Hera is possessed by her animus reactions. In the myth, she gave reactionary birth to many monster children, conceived by herself in the lonely brooding of her rejection. She projected this rejection by Zeus into a form of her own son, Hephaistos. His birth as a separate entity means she lost the possibility of developing her own deeply introverted creative processes. If she could only have gotten a meaningful job! She winds up rejecting her son as Zeus rejected her.

With Prometheus, another son, she gave birth to her rebellious opposition to the dominion of Zeus, meaning she expelled her ability to gain in ego-consciousness. Prometheus later has his own rebellious acts and conflicts with Zeus.

The combative Ares was the embodiment of her bloodthirsty rage, her egotism, and her jealousy. Ares warlike nature is an instinct which has wreaked havoc with mankind ever since. Finally, Hera goes really psychotic and expels the monster Typhaon. As this reptilian beast, she bursts all fetters and runs amok. With no limit to her destructive capabilities, who knows what she might do.

At this point, one can only hope for mitigation, not litigation. Perhaps it is time for another purification and transformation through a renewal of the sacred aspect of marriage. In the Argive legends, Hera was known as "the goddess of the yoke." The meaning of yoga is 'yoking' or 'union'. And in this sense, marriage may be considered a yoga, and an arena for spiritual development. On the plus side, Hera was also Mother of the Charites (Faith, Hope, and Love), gaining thereby her affinity for charitable work.

Cultural Correspondences: Juno (Roman);Lakshmi, Radha (Hindu)

Further Reading:

- 1). Zeus and Hera, by C. Kerényi
- 2). "Hera: Bound and Unbound" by Murray Stein in Spring
- 3). The Meaning of Aphrodite by Paul Friedrich
- 4). Marriage: Dead or Alive by Adolph Guggenbuhl-Craig, Spring Publications
- 5). "Marriage as a Psychological Relationship" by Jung (CW)
- 6). The Twelve Olympians

2. Saturn/Kronos, the Puer Senex Archetype

*Chronos, the Ancient, SPACE/TIME in one.
It is he, who chronologically devours all suns.*

Chronos is known as the Lord of Form and Boundaries. He was the offspring of Uranus and Rhea, archetypal grandfather and grandmother. Rhea made a scythe and talked Chronos into using it to overthrow or emasculate Uranus. When Uranus became impotent, Chronos liberated his siblings who procreated further. Chronos and Rhea mated and produced

Hestia Hades Demeter Poseidon Hera Zeus

An oracle had predicted that Chronos would be overthrown by one of his sons so he promptly swallowed them up. Rhea tricked him into disgorging the children, whereupon Zeus cast Chronos into the depths of the universe. In other words, Chronos became enchained in matter and SPACE/TIME entered phenomenal existence.

Chronos' role as a Devouring Father is examined by Murray Stein in *Fathers and Mothers*:

Kronos, whose name means "time," brings in an essential aspect of ego-consciousness. Unlike Ouranos, who is the eternal, infinite sky, Kronos underlies our perception of

past-present-future, our orientation in time. His castration of Ouranos, therefore, means the end of eternal blind reproduction, of purely instinctual fecundity, age following age endlessly, driven on by unself-conscious spirit. After the castration of Ouranos this kind of creativity is no longer possible. Genius enters the stage of time- and self-consciousness. The castrating instrument of Kronos becomes the scythe of Father Time.

...Whereas the strategy of Ouranos is to keep his potential rivals, his children, unconscious through repression in materia, the strategy of Kronos is to incorporate them and thys to spiritualize or psychologize them, thereby severing them from their instinctual origins. ...This act of splitting positive and negative, spiritual and instinctual, creative and destructive is Kronos swallowing his children...under Kronos all the children have to be incorporated in spirit.

The brooding conservatism of Chronos manifests in the psychological complex known as the Puer/Senex. It represents the polarities of Eternal Youth and Father Time. In Latin, Senex means old man, but may also be applied to an old woman who exhibits certain traits.

We can take a small mental journey through time, analogous to the magickal operation of Rising on the Planes, where the mind moves from the physical earth-reality out to the reaches of the universe. Actually both of these operations take place in the seamlessly welded relative reality of spacetime...to go or look further away is go seemingly backwards in time.

Duration Ages or Periods

In Seconds Of Time

10(25) Unknown Outer Limits of Time

10(20) Possible Age of the Universe

Age of the Earth (5 Billion Years)

One Revolution of the Sun Around the Galaxy

10(15) Age of Younger Mountain Systems

Duration of Human Race (A Million Years)

Written History

10(10) Age of a Nation

One Revolution of the Earth Around the Sun (A Year)

One Revolution of the Moon Around the Earth (A Month)

10(5) One Rotation of the Earth (A Day)

An Hour

A Minute

10(0) A Second

Blink of an Eye

Vibration Period of Audible Sound

10(-5) A Flash of Lightning

Duration of a Moon Particle

Time for Light to Cross a Room

10(-10) Vibration Period of Radar

Time for an Air Molecule to Spin Once

Vibration Period for Infra-red Radiation

10(-15) Vibration Period of Visible Light

Vibration Period of X-Rays

10(-20) Vibration Period of Gamma Rays

Time for a Proton to Revolve Once in the Nucleus of an Atom

10(-25) Unknown Inner Limits of Time

*

DIAMETER OBJECT EXAMPLES LINEAR DISTANCES

(Meters)

10(27) Possible Universe

Spherical "Horizon"

of Knowledge

10(24) Group of Supergalaxies One Billion Light-Years

Supergalaxy

Minor Group of Galaxies One Megaparsec

10(21) Large Galaxy One Million Light-Years

Small Galaxy

Galactic Satellite Cluster One Kiloparsec

10(18) Globular Cluster of Stars One Thousand Light-Years

Distance to Regulus

Distance to Nearest Star One Parsec

10(15) Multiple Star System One Light-Year

Inner Reservoir of Comets

Orbit of Pluto

10(12) Orbit of Jupiter One Billion Kilometers

Orbit of the Earth

Outer Corona of the Sun

10(9) The Sun (An Average Star) One Million Kilometers

Jupiter (A Large Planet)

The Earth

10(6) Average Moon One Thousand Kilometers

Large Asteroid

Medium Asteroid or Mountain

10(3) All Mankind (Cubic Kilometer) One Kilometer

Great Pyramid

Whale

10(0) Man (Cubic Meter) One Meter

Grapefruit

Cherry One Centimeter

10(-3) Grapeseed (Cubic Millimeter) One Millimeter

Flea or Grain of Sand

Ovum or Dust Particle

10(-6) Bacterium One Mioron

Virus

Protein Molecule

10(-9) Sugar Molecule One Millimioron

Atom One Angstrom

10(-12) Inner Atom One Thousand Fermis

10(-15) Atomic Nucleus

Elementary Particle One Fermi

10(-18) Possible Field Entity One Millifermi

10(-21) One Microfermi

10(-24) One Nanofermi

10(-27) One Picofermily

10(-30) One Kilo Wheeler

10(-33) Cell in Primal Foam One Wheeler

The qualities of the Senex or Chronos personality are the same as those which fall to Saturn in astrology: melancholy, depression, anxiety, sadism, paranoia, anality, and obsessive memory are among the most prominent.

Personification of this figure include the old wise man, elder, counselor, hermit, priest, cripple, etc. Saturn is concerned with the Law, dry data, the cold, hard facts. He is cynical and likes intellectual abstraction and principles of order. As ruler of Space/Time he has interests in geometry and astronomy. Saturn lies behind scientific systems of measurement and all hierarchical systems of philosophy and government. He oversees the process of

spiritual discipline which requires isolation and inwardness. He governs self-control and extends this mania for control to others. He provides realization through time and material manifestation.

Saturn figures prominently in every individual's cycles of becoming. The end of the process of maturation and the beginning of the aging process occurs at approximately age 30, the time of 'Saturn Return,' (when Saturn returns in the natal chart to its position at birth). This cycle is linked to attitude development and cycles of structural form. In the first 28 years of life we are conditioned by parents and culture; they program the structure of personality. In the second 28 years there is, theoretically, an individual self-expression and creative downpour until the spiritual identity crisis at 56-60, which creates the transformed cultural identity of spiritual power and self-realization. Important in this timing process are fate and genetic patterns.

Saturn rules habit, counting and remembering. There is a relationship between the Senex and a disease characteristic of old age, senility. Vasopressin is the remedy normally prescribed in these cases; it is a hormone secreted by the pituitary gland which actually restores damage done to nerve connections in the brain. Another important component in the memory process is the enzyme choline acetyltransferase. Both of these are produced less as the body ages.

Saturn is the personification of the alchemical operation known as coagulatio. This process was considered as making things stick and hold together, so that they became more solid, dense, and immobile. We find this image occurring in the aging process where it is known as cross-linkage in protein and connective tissue. During youth, there is a moderate amount of cross-linkage tying the connective tissue together so it is quite elastic. With increased age, the cross links are formed, the tissue hardens, and movement becomes restricted or painful. Chronos reminds us that we are "running out of time" by bringing an omnipresent awareness of death, (GRIM REAPER).

It is not surprising that among the fascinations of Chronos are time management programs and longevity or life extension programs. In fact, he has a program to manage or organize just about every facet of life. Chronos appears as both profane (clocktime) and sacred time. Saturn unfolds manifestations of all the gods (disgorges his children) when sacred time appears as the multiple recurrence of archetypal patterns, (Chronic reappearance).

A primary manifestation of Chronos is his tendency to depressive brooding and philosophical pessimism. He can't escape the tendency to thoroughly dissect and examine his own thoughts and feelings, and actions. This torments him. He is austere, and blocks the spontaneous out-flowing of the will. In other words, his influence is to inhibit. He is a workaholic and tries to block the urge toward transformation in his offspring. He experiences guilt, separation, and stagnation until he unites with his opposite, the Puer, and becomes the unified symbol of the Self.

The generation gap occurs because both the puer and senex project their shadows upon each other. They see in one another's mode of consciousness all those things which are anathema. Actually, the ideal lies in a balanced combination of these styles of awareness and values. This union is shown in the Tarot by the fact that there is the affinity of

Beginning and End in the cards O, The Fool and XXI, The Universe, which represent the puer and senex, respectively. In the Diamond-Body model of the Self these two paths are congruent at the nexus or center of the causal body. Saturn governs exits (like death) and entries; he therefore rules the process of initiation. Path 32, The Universe is the first stage of pathworking up the Tree of Life, beginning in Malkuth.

We are all, in a sense, prisoners in time and phenomenal existence. Saturn ruled over prisons and prisoners...he is the archetypal warden of the realm of form. The prisoners pay homage to Saturn by "doing time," or "serving time." Other clichés show the close affinity between money and time, such as "time is money," and "spending time."

Chronos has a relationship to ENTROPY. The Senex/Puer complex is the psychological manifestation of the Order/Disorder paradox. No wonder the senex is so fanatical about order: it is his radical form of self-defense:

The ego has been forged in an aspect of "profane time"; it has emerged through history as an ongoing process. The ego has related to this history with directed thinking, which cannot and must not be discarded. If sublimation is truly to mediate the order-disorder paradox, then a full experience of "profane time" is required, else entropy and disorder will not be truly included. Thus "directed thinking" must be rounded with "primitive thinking" to aid the constellation of the middle path.

Because the ego has a "linear segment" of irreversible time in its ordering acts, it inevitably will experience disorder. The more it experiences 'new values' of the objective psyche the more it must tolerate its created disorder. The order-disorder paradox becomes the main river along which the ego moves, if it is to aid in achieving psychic completion . (5)

THE PERCEPTION OF TIME (6)

SENX	PUER
(continuous, linear time) chronicity	(discontinuous, quantized time) synchronicity
CONSISTENT constant/inflexible steady/static solid/rigid dependable/monotonous methodical/mechanistic systematic/compartmentalizing	CHANGEABLE versatile/fickle adaptable/capricious supple/irresolute mobile/erratic resilient/opportunistic flexible/unstable
	SPONTANEOUS

<p>DELIBERATE purposeful/stubborn resolute/obstinate stalwart/headstrong serious/dull philosophical/platitudinous unwavering/tedious studious/pedantic</p> <p>TRADITIONAL ceremonial/sententious formal/stiff decorous/prim "tried and true"/square conventional/stereotypic established/"old-fashioned" loyal/diehard</p> <p>TEMPERATE reserved/inhibited deferential/obsequious patient/plodding habitual/"in a rut" imperturbable/cold-blooded stoical/impassive staid/stodgy objective/disinterested "steers a middle course/ straddles the issue"</p>	<p>free/wayward unconstrained/impulsive imaginative/thoughtless playful/improvident uncontrived/negligent open/unorganized easygoing/careless</p> <p>INNOVATIVE inventive/quixotic creative/whimsical original/bizarre ingenious/perverse outspoken/ill-mannered casual/unseemly up-to-date/newfangled</p> <p>ENTHUSIASTIC exuberant/volatile ardent/immoderate fervent/rabid ebullient/manic wholehearted/intemperate intense/extravagant zealous/impatient mercurial/temperamental impassioned/moody</p>
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The experience of the Puer/Senex reunion is an experience of the male Self. It is the equivalent of the feminine experience of the reunion of Demeter and Persephone in the mother/daughter mysteries.

In alchemy, Saturn is the nigredo. This is a depressive phase at the beginning of the process. There is value and meaning in depression; it is necessary to relate to the senex; it slows down the puer impulsiveness. When we are overextended, the senex make us turn within to renew our resources. One reconnects to the well-spring of being, connecting with the deeper values of the Self. Failure to connect to introversion and entanglement in life commitments can lead to nervous collapse.

And one meaning of the experience of depression is that our wholeness, our individuation, the Self can no longer wait while we follow egotistic ways or even seek for legitimate ego fulfillment, and so the Self brings us, drives us, into the wilderness of

depression, for God waits in that place, and communication between earth and heaven is even then about to be revealed to us, if only we will attend to the vision. (7)

Of course, no one likes to be "depressed to death." There are suicides who do not make it through this dry wilderness of the psyche. James Hillman has proposed a solution to this problem in "The Negative Senex and a Renaissance Solution." Consider that order itself is a form of madness, which contains its own inherent possibility of transcending its "excessive tension" or stress. This unique solution comes through time from the past and resolves a question of how to resolve the struggle with the negative senex in ourselves and our culture.

A history of Ficino in relation to the psyche of the Renaissance is yet to be written. Nevertheless we cannot refrain from drawing lessons from the movement in his psyche. He arrived at the place where transmuting melancholy comes about through communication with one's genius in its depressive weakness, through its woundedness. The orientation of this movement was generally governed by avid intellectual curiosity, by imaginal contemplation mainly in terms of the classical ideas and Gods, and by a particular devotion to Eros and to soul. The net which held his ideas was Neoplatonic, that is, his personal survival depended upon the Platonist fantasy of the psyche. This fantasy and these dominant themes which it interwove are also propensities of puer phenomenology. (8)

There are many modern examples of the Senex personality from right-wing Republican Ronald Reagan, the Ayatollah Khoumeni with his religious fanaticism, etc. Examples of the transformed Senex are harder to find. The spiritual father of the Surat Shabd Yoga sect, in India is an example. His name is Charan Singh, and he is considered God-Realized. He is a Param Sant Sat Guru, which means he is the highest kind of Saint, a Perfect Living Master, and a Teacher as well. He teaches a conservative, ethical philosophy; but this yogic path of the union of the soul and the sound current (the Word) liberates one from the karmic wheel of birth and death.

FOOTNOTES

1. autochthonous: native to a place, indigenous; aboriginal.
2. Jolande Jacobi, Complex/Archetype/Symbol in the Psychology of C.G. Jung, (Princeton University Press, 1971); pp. 119-121.
3. Form = physical plane; image = astral plane; ideas = causal plane; myth = archetypal plane manifestations.
4. Burt Webb, The Faces of Time; (Seattle, 1977); pp. 6-18.
5. "On the Coupling of Psychic Entropy and Negentropy", Nathan J. Schwartz and Sandra Ross Schwartz
6. Malone, Michael, Psychetypes, Pocket Books, Simon and Schuster, N.Y. 1977, pg. 31.
7. "The Value and Meaning of Depression", M. Esther Harding, Publ by the Bulletin for the A.P.C. of N.Y.
8. "The Negative Senex and a Renaissance Solution", Spring 1975, James Hillman, p.75

Path 32, cont.

3. ASTROLOGY & ALCHEMY

- a. The Age Factor in Astrology, and Transits
- b. Saturn, Lord of Boundaries
- c. The Nigredo in Alchemy

4. ORIENTATION & EXERCISE

- a. Time Perception and Sensory Filtering
- b. 32nd Pathworking: The Personal Experience of Time; Hypnosis and Time Experiments
- c. Life Extension Practices (Aging, Rejuvenation, and Immortality)

3. ASTROLOGY AND ALCHEMY

a. Major Astrological Correspondences with the Age Factor

Age 7 Waxing square of Saturn to its natal place.

Age 12 First return of Jupiter to its natal place.

Age 14 Saturn opposition natal Saturn.

Age 19- New nodal cycle begins.

Age 21 Waning square of Saturn to its natal place.

Age 24 2nd return of Jupiter to its natal place.

Age 27+ Progressed Moon returns to its natal place.

Age 28 Uranus trine natal Uranus; inversion of the position of the Moons nodes. Part of Self of Astrological Spiritual Birth.

Age 29 Saturn returns to its natal place.

Age 30 The natal Sun-Moon aspect repeats itself in the progressions. Jupiter opposes natal Jupiter.

Age 36 2nd waxing square of Saturn to its natal place. 3rd return of Jupiter to its natal place.

Age 38- New nodal cycle begins.

Age 42 Uranus opposition natal Uranus; Neptune in waxing square to natal Neptune; Jupiter opposition natal Jupiter.

Age 44 2nd opposition of Saturn to its natal place.

Age 47 Inversion of the position of the Moon's nodes.

Age 48 4th return of Jupiter to its natal place.

Age 51 2nd waning square of Saturn to its natal place.

Age 55 Progressed Moon returns for second time to its natal place.

Age 56 Uranus in waning trine to Uranus; beginning of 4th nodal cycle.

Age 59 2nd return of Saturn to its natal place; 5th return of Jupiter to its natal place; Pluto in waxing square to its natal place; the natal Sun-Moon aspect repeats itself for the second time in the progressions.

Age 63 Waning square of Uranus to its natal place.

Age 65 Inversion of the position of the Moon's nodes.

Age 66 3rd waxing square of Saturn to its natal place.

Age 72 6th return of Jupiter to its natal place.

Age 75 Beginning of 5th nodal cycle; 3rd opposition of Saturn to its natal place.

Age 80 3rd waning square of Saturn to its natal place.

Age 82 2nd return of progressed Moon to its natal place.

Age 84 Uranus returns to its natal place; 7th return of Jupiter to its natal place; inversion of the position of the Moon's nodes.

(2)

INSERT PICTURE TRACTATUS PRIMI

b. SATURN, Lord of Boundaries and the Status Quo

The main planetary power of Saturn is maintenance of the status quo, including prevailing cultural attitudes. Saturn is the personification of senex consciousness, which exalts in a rigid view of the superiority of wisdom and lengthy experience.

Saturn is a slow-moving planet, so its effects characterize specific groups of people, depending on which sign Saturn occupied at their birth. Saturn reflects the concerns of specific groups, and reflects the attitude an individual has toward society and cultural norms. Saturn points up our areas of limitation, and inertia. No one individual can embody all of existence, or expand indefinitely. By setting boundaries or limits on potential, Saturn functions allow the manifestation of events and forms. Saturn sets rules, and defines structures.

Saturn is not one of the fast-travelling personal planets. It extroverts the attention towards others. It manifests in feelings of duty, responsibility, and "correctness". For example, in working dutifully at one's job, one fits in successfully in society, and maintains a reputation as socially acceptable. However, Saturn also holds us back, keeping dreams unfulfilled, and creating frustration. Some people learn life's lessons in this way, yet others continue to "buck the system." When an individual conflicts with consensus reality, he is sure to experience turmoil, depression, and anxiety.

Saturn works with an automatic quality: "What goes around comes around." Our collective society is a consciousness which guides and chastises an individual into doing his "Karma Yoga", or fulfilling the destiny created for oneself. Karma Yoga is a course of action requiring the sublimation of one's behavior. It is a purging of gross desires, and exalts the concept of selfless service to mankind as the highest ideal.

To be a liberating path, Karma Yoga requires three things: 1). True knowledge of correct values, or not equating reality with Truth. 2). Respect for all forms of life. 3). Actively willed behavior, unbiased by fear of punishment or desire of reward. Lived rightly, it is actionless-action in a selfless devotion to duty.

Saturn helps us create our individual perspective on reality. It influences our "worldview." Even though we might understand intellectually that all is in constant flux, we could not operate effectively in that mode. Therefore, our mind creates a reality system, which is pragmatic and functionally efficient in its structure. The rigidity with which we adhere to our idiosyncratic realities determines our limitations, and raises conflicts with others who use different paradigms. The differences may be socially or culturally inspired, and create warring factions.

The aging process is governed by Saturn, since it represents actualization of more and more of one's potential. It presides over lingering death and chronic illness. At its worst, senex consciousness destroys spontaneity, obsessed by its repetitive disciplines into a narrowness of emotions, mental processes, and activities.

Robert Hand summarizes the core meaning of Saturn:

Reality as culturally defined; relationship to groups, consensus. Reality as structure and limitation; rules, the consequences of error. Too much actualized and too little potential left; aging, death. The father; learning a discipline, growing into a social role, learning the rules; schools, teachers, guides, bosses. Areas of life that need work. The limits of what can be perceived by the ordinary mind. (1)

Saturn also rules crises situations of life. These can bring realizations one's inner life. Wholeness in its psychological sense is found through personal encounters with the dictates of external circumstances. Pain, frustration, and leaden depression can educate one, leading to discovery of one's self. Life's delays and disappointments create a "ripening" process in the soul.

The experience of Saturn comes in normal, wake-a-day consciousness; it is not an alternate mode, since it denies the cultural validity of "alternate states". It cannot appreciate them, lacking the experience, and denies their value as a valid perspective. Saturn uses only logical thought which provides the basis of reality.

Saturn represents the "mentalized cravings" of the causal level. It is also termed "lust of result" and prevents transformations through binding of one's energies. There is a relationship between desires, attachments, and fate (or Karma). The powers of the instincts must be transformed. Conflict between the conscious and unconscious attitudes and goals must be harmonized.

Fighting against oneself is a self-destructive mode, creating guilt, futility, and endless pain and fear. However, by working oneself through this seemingly purposeless activity, one gains a new perspective on reality. In terms of QBL, consciousness rises from Malkuth to Yesod, along the Path of the Universe, XXI. Through this means, suffering becomes a meaningful path, "evil" is transmuted into a greater good: the individual unfoldment of the path to the Self.

In ancient times, when men relied on unaided vision, the orbit of Saturn marked the limits of mankind's Universe; thus, they were synonymous. Today, our conceptual limits are expanded, but Saturn still governs in the same qualitative manner.

We are still bound by the Lord of Time/Space and ego-consciousness.

c. The Nigredo in Alchemy

The Nigredo represents the rotting stench of decay from the ego's outmoded attitudes and lack of adaptability. It occurs at the time in the life of the aspirant when the strain of the environment has become intolerable. In time, the attacked alchemist comes to realize that he must willingly subject himself to change.

Raven's head is the traditional name for the stage of the process whose technical name is the Nigredo. The Nigredo is symbolized by multiple references to black substances, and is associated with the Shadow archetype, or repressed contents of the personal unconscious. The Nigredo implied a time of melancholia, sleeplessness, and restless volatility. This stage of discomfort with the status quo is quite necessary to initiate the alchemical process. There is an inherent value and meaning in this depression.

Psychologically, one experiences a chaotic state of conflict between hostile psychic elements. There is a tendency toward regression, or losing consciousness of the motivating factors of behavior. Any emotional response to the situation is practically impossible. In modern terms, it is equivalent to the concept of psychic dissociation, which is the root of neurosis and psychosis ("falling apart").

There is always psychic suffering when you "fall" down. This suffering may even persist for a lifetime if there is a technical blunder in The Work (Opus). The alchemist must "pick himself back up." Then, there will be further transmutations from the instinctive psyche.

This stage corresponds to the encounter with the Shadow. The ego and the Shadow must eventually be reconciled. The restlessness and disorientation are the product of an initial collision between conscious and unconscious factors. This is the beginning of a descent into darkness, or the unconscious.

As long as psyche struggles in the Nigredo, it will be emotionally attached to the literal aspects of any situation. Fascinated by "facts" and the "materialness" of any condition, the alchemist fails to extract the symbolic aspect which would allow him to break through into a fresh mode of perception. Typical manifestations of this stage include long dreams, confusions, and a drained or depressed mental attitude. The symbolic attitude is preserved when the Nigredo is perceived as part of a mystery process.

Missing the point, the eye of the aspirant caught up in the Nigredo looks for what is "wrong." It ruminates on such physical questions as, Is it an organic or neurological problem creating these manifestations of depression in me? It will then propose such treatments as pills, body work, or dance therapy. Grossness casts a veil or cloak of physicality over the subtle body of the alchemist and he fails to realize it is his soul which is sick unto death. The "cure" will not come through vitamin therapy, or rejuvenating drugs, or exercise.

The élan vital, or life energy has been pulled into the unconscious, leaving the ego frustrated and discontent. The emptiness and sterility of this condition may be the result of placing too much emphasis on "getting it together" in the work-a-day world, leaving the soul cut off from the well-springs of life. The feeling of being drained, or over-extended may become so powerful that one is forced into a breakdown which demands the time for introversion and recovery of energy reserves.

INSERT PICTURE

The ability to see through to a value in depression (to experience the meaningfulness of the feeling of meaninglessness) has a prognosticative purpose. Attaching meaning to depression allows an emotional participation which unblocks the flow of psychic energy. Depression is not a loss of meaning, but the feeling of loss of a sense of meaning. This is actually the beginning point of the quest, as illustrated by such stories as Dante's *Inferno*, Rider Haggard's *SHE*, and Melville's *Moby Dick* .

If one can see that the world is beautiful, but has lost the ability to feel that beauty, there are mood swings from sullen inertia to active despair. There is a sense of fragmentation and alienation from one's self. This is a major reason individuals seek psychological analysis, or a mystical path of renewal.

This whole experience is like a journey through the wilderness and it often appears in dreams under the symbol of the "Night-sea Journey." But when the problems of the personal unconscious have been met and dealt with in analysis, a sense of inner unity and renewal is usually found. This is often accompanied by glimpses of deeper values, of the Self, for instance, that are frequently couched in the terms of religious symbolism. The analysant feels that he is once again reconciled with himself and with God so he can go back to his ordinary life with renewed zest. The wilderness is no longer barren, his life blossoms and bears fruit. (3)

Path 32, connecting Malkuth with Yesod, the Sphere of the Moon, can be the path of renewal which transmutes the alchemist from his sense of confusion and despair.

Following this state of darkness, the alchemists report that light begins to dawn, due to the rising moon, which psychologically means the beginning of insight gained through paying attention to the unconscious, to the night happenings, to dreams and so on, which throw a light on one's inner condition. The moon also refers to Eros, relatedness through feeling. In other words, when the nigredo, the blackness, has been accepted and taken to oneself, instead of being blamed on outside situations and other people, one begins to see that it is one's own withdrawal and loss of feeling one's own shadow, that is the true cause of the darkness. Then the moon rises and in recognizing that one

is suffering, not just a personal ill, but is participation in a human experience common to all mankind, feeling returns, feeling and compassion for the plight of one's fellows. That is the feminine eros; the lesser light begins to shine in the darkness of the night.

(4)

Further alchemical transmutation will bring one into the warmth of the sun, the greater light, which means there is an increase in the light of consciousness (Tiphareth stage).

And so one meaning of the experience of depression is that our wholeness, or individuation, the Self, can no longer wait while we follow egotistic ways or even seek for legitimate ego fulfillment, and so the Self brings us, drives us, into the wilderness of depression...and communication between earth and heaven is even then about to be revealed to us, if only we will attend to the vision. (5)

INSERT PICTURE

4. ORIENTATION/EXERCISE

a. Time Perception and Sensory Filtering, (Philo Stone, 1983)

The search for a higher reality has always been a major preoccupation of man. Throughout the ages, he has realized that his intellect, working through the senses, was unreliable. Either the senses reported inaccurately, or the intellect interpreted incorrectly. Or both. Certainly the emotions and associated brain chemistry biased our reactions. We are convinced that there must be some means of perceiving that which is reliable and eternal.

The search for a freedom from illusion has taken many forms. Amongst the many pathways we consider two dominant categories: science and religion. The tradition of science maintains that the intellectual evaluation of sensory data is a proper, if not the only means of viewing the universe and grasping reality. The intellect needs to be guided by dependable tools (i.e.. mathematics), the senses must be refined and expanded by physical equipment (detectors and instrumentation), and that the subjective interference (emotional bias) needs to be eliminated by proper methodology and reproducibility (scientific method and statistics).

The tradition of religion denies the value of the ordinary sensory modes and considers the intellect as a very limited part of the human potential. Instead, reality is to be approached by a supersensory perception induced by faith or ritual, or some rigorous discipline of the physical and mental being. As opposed to science, religion uses words, music, meditation, physical postures, symbolic ritual, deep emotions, devoted action, and so on, as the legitimate means of bringing the individual to self-realization. The two traditions reached their widest schism during the last two centuries when science developed general Laws and Theories which contradicted the teachings of a number of long established religions.

What is driving this change in the traditions of the "search"? Above all it is the threat to survival with which we are faced with rapidly increasing severity. Not surprising, we reject the science which mistakenly promised salvation by technology. It gave us, instead, the

means of extinction, either by attrition (environmental pollution, weakening agricultural balance, reduction of the human being into a statistic).

We also reject the religion whose past Messiahs seem to have left us to our doom, whose promised future Saviors are too long in coming. Most practices are dusty with age, without vitality or applicability to modern conditions. Simultaneously, more subtle forces are at work.

In recent years, science has begun to recognize that the biological organism is capable of numerous perceptual modes beyond the limits implied by classical five sense organs. For example, there is also another sensory-motor input in the 0.3-3.0 GHz region (microwave). It can overlay information directly onto the brain, with out going through any other sense. Several reports demonstrate that the terrestrial geomagnetic, solar-ionic, and cosmic energy fields are also primary in importance, transmitting information to the organism regarding its preferred behavior.

Scientific journals, devoting their pages to traditional scientific reports, now often include the verified observations of extra-sensory information transfer (such as telepathy, clairvoyance, ESP and magnetic energy transfer). It appears that the biological sensory apparatus is, in fact, normally capable of detecting all that the sophisticated equipments do when the information is within the energy levels of environmental conditions. Further, our sensory abilities may be developed beyond this point by rigorous training, much like we would to develop any above-average performance. The implication is that the supersensory perception which religions strive to offer, is also something science is just beginning to measure and verify.

A movement in religion (and mysticism) is beginning to break through the barrier of conservative non-adaptation. The original teachings of nearly every religion have suddenly become available. The disenchanted may now turn eclectic, free to develop in accordance with current conditions. Since our immediate environment is almost universally technological, the past religious traditions are seemingly pitted against the machinery of science. The efficacy of religious disciplines and the validity of "truths" arrived at by mystical experience are now being confirmed or denied by modern scientific technique. In some cases, we even find new means of bringing about the "religious experience" through modern chemistry, electronics, and psycho-therapy.

A new field of study, formed by the synthesis of these two traditions, is coming back into existence. It is an approach to contacting reality, utilizing major characteristics of both religion and science. Religion works with the essence of being, our awareness, our consciousness, the temporal development of man. Science, on the other hand, works with physical, supposedly non-conscious, forces and learns to manipulate these physically, with the aid of the intellect. Science works with the spatio-energetic development of man.

These forces permeate our conscious and unconscious being. They are not a separate, non-conscious field, but rather an expression of the consciousness that is evident in life. We also find that our universe cannot be dimensionally divided, but that all aspects are integrated into experience of being. The temporal, spatial, and energetic development of man is the continuity of a singular development of the cosmos. From this realization comes the "art"

of manipulating the conscious forces at will; the synthesis of scientific manipulation and religious experience of consciousness transformation.

This field of study, which is truly an art-form, has been known in its former incarnations as Magic, Sorcery, and Alchemy. It has recently been termed noetics, yoga science, and parapsychology.

The major point of integration between science and religion is sensory filtering; what we perceive, the how and why. The point of departure for crystallizing the synthesis into a viable, tangible form is temporal definition and time perception. Time is the most neglected concept in human nature. Science has mostly shied away from any direct confrontation of the role of time in mans assault on reality, being satisfied to use an accurate rhythmic instrument as the ultimate measure of the varied experience of time.

Religion has never before been called upon to enunciate its temporal awareness, its findings remain shrouded in formless intuition. The individual and social definitions, conceptions, and perceptions of time determines the sensory filtering and thus, also, the nature of the experience. Our recent temporal philosophy has been conducive to a perceptual mode and state of consciousness which is not in harmony with nature, and this reality. It filters out subtle and important information which we now classify as extra- or super-sensory. A temporal philosophy and accompanying methodology is now available, to bring harmony to our perceptual mode and widen its horizons to include, as normal, the extra- and super-sensory information.

A myriad of sensory information enters our sensory apparatus at the periphery. Only a small fraction of the data comes to us as conscious awareness of the world. Between the periphery and the brain, and between brain and mind, there are filters which reduce huge portions of sense input to background (white noise), leaving a foreground which is the minimum needed for survival. Recent experiments with developing kittens sheds light on the matter. The kittens were raised under one of three conditions. This first was a normal control situation, the second in an environment with only vertical visual stimuli, and the third was an environment of only horizontal visual stimuli. It was found that unlike the normal kittens, the kittens horizontally-trained were unable to perceive vertical objects. They would walk into chair legs, for example. The kittens vertically-trained were unable to perceive horizontal objects. They would never jump up onto a chair seat.

A detailed study of the neurological structure indicated that the kittens raised in a limited environment did not develop the synaptic pathways necessary for conveying the usual sense data. Thus, while the eyes worked normally, from the retina to the visual center there was an unbridged gap. Furthermore, this environmental restriction led to perceptual blocks when applied for only a few days during a critical period of development. Because the neural structure in humans is more complex, we expect a more readily adaptive mechanism to be in play. There is no doubt, however, that we perceive the world in the way we are conditioned. The sensory apparatus not only conveys information, they also filter it.

Classical examples of sensory filtering include the blocking of background music during an interesting conversation, the squeak of a noisy windshield wiper, and gestalt pictures which contain two or more scenes that the mind can see at one time, depending on specific details

to determine which picture becomes foreground and which becomes background. Any set of details could theoretically become foreground but we only become aware of those foregrounds that have some familiarity of form. A mother wakes to her baby's cry, while sleeping through other sounds of equal or greater volume. These are the gross expressions of the sensory filtering.

There are more subtle situations, particularly those regarding symbols, ideas, concepts, and interpretations where sensory filtering becomes important in ones sense of self and others (in the personal and social interaction), in ones approach to life according to that which is deemed possible and impossible. There is a closed circle in which our culture conditions our filters and our filters then effect our understanding of the world. This the determines the development of the culture. Total stagnation is only warded off by some unknown mechanism. It is somehow attuned to the fact that we must continue to perceive new and unexpected developments for the purpose of survival.

According to anthropological findings, early man lived in a world of Magic. The trend is cyclic and in going back to a perceptual and philosophic state of being, the control of conscious forces by man becomes paramount. That barrier may be seen as our temporal consciousness. During the past two centuries we have come to rely upon the clock and calendar as measures of time, dictators of a mundane reality. Where the ancients used astronomical indicators as tools to guide them, we have come to be ruled by these tools. We have lost freedom through the misguided enthusiasm for the success of science.

Our language still permits non-linear time concepts. Examples are time flies, or stands still, I don't have the time, could you spare some time, and so on. Our culture is unremitting in forcing conceptualizations of clock time as the only real time. Thus we often find that there are two kinds of time discussed; objective, physical, measurable, real, clock time; and subjective, mental, imaginary, sensory time. The former, being the real thing, manages to give some ultimate importance to the time units of seconds, minutes, and hours. This totally conquers the multi-leveled biological and geophysical clocktime rhythms. real time, as a measurable, in accordance with its scientific formulation, makes for a frozen past and an untouchable future. For in the same manner, the calendar and clock are allowed to dictate the possibility of perceiving or not perceiving certain events. All this in return for accurately predicting physical events and producing an apparently viable technology.

Consider the difference between a culture which counts time by the second and another, such as the Hopi Indian, while smallest time unit is the length of time required to boil rice. And the Buddhist, who knows that he has lived, will continue to live for as many lifetimes as "the number of times a bird carrying a silk kerchief would have to fly over the top of a mountain, to wear the mountain away by the friction of the cloth". What would be the foreground in each case, where would the focus of attention be? How would one structure a society with each of those time units in mind? Consider the difference in mental states of each person working with those temporal indicators. An American may reject an endeavor as "too long" were it to take six hours. The Hopi might find a three-week (725 rice boilings, or 3/4 moons) project minor. And, the Buddhist is already considering the effects of his activities on his next lifetime. This shows up in our relative spiritual depth, our quality of interaction with the environment, the presentation of man in the arts.

In Tibet, time is also measured in sixty years cycles, and this year is also zero, calendars being measured in years from now. Thus historical events occur within cycles and fade with age. This is to be compared with our conceptualization which keeps time moving linearly and away from the origin.

The effect on our sensory perception of such temporal conceptions is reflected in the various approaches to reality by these different cultures. The basic unit of time relates to our calmness or hyperactivity. Cultures which have come to live by the European clock become nervous overproducers. Individuals who leave the bonds of society gain relaxation and depth (hence the value of the vacation away from the clock).

The things we perceive are related to survival in those conditions. In a modern technologic society our perceptions center about measurable, physical entities, or numerically and analytically regarded abstractions.

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Quality is exchanged for quantity and frequency. Depth is exchanged for physical presence. Success is measured in terms of how much, how many, how often, how large, how fast...the gross attributes. The bigger the better.

In societies outside the clock-driven group, time is an expression of consciousness. Success is measured in subtle variations: The power of a single word, the beauty of a delicate and organic design, the meaning of a gesture, the fineness of detail. These are the extension beyond the temporal limits of the physical self. The foreground is the subtle but pervading pattern that is life.

We are in the temporal compression-chamber of the world's population/technology explosion. Our essential being, instead of extending through eternity, is seen as existing ephemerally. The present exists somewhere between the second just past and the second about to be ticked off. But this is a perceptual illusion. One is amazed to find that even today, with all the claims advanced by science, the organic being is rarely treated as a rhythmic, pulsing entity with its vibrations extending out infinitely through all directions of space and time.

When a doctor determines your state of physical health, it is a moments look at a harmonious orchestration of rhythms which will yield different results if studied again two hours later. The fact is, that the clock may indicate points of your multidimensional vibration, but you are not that point. Only your awareness is focused on that point and you are the integration of all the vibrations extending through time.

The past and the future, constructs of our physical brain, are not determined by the rhythmic clock but are perceived by the movement of concentration on the vibratory interaction. This can only be seen when the mind is freed of the bonds of current conceptual frameworks.

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b. 32nd Pathworking: The Personal Experience of Time (4)

Biological Time

Our exploration of personal time begins with the basic biological rhythms that humans share with other animals. Man's body temperature, blood pressure, respiration, pulse rate, blood sugar, hemoglobin and amino acid levels vary on a daily basis. The level of adrenal hormones and concentrations of bio-chemicals in the nervous system also vary on a daily basis.

Women are especially subject to monthly cycles of hormones which influence not only physiology but emotions, performance and dreaming as well. Seasonal changes occur in hormones, blood sugar and other important bodily functions. Annual cycles in calcium metabolism have been verified in humans. When we are healthy, these multiple cycles are well integrated and the result is a relatively stable system. These integrated cycles act as time keepers for our variations in energy, emotion, thought, dreams, and attitudes.

Our subjective awareness of time begins before language develops. Small babies show rhythmic behavior in the crib. Up to age nine, time seems to be expanded and changing slowly. Children do not have the ability to order events and classify them as adults do. Physiological rate could influence our perception of time and duration. Metabolic changes might alter time awareness. Temperature changes have been shown to alter time estimation. There are many factors which must influence our awareness of time.

Biologically, time is determined by external factors such as the rotation of the earth, the orbiting of the moon and the seasons of the sun. Internal factors include cyclic systems of various blood chemicals and tissue groups. There must be internal and external sensors that connect us to biological time, inherent biological clocks. The oscillating internal systems are usually synchronized to a high degree and thus provide a biological time base which is tuned to the changing external cycles of the astronomical clocks. Age is an important factor in setting the rate of the biological rhythms and influencing time experience.

Subjective Time

Great confusion has resulted from considering time experience as a sensory process. An "organ" of time perception has been the object of much research. Such an organ could register any of several internal processes as the basis of time sensation. The problem with a sensory process model is that there are so many different biological clocks and astronomical clocks which are so closely interlocked that no single "clock" could emerge to be the "time keeper."

A better model is the "input register" cognitive theory. This theory holds that the experience of a brief interval is based upon the amount of information processed in that interval. This theory works well for the brief interval but encounters problems when longer durations are considered. A related cognitive information left in storage following the interval. Thus experiences of duration need only be related to other duration experiences and not derived from any "clock", internal or external.

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Duration experience is dependent upon the amount of information processed and the manner in which that information is coded and stored. Brain specialists say that much of the cognitive power of the human brain lies in its ability to code and re-encode its own contents. Theoreticians in the information field speak about the possibility of refining codes until they reach a limit. At that limit, an optimal code is found that permits the processing of an infinite amount of information in an instant. The subjective experience of such an optimal coding would be of time standing still as understanding expanded to total comprehension. The mystics refer to this condition as "Realization."

Further research has shown that the manner in which information is passed, coded and stored is critical for duration experience. If an experience can be easily broken into chunks with familiar labels, that experience appears to be short. If experience is novel, then it can't be easily and simply coded and it seems to be longer. Routine activities such as driving to work are difficult to recall because the code is established in terms of a few broad categories such as "starting the car", "driving downtown", and "parking". On the other hand, if an accident occurs on the way, the novelty forces the use of an unfamiliar code which makes the experience seem much longer than it actually was. The possibility also exists for recording an experience after the fact. Following the accident, the interval could be recorded under the new label of just "the accident" so that as time passes, that experience seems to shrink in memory. The storage size and coding theory can cover the widest range of experimental data and for the time being looks like the best explanation of duration experience and its many facets.

On the subjective level, time is determined by our expectations, memories and our familiar patterns of thought. Our conceptual framework determines how we categorize experience, both immediately and in memory, and this determines our experience of duration. This overlaps the non-conceptual influences of the many internal biological rhythms and the external astronomical cycles. Conceptual sophistication is a function of age and education, both of which will play a large role in shaping duration experience.

Personality and Time

Personality exerts influence on the personal experience of time. Emotional people (FEELING TYPE) see time as continuous and circular because the present evokes the past which gives meaning to the present. The present is always being compared to past events so that the emotional content will be revealed. The length of an experience is less important than the intensity of the emotion connected with the experience. In general, time is less important to emotional people than emotion.

Intellectual individuals (THINKING TYPE) also see time as continuous, but linear rather than circular. The past gives rise to the present which in turn gives birth to the future in orderly succession. The present is always being tested against the ongoing process to insure orderly evolution. The significance of an experience in terms of developmental patterns is more important than the length or the emotional content. In general, time is less important than orderly processes and clear principles of behavior. The orderly flow of time is more important than past, present, or future.

People who are primarily oriented toward the senses (SENSATION TYPE) see time as discontinuous and momentary as the march of events pass, each independent and complete in itself. The moment arises and having been experienced is replaced by a new fresh moment to be experienced. Each moment is weighed for its content in terms of concrete physical reality and physical activity. The importance of each moment depends upon the intensity of sensation and action as well as the gratification achieved. Duration is not experienced as such by the sensory types. Time is less important than the intensity of immediate experience. Past and future are unimportant when compared to the present.

Intuitive individuals (INTUITIVE TYPES) also see time as discontinuous but experience possibilities as being more real than the present moment. The future is glimpsed and then the present is manipulated toward that vision. The present is evaluated in terms of its importance in the realization of a particular future. The importance of an experience lies in the possibilities which are suggested and/or fulfilled by it. Time is less important than inspiration and bright visions of possible futures. The future is more important than the past or present.

There is a natural progression through this system of psychotypes which is a function of age and personal maturity. Very young children tend to be sensual in orientation and concern themselves with the present. Adolescents exercise their intuition and enjoy bright visions of interesting futures. Mature adults are expected to be balanced in their time perspective and to use hindsight as well as foresight in order to carry out necessary plans and processes. Old people are usually oriented toward the past and emotional in their involvement with traditions and memories. A few individuals do not follow this development. A great deal of conflict between different age groups can be traced back to these differences in time perspective and psychotype.

Hypnosis and Time Experiments

Experiments with hypnotism have revealed some interesting aspects of personal time dilation and contraction. The past, present, and future were each expanded and contracted by hypnotic suggestion. When the past was eliminated, the subject became confused and irritable. There was a loss of inhibition and a loss of differentiation of meaning. Time estimates were shorter than actual clock time. When the past was expanded, the subject reported being happy. He became single minded about his interests and was abrupt and difficult when disturbed.

When the present was eliminated, the subject lapsed into a rigid trance. He would not respond to stimuli. He later reported being aware but unable to respond to anything. He said that it was very unpleasant and seemed as if he were dead. When the present was expanded, the subject experienced a mood of great luminosity. He became very interested in lines and his problems became less important.

When the future was eliminated, the subject entered a euphoric, semi-mystical state. Everything seemed to occupy a boundless present. He was free of any anxiety and spent his time savoring his immediate experiences. He was very interested in colors and textures. When the future was expanded, the subject experienced a happy, mystical condition. He

felt that he had plenty of time to do everything. Deadlines became unimportant and he said that death just became the end of life and was no longer an event to be feared.

When both past and future were eliminated, the subject entered into a trance state very similar to the no-present condition. He later reported the feeling of being a machine, unable to feel and respond. Simultaneous expansion of past and future caused the subject to become very introspective and review his past and future direction. He said that he felt more like a philosopher than he ever had.

When both the past and present were expanded, the subject entered a happy state. He became intensely interested in the origin and developmental history of things. Expansion of present and future caused another happy, mystical condition. He said that by integrating present and future, he had triumphed over death. He became restless and hyperactive and began to play practical jokes and became very infantile.

These hypnosis experiments illustrate the importance of our attitudes and beliefs toward time. The past, present and future seem to co-exist in our minds and our attitudes about each influence our experience of time and life in general at a particular moment. The hypnosis can be seen as simulation of critical events which alter our beliefs and attitudes. A profound challenge toward our past beliefs or our view of future potential could have the effect of contracting the past or future. A sudden realization about the past or a bright new vision of the future could have an expansion effect.

In general, critical events can expand or contract the past, present and/or the future to produce profound alterations in a person's attitudes and general behavior. The critical process of aging will automatically expand and contract the past and future. The young have small pasts and large futures, the mature have a balance and the old have large pasts and small futures. This fact may help account for the general behavioral differences among age groups.

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c. Life Extension Practices (Aging, Rejuvenation, and Immortality)

In our youth-oriented culture, "old age" is approached with trepidation, and staved off with heroic attempts at maintaining physical fitness. The anxiety and stress of daily living gradually convert into attitudes of depression and despair over waning physical and mental abilities.

The very powerful cultural group between the ages of fifty-five and seventy is not only healthier, but more affluent and better educated than any comparable group in the past. The field of Geriatrics has responded to the need of this group for improved quality of life. Since aging begins with the Saturn Return at approximately age 30, the benefits of this research are useful to the general populace.

Legends of the Fountain of Youth, Immortality, Alchemy and modern Geriatrics have a common denominator: the quest for longevity. Longevity has various implications in the four planes of existence. These include 1) spiritual immortality of the soul after physical death, 2) maintenance of mental acuity and learning ability, 3) fantasies of eternal youth

and their emotional content, and 4) a high degree of physical fitness throughout a long lifespan.

1. Spiritual Immortality, in Alchemy, is the result of the rejuvenating effects of the Elixir. This Elixir is most often described in old alchemical texts as an herbo-metallic preparation. Many of them speak of various forms of preparations containing Mercury. It is difficult to see how these could have any salutary effect, considering Mercury's poisonous capability.

The actual rejuvenation effects of the Elixir were more likely psychological effects resulting from the production of the Philosopher's Stone. This Stone is the alchemical symbol for contact with the higher Self, one's wholeness. The Self archetype brings its characteristic sense of the overcoming or transcending of the limitations of time. The Elixir is the flow of transpersonal energies into the personal life, revitalizing the entire being. The Elixir is the liquid form of the Philosopher's Stone.

For an interesting insight into the birth of herbal medicine, imagine the old crones and wizened men who combed the forests and glens. These oldsters were beyond their productive years, and when the local culture was unable to support them, they were thrown back on their own resources. Many had to forage for long hours every day just to grub enough nourishment to sustain life. Therefore, they sought not only for cures to their ills, but for tonics, stimulants, and energizers to lighten the burden of their work, and restore a sense of youthful vigor. Thus, we hear of the revitalizing properties of soma, in alchemical lore. Some of these traditional energizers include gotu kola, ginseng, ephedra (or Mormon Tea), coca, and fo-ti-tieng.

In any viewpoint short of full immortality, aging seems inevitable. There are, however, programs and practices which can slow down, and in some cases even reverse the aging process.

Aging is a complex process which involves the gradually decline of various systems of orderly management or homeostasis in the body. Among these are breakdowns in the auto-immune system, faulty replication of DNA, oxidation of fats in the body producing toxins, cross-linking of molecules aging the skin, arteries and other tissues, the decline of the brain's chemical messengers, accumulation of wastes, hormone imbalance, lack of ability to repair damage.

2. Mental Acuity. Senility is a disease, not the inevitable mental condition in old age. It has many causes and degrees of severity, but many of these may be relieved or prevented with nutritional or drug therapy. Of primary importance is the production of neurotransmitters which allow the brain cells to communicate effectively with one another, increasing access to stored information. The major neurotransmitters are norepinephrine, acetylcholine, dopamine. When there are inadequate amounts of these in the brain, the result is depression, apathy, and ennui. Another major factor in decreased mental ability results from the breaking of fine, hair-like connections between brain cells, known as neurites. With these factors in mind, we may outline a program for rejuvenation of brain function, including the following:

Hydergine stimulates the regrowth of connections between nerve cells which are necessary for learning and recall. In this way, it improves both alertness (R.A.S.) and high-level cognitive functions (cerebral cortex). The brain's intricate function depends on interactions at critical junctions between cells called synapses. These nerve junctions are in a fine network of fibers on the branching axons. According to the holographic paradigm of memory storage and retrieval, the more cells you bring together the more detailed the information. Therefore, as this drug takes effect, overall memory improves; not everything will be immediately accessible to recall, but more detail is possible to recover.

Vasopressin is a pituitary gland hormone which is marketed under the tradename Diapid, in a nasal spray. It also improves memory and learning ability. It is a proven treatment for amnesia. During trauma, it may be released in massive doses from the pituitary gland, initiating that flood of imagery where one's life flashes before the eyes. Marijuana use suppresses the release of pituitary vasopressin, and cocaine use stimulates it (but also results in a depressing bloodpressure, reaction time, coordination, and visualization. Aging cuts down the amount of vasopressin secretion. Earl Hunt (1983) recounts the results of experiments:

We also tested university alumni. A previous experiment had shown that in this educated population, visualization abilities decline with age, beginning in the 30's. Only half of the participants over 40 could adopt the imaging strategy. (6)

An effective clinical dose for improving memory is 16 I.U. per day, 4x nasally. There is no deleterious effect on bloodpressure or urine retention at this dose. With its direct relationship to visualization ability, this might prove of particular interest to artists, engineers, and other who require this in their work. It is certainly required in the practice of magickal ceremony, where the maintaining of the visualization is critical in the effectiveness of the rite.

Choline is an important nutritional factor as it is a precursor to acetylcholine. Its inclusion in the daily supplements insures the availability of the proper components for the body to synthesize this important neurotransmitter. It is required for muscular control and proper muscle tone. Choline is most effective combined with lecithin and Vitamin B-5 for easy conversion.

Phenylalanine is an essential amino acid which our brains use to synthesize Norepinephrine (also called noradreneline). It relieves the depression or "drained" feeling occurring when levels of this neurotransmitter are low. Depleted NE reserves are responsible for mental fatigue or lack of concentration. NE may be replaced at the synapse junction through doses of 100 to 1,000 milligrams per day of phenylalanine combined with Vitamins C and B-6.

Do not combine this treatment with MAO inhibiting drugs used for depression treatment.

MAO inhibitors are used to treat depression because starting at age 45, MAO levels tend to rise, and this destroys NE reserves resulting in depression. It is precisely this MAO imbalance which produces the apathy of old age, including anxiety, depression, and less of interest in life's activities. this produces a shortage of norepinephrine and other neurotransmitters, especially in the hindbrain, attacking the quality of one's experience of

"being alive". Tricyclic compounds prevent this condition by stopping the deamination of catecholamines in the brain and at the nerve synapse. Anyone using these anti-depressants must avoid alcohol, amphetamines, and certain foods. Depression and anxiety stress the body and accelerate the aging process.

Serotonin is a companion to NE in the regulation of the experience of pain and pleasure. The overproduction of serotonin is linked to hyperactivity, then exhaustion, anxiety and depression. Irritation by serotonin can also lead to overproduction of histamines, adrenaline and noradrenaline. When the exhausted system can no longer produce hormones to control normal functioning, a state of exhaustion ensues much like the "come down" from long term abuse of stimulant drugs. Serotonin irritation also overstimulates the thyroid.

3. Emotional Life. Fantasies of eternal youth are associated with the puer complex and one's attitudes toward aging. One of the most commonly accepted means of maintaining a zest for life comes from the vital connection existing between grandparents and grandchildren. They offer a symbiotic reinforcement system for one another, stretching from past to future with a sure continuity. there are several roles which grandparents fulfill including providing the youngsters with an emotional history. The child is an oracular vision of one's futurity.

a. Historian

--oral history of the cultural past

--family historian; link to dead relatives

--ethnic heritage; reenact rituals of the past in present

--religious faith and values

b. Mentor

--emotional attachment fixes lessons in mind

--lifetime of experience

--working with life's basics (food, clothing, shelter, transportation)

--deepen sexual identity

--instill pride in a job well done

c. Role Model

--provide a model for grandparenting

--role model for aging; adjustment to old age, and death itself

--elders embody the last stage of life

--attitudes, moral ideals, talents and behavior of the family

d. Wizard

--has lived a long time and learned to expect the unexpected

--has no "real" power yet makes the seemingly impossible happen

--accesses mystical dimension of life where dreams come true

e. Nurturer

--most basic role, physical and emotional

--Great parents are primary caretakers when parents are absent

An emotional sense of value and well being is maintained throughout the lifespan when an individual has a meaningful position within the family. This sense of purpose and belonging eliminates loneliness and depression which accelerate the aging process. One experiences immortality in the continuity of family life.

4. Physical fitness for long life includes a nutritional program started early in life to maintain systems, rather than a crash program for repair of damage. For life extension, a consistent program including mega-vitamin doses, antioxidants, RNA and DNA supplements, and minerals is recommended.

A new therapeutic treatment is Gerovital or GH-3, which reestablishes a balanced functioning, or homeostasis, in the body systems. It is a form of procaine, which is composed of the B vitamin PABA and diethylaminoethanol (DEAE). It is useful in the treatment of anxiety and depression, without the limitations imposed by an MAO inhibitor. Its anesthetic qualities make it desirable for use by those with chronic pain, such as that from arthritis. Gerovital's ingredient DEAE acts as a mood elevator, as do vasopressin, and Hydergine, providing a synergetic "tonic" or energizing effect of rejuvenation.

Further Reading:

1. Durk Pearson and Sandy Shaw, Life Extension; A Practical Scientific Approach, (Warner Books, N.Y., 1982).

2. John A. Mann, Secrets of Life Extension, (Bantam Books, N.Y., 1982).

3. Herbert Baily, GH3, (Bantam Books, N.Y., 1977).

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INSERT PICTURE

FOOTNOTES

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2. Alexander Ruperti, *Cycles of Becoming*; CRCS Publications, Davis, CA.; 1978, p. 27.

3. M. Esther Harding, "The Value and Meaning of Depression" *Bulletin for the A.P.C. of N.Y.*; (Analytical Psychology Club of N.Y., Inc., 1970); p. 10.

4. *Ibid.*, p. 13

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YESOD

Title: Yesod, the Foundation

Magical Image: A strong, naked beautiful man

Position on the Tree: One sphere up from the base on the Middle Pillar.

Yetziratic Text: *The Ninth Sephirah is called the Pure Intelligence because it purifies the Emanations. It proves and corrects the designing of their representations, and disposes the unity with which they are designed without diminution or division.*

God-Name: Shaddai el Chai

Archangel: Gabriel

Order of Angels: Kerubim

Planetary Ruler: the Moon

Spiritual Experience: Vision of the Machinery of the Universe

Virtue: Independence

Vice: Idleness

Microcosm Correspondence: Reproductive Organs

Symbols: Perfumes, Sandals

Tarot Cards: The four Nines

Color: Violet

Magical Weapon: The Chalice or Cup



"Archangel Gabriel," c1974

Introduction to Yesod

One of the main tasks of Yesod, Sphere of the Moon, is to acquire a firm foundation in Qabalistic theory before beginning any actual practice. Yesod is the automated consciousness or habit mind which is also sometimes called the Vital Soul, or realm of instincts.

In physics, this astral dynamism is known as electromagnetic fields, the force which lies behind and patterns all forms. Thus, the subconscious underlies and directs our mundane awareness in an analogous way to that in which EM fields are the subtle basis of matter. Behavior precipitates, as it were, from hidden subconscious dynamics. We can raise much of this unconscious motivation to awareness.

Magical tradition asserts that the human faculty of imagination is capable of creating impressions in the astral substance which guide and direct subsequent manifestation. In modern language, creative visualization or dwelling on a thought consciously or subconsciously, increases the chance of altering EM field patterns.

This is neither objective nor subjective, since the wave fronts involved operate both externally in the environment and internally in the organ of perception, the CNS. Therefore, magical exercises, carried out properly, are designed to establish and strengthen specific EM field patterns (or archetypes) with great clarity in the consciousness of the practitioner. (Ref. Netzach on EM Fields & the Astral).

Misuse of imagination has created chaos, error, and confusion in the collective consciousness. Generations of wrong thinking have left a groove in the cultural mind, which manifests mostly as emotional fragmentation or misplaced zeal. Imagination is an essentially spiritual power whose expression has been distorted.

In Yesod we seek to reestablish emotional balance and control of responses and reactions which are usually below our threshold of awareness. At Yesod, this applies particularly to the channelling of intense reproductive urges. We seek connection with the uplifting aspects of sexual energy, rather than its animalistic expression which might sap our vitality.

This vitality is presented in the magical image of the sphere. But here it represents the power of regeneration of the inner person. The force works through the nervous system and interior centers. In yoga these centers are called chakras, and the Serpent Fire or Kundalini represents the dynamics of ascending consciousness.

This energy goes by many names including prana and chi. It can be channelled by visualization.

Yesod work helps us hone and correct our creative visualization capacity. If our mental images are improperly formulated, disharmony results. Pain is an emotional signal which helps us correct our attitudes and images of our goals. Yesod is the center of the formative world before it crystallizes into manifestation.

But we must not only work against our own lower impulses (shadow), but those of the collective (Adversary). Focusing on right application of our self-conscious image-making faculty, we can release old blocks or habit patterns. Hypnotherapy may be helpful in this process. Old destructive habits are easily given up when better solutions are internalized and become part of your new self-image. At first it takes conscious effort to divert the flow into the new channels of reaction. But soon constructive new habits become the norm.

Yesod is the realm of instincts. After purifying the body comes the work of purifying the psyche. It means becoming aware of one's shadow and responses that are not in harmony with the goals of the Higher Self. It doesn't mean suppressing emotions, because bottled up feelings explode like a pressure-cooker. We create a channel for the liberating powers of the Self, which facilitates our natural, organic growth.

The higher Self can use the power of suggestion to influence the subconscious. It prepares the instinctual level for the transpersonal influx or transmutation. This mainly has to do with "original pain" work, healing misperceptions, faulty self-images, and emotional wounds or complexes--changing our "script." We all hate to give up our habits, and this means the pain of overcoming resistance to change.

Patterns in our beliefs, thoughts, emotions, and behavior are deeply conditioned by the subconscious and the early development in our personality of script decisions, scripts, rackets, and games, such as "No Joy," or "No Love." If most of your thoughts about yourself counteract your higher mind ideals, then progress will be very slow. This is where therapy may help you clear out some old baggage. Then your ideals can be incorporated into your foundation, your new image.

This new self image must be frequently reinforced by images of success. If you find yourself thinking negative thoughts about yourself or the world, just tell yourself to Stop!, and change the program--divert your attention, change the self-talk.

Yesod contains the patterns of all possible forms and metaphors. The astral plane includes but extends beyond the physical plane. Certain simple geometrical figures can be discovered through nature and the psyche. These archetypal forms include the cross, the square, the circle, the regular polygons, etc. Their proportions contain representations of the dynamic forces in the universe. They are the virtual underpinnings of sound vibration, light and color, gravitation and electromagnetism. These properties are the formative blueprints of everything which comes into physical being.

They are expressions of the One in the Many like the Jungian archetypes. These basic ideas and symbols of the collective unconscious also express the One in the Many. When God commanded "Let there be Light," He also meant in the panoply of our thoughts and imagination. And in the virtual reality of the astral, thoughts and feelings have the same concrete reality as a material object or experience. That is why hypnotherapy works tangible results in people through their inner journeys. When the imagery changes, so do the attitudes associated with it.

For the magician, the astral light is his medium to be influenced and formed through concentrated imagination and will. Even the most tenuous ideas influence it, and concentrated focused energy sets the formative forces in motion. The Collective Memory is its other function as the repository of all existence and experience.

John Gowan (1975) describes the three major modes of consciousness (or contact between the individual ego and the divine) as Trance, Art, and Creativity. Each state has particular characteristics which correspond precisely with Tree of Life modelling.

a) Yesod = Trance state = prototaxic mode, characterized by loss or overwhelming of ego; signs, psychomotor phenomena, subconscious ideomotor responses in therapy and divination. Most people live in a trance state called "ordinary consciousness," or consensus reality. They rarely get out of that trance. Shamanic states and trance dancing are other examples. Any constant, repetitive signal to the central nervous system will induce a trance state of varying depths. Cultural expectations give permission to act on impulses originating in that state which may seem to originate "outside" oneself (such as possession by Loas in Voodoo).

b) Path 25, Trump XIV, ART = Art = parataxic mode, characterized by the production of images whose meaning is not clear or categorical; personal or idiosyncratic use of symbols and imagery; affective images. Metaphors are produced when the mind imposes its own structure on its perception of the universe. A characteristically "lunar" consciousness, which shifts to the Solar consciousness of

c). Tiphareth = Creativity = syntactic mode, where meaning is more or less fully cognized symbolically, with the ego fully present; cognitive symbols. This stage includes such diverse experiences as nature mysticism, tantric sex, visualization, alpha feedback, meditation, peak experiences and higher jhana states. Also germane is an Orientation System. The Causal level. Creativity is the result of the harmonizing of lunar and solar elements.

YETZIRAH, the Emotional Plane

The common name for this plane of awareness is the Astral Plane or Astral Light. It is synonymous with the alchemical idea of the *Anima Mundi*, or Soul of the World. The Jungian idea of the Collective Unconscious as the treasurehouse of fluctuating imagery is a modern explanation for the experience of this phenomena. Theoretically, all experiences are available for downloading from this archive. This might be the source of past life memories, the so-called Akashic Record.

The Astral Light is also perceived behind the phenomenon of EM fields and their effects in patterning physical manifestations.

"The Astral Light is an omnipresent and all-permeating fluid or medium of extremely subtle matter; substance in a highly tenuous state, electric and magnetic in constitution, which is the model upon which the physical world is built. It is the endless, changeless, ebb and flow of the world's forces that, in the last resort, guarantee the stability of the world and provides its foundation. Yesod is this stable foundation, this changeless ebb and flow of astral forces, and the universal reproductive power in nature." (Regardie, 1970).

There are two distinct divisions into a Lower Astral and Higher Astral Plane. The Lower Astral includes the grossest manifestations of contact with the divine through instincts and uncontrollable psychomotor phenomena influencing the body. The Higher Astral is the plane of images and affects, including emotional response.

The lower astral is characterized by dissociation and loss or absence of memory and ego functions typical of trance states. The higher astral includes the first attempts to implement the will in a relationship with the subconscious forces. This is the arena of shamanic healing and hypnotherapy, where trance is utilized to reprogram dis-ease. In the Astral Plane, archetypes are perceived in images or mind-pictures; often this means only a vague awareness or foreboding or a visceral reaction. They can also appear as psychic impressions.

The astral is also the realm of dream and divination. It is the Lunar plane of psychism and mediums. The Astral Body is the vehicle for exploration or travel in this plane. Here, both godforms and matter (*Maya*) are visible. The Astral Plane influences the body through the parasympathetic nervous system or the Central Nervous System. Its negative effects include over-emotionalism.

Psychological reflection in this plane leads to the acquisition of reliable information concerning self-knowledge. All other experience here, especially for purely personal gain, is to be discouraged.

Yesod as the Prototaxic Mode of Awareness:

The properties of various trance states vary depending on a number of factors: whether ego is totally absent or partially present; whether there is any memory of the experiences; whether there is a negative or positive personal and social value; whether the experience was sought or induced, considered and illness, therapy, grace, or divine; whether there are physical symptoms, and whether or not the trance state was learned or conditioned, such as by trauma (PTSD).

The prototaxic mode, trance, is an archaic mode of primitive consciousness. In ancient times it probably helped us overcome extreme pain and fatigue, and shamanic trance was among the first religious impulses of man. Trance involves the body in automatic, somatic, and kinesthetic behavior. It is characterized by dissociation, awe, dread, horror, and panic. There may be sensations of extreme heaviness or floating. Trance includes such phenomenal experiences as possession, mediumship, hypnosis, guided visualization, channelling, astral projection, psychedelic drug experience, and paranormal aspects including ESP. Its range extends from the extreme dissociation of schizophrenia to the religious ecstasy of mystics and the magical flight of shamans. At the lower end of the prototaxic scale, ego control is weak or absent, and there is a general amnesia regarding experiences in the trance state. Though the trance state produces some intriguing paranormal effects, it is the grossest form of contact with the divine powers of the subconscious. It has an uncanny, sometimes awesome quality.

Through a taxonomy of these manifestations we may establish the relative value of these altered states of consciousness:

1. Dissociations:

Schizophrenia (total dissociation from daily life) is the grossest form of trance, and forms a compulsively consuming virtual reality with total immersion. The script here is "No Exit."

Panic reactions, including mob contagion; terrifying sense of peril; guilt or sense of personal responsibility; disturbed erotic involvement or socially unsanctioned sex life. Script is "No Joy."

Positive disintegration (regression in the service of transcendence) is the necessary dissolution of the old self image and programming preceding enlightenment. As a mental illness, it is characteristic of shamans, psychologists and other cases of the "wounded-healer" archetype.

Hysteria including hyperarousal and psychosomatic conversion-reactions, such as skin disorders, free-floating aches and pains, hypochondria, etc.

Unstressing is a behavior outlet for the psychic tension accruing from the confrontation with the powers of the Collective Unconscious. Occurs spontaneously in therapy, meditation, and religious trance. Includes "talking in tongues," dancing, shaking, motor automatisms (spasms, gasps, twitches, jerking, weeping, laughter, headaches, etc.).

2. Trance States

Sleep, where images are profuse, but the ego/will is absent;

Possession, where the individual ego is usurped by a malevolent demon or spirit;

Mediumistic trance is a form of possession where a benign, dead, or ascended spirit controls and dominates the individual ego;

Group trance dance, such as practiced by American Indians and at Raves, Sufis, and Voodoo are also form of possession, with paranormal manifestations.

Other temporary restructuring of reality orientations come through:

Psychedelic Drugs, which provide vivid imaginal "trips" which the ego has difficulty recalling and integrating meaningfully. Can mean developmental forcing and rupture.

Sensory deprivation produces hallucinations and disorientation as the external input ceases and only the inner world plays out centerstage.

Hypnosis and Self-Hypnosis produce four classic depths of trance for therapeutic benefit.

Shamanic trance is a high form of prototaxic operation. The sorcerer's mission is to influence the environment by magic. He is not possessed by spirits but controls them. He retains his memory of magical flights or out-of-body experiences. He receives and remembers instructions from dreams, and because of his own wounding and recovery has the ability to heal.

Magical trance is the prototaxic form of Lunar magic. It uses psychic powers for personal interests. Its parataxic mode form is ritual; its syntactic activity is visualization.

3. Paranormal Aspects:

ESP (telepathy, clairvoyance, precognition, psychometry);

Hallucinations;

Anesthesia of pain and healing;

Fire-walking and other mastery over fire;

Psychokinesis and poltergeist phenomena;

Out-of-body (OOB) experience, magical flight, and astral projection;

Automatic writing or "channelling;"

Psychic Surgery.

4. Higher trance; religious trance, theophanies or mystical experiences.

This is the upper border of the lower astral realm. It marks increased freedom from psychic contagion and superstition. Subconscious beliefs make many phenomena work on others--expectations are crucial and we are vulnerable at the most fundamental level.

At this juncture, consciousness shifts modes of awareness, making a quantum leap to the Parataxic Mode known as ART. This is the realm of METAPHORMS: archetypes, dreams, ritual, myth, art, ceremonial. It is an expression of the "We Are" consciousness of the collective psyche. There is general increase in conscious participation, memory, and movement from awe and dread toward pleasure as tensions are released in creative activity. Frequently these include ritual (ceremonial) or the production of a socially recognizable work of art with collective value.

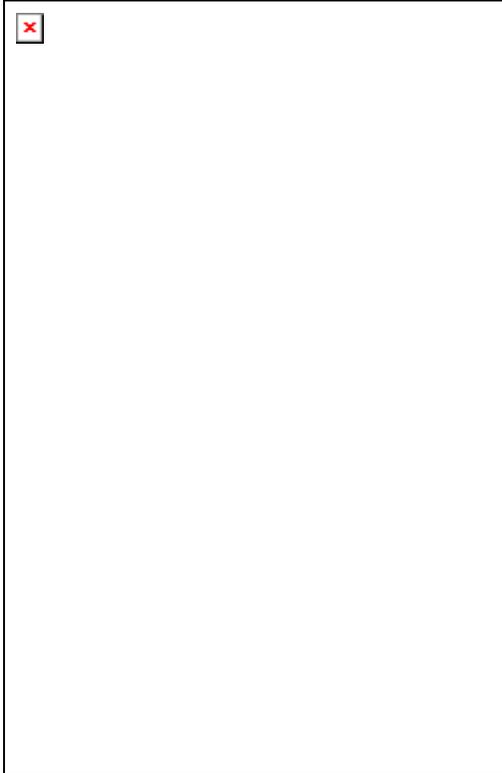
Further progress on this continuum leads to increased cognitive awareness. Visualization ability is consciously cultivated, and a form of psychic "map" is adopted, such as the qabalistic Tree of Life. Increasing self-realization leads to the desire to meditate, seeking higher experiences of human fulfillment.

The Syntactic Mode means the ego cooperates with the inner processes enough to remain fully conscious and in an Ordinary State of Consciousness. It voluntarily subordinates itself to the transpersonal energy of the divine. It surrenders to engaging in the paradoxical overthrow of itself, in favor of a greater whole.

THE HOLISTIC QABALAH: A Contemporary Guide to Magick
by Philo Stone (aka Richard and Iona Miller), 1983

BOOK III

Sphere 9: YESOD, the Moon



YESOD: Table of Contents

PART II. YETZIRAH, THE ASTRAL OR EMOTIONAL PLANE

BOOK III: YESOD, The Sphere of the Moon

1. PHILOSOPHY

- a. Initiation: Zelator**
- b. Ritual: The Value of Dreamwork**
- c. Practical QBL: The Body of Light, Part 1; The Astral Body**

2. PSYCHOLOGY

- a. Psychological Model: Mythical Living, Metaphorical Perception**
- b. Archetypal Encounter: Lunar (or Feminine) Consciousness**

- (1) The Great Mother and Virgin Goddesses (Moon Magick)**
- (2) The Syzygy: Anima and Animus**

3. ASTROLOGY & ALCHEMY

- a. Secondary Progressions for Each Year of Life**
- b. The Moon and the Luration Cycle in Astrology**
- c. Luna and the Albedo in Alchemy**

4. ORIENTATION & EXERCISE

- a. Some Thoughts on the Phenomena of Astral Projection**
- b. Seasonal Timing and Tides (Equinoxes and Solstices)**

BOOK III: YESOD, The Sphere of the Moon

	INTRODUCTION
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Yesod is the lunar world of the Great Mother, the Goddess in all her multitudinous forms. The Moon exemplifies the notion of dynamic equilibrium; it builds a firm foundation of stability based on cyclic change. This ebb and flow is characteristics of the Feminine Ms.teries and Lunar Magic. Emotional-sexual sphere.

The Moon of Yesod symbolizes fertility of body, soul, mind, and imagination. Its manifestations range from reflective and purely automatic impulses of generation to providing a source of inspiration. This fluctuating world of shape-shifting forms is known in mythology as ISIS, the Great Mother who contains all other goddesses. She represents the archetypal virginity of the feminine aspect of Godhead, its all-encompassing receptivity.

The characteristic experience of Yesod or the lower astral plane is a trance state of varying depth. Most commonly, ego, memory and control are weak or absent. There is dissociation from an Ordinary State of Consciousness. If memory of the imagery experience is retained, it may be misinterpreted or distorted, resulting in no effective assimilation into daily life.

Receptivity is the keyword for Yesod, which in the Four Worlds is represented by the following:

1. Physical Plane: In the phenomenal world Yesod is characterized as the electromagnetic fields, known by physicists to be the formative basis of matter. In the human body, the genitals represent Yesod. Instincts act on the body producing psychomotor automatism, or the automatic gut-feel responses. Astrologically, Yesod is the Moon or Luna. Gareth Knight links Pan to Yesod stating that "Pan gives the idea of archetypal strength which is characteristic of the etheric and of the action of the Moon on Earth." Pan's appearance here also indicates his other manifestations including panic reactions, nightmare, guilt, and disturbed erotic involvement. Hyperarousal.

2. Astral Plane: At this level one can tap the reservoir of life-force or pranic energy. Kundalini is a physical manifestation of the astral form of Yesod. The therapeutic practice of Bioenergetics resolves repression and traumas releasing vitality. This level of lunar consciousness includes one's personal reactions to the complex environment. Yesod is a sphere of personal awareness. The personality is a unique complex of emotions and thoughts. This is the level of Moon Magic (i.e. Wicca). It provides no access past the Astral Plane. Its negative effects include overemotionalism or reactivity.

3. Causal Plane: From the psychological perspective, Yesod is the realm of Imagination and Archetypes. One may experience it through Trance or various Art forms. There is understanding of the contrasexual aspect of the anima and animus. There is release from possession and enhanced control of emotions through employing the imaginative technique of personification of divine forces.

4. Archetypal Plane: On the highest level, Yesod manifests as dream experiences and fascination. This is the level of oracular prophecy.

INSERT PICTURE

One of the main tasks of Yesod, sphere of the Moon, is to acquire a firm foundation in Qabalistic theory before beginning any actual practice. Yesod is the automated

consciousness or habit mind which is also sometimes called the Vital Soul, or realm of instincts. In physics, this astral dynamism is known as electromagnetic fields, the force which lies behind and patterns all forms. Thus, the subconscious underlies and directs our mundane awareness in an analogous way to that in which EM fields are the subtle basis of matter. Behavior precipitates, as it were, from hidden subconscious dynamics. We can raise much of this unconscious motivation to awareness.

Magical tradition asserts that the human faculty of imagination is capable of creating impressions in the astral substance which guide and direct subsequent manifestation. In more modern parlance, creative visualization or dwelling subconsciously on something repeatedly, increases the chance of altering EM field patterns. This is neither objective nor subjective, since the wave fronts involved operate both externally in the environment and internally in the organ of perception, the CNS. Therefore, magical exercises, carried out properly, are designed to establish and strengthen specific EM field patterns (or archetypes) with great clarity in the consciousness of the practitioner. (Ref. EM Fields and Their Relation to the Astral, in Holistic Qabalah, Netzach).

Misuse of imagination has created chaos, error, and confusion in the collective consciousness. Generations of wrong thinking have left a groove on the cultural mind, which manifests mostly as emotional fragmentation or misplaced zeal. Imagination is an essentially spiritual power whose expression has been distorted. In Yesod we seek to reestablish emotional balance and control of responses and reactions which are usually below our threshold of awareness. At Yesod, this applies particularly to the channeling of the intense reproductive urge. We seek connection with the uplifting aspects of sexual energy, rather than its animalistic expression.

"The phallic symbolism evident in the Magical Image of Yesod (Ithyphallic Youth) needs to be understood as referring to the reproductive energy as it expresses throughout all levels of life. The regeneration attributed to this energy in man never refers to the external organs, but to the interior nervous organism. It is this inner force that is always meant; the force that works through the interior centers and is known as the Serpent Fire, Kundalini, or Prana.

Yesod tests and corrects the patterns we formulate with our ability to create mental images by projecting them into the field of sensation in Malkuth. If our imagery is based on error, disharmony results and the ensuing pain helps to make us aware of the need for more work to free ourselves from succumbing to the errors in the collective consciousness. The formative aspects of Yesod are directly under the dominion of the self-conscious image-making faculty in man. We can release old blocks or habit patterns by a more enlightened use of our self-conscious powers. Old destructive habits are easily given up when resistance to new, more constructive forms of reactions is given up. This takes a conscious effort at first to divert the flow of energy from the deeply grooved pattern into a new channel. But soon the new, constructive emotion becomes habit.

After the work of purifying the body comes the work of purifying the psychical nature. This means an upgrading of our automatic response and reactions to life. We become more consciously aware of responses that are not in harmony with the goals of the Higher Self. We create a channel for the liberating powers of the Self, which alone perfects us as a

personality. The higher Self uses the ego-personality to control subconsciousness by suggestion. It prepares the subconscious level of us for reception of higher instructions as to the workings of nature, i.e. healing misperceptions and emotional wounds or complexes. Mainly this means overcoming resistance to change.

The subconscious mind creates patterns in our thoughts, emotions, and behavior. If the mainstream of your thoughts, acts and emotions counteract your Higher Mind idealisms, then not much of these actually get incorporated into your foundation. The "new image" must be frequently reinforced or you will revert to the line of least resistance and act out your old, unadapted habit. But we can free ourselves from this bondage by deliberately and persistently visualizing, the image of our perfected personality. At the same time, remember to practice diverting attention and imagery from what you do not want to be or do or express.

"In Yesod are held the patterns of all possible forms. Certain simple geometrical figures can be discovered in all natural phenomena. Basically these forms are the cross, the square, the circle, the pentagon, the hexagon and octagon. All the manifold forms of the physical plane are based upon these simple figures. Their proportions contain representations of all force relationships in the universe. The lines and angular correspondences shown by these figures contain the principles upon which sound vibration, light and color, gravitation and electromagnetism depend. Wherever anything comes into physical being these proportions can be found. They can be detected as primal units in the kingdoms of nature. They are expressions of the One in the Many."

TEARS OF LAKSHMI

*I saw nothing but the Moon, deep inside.
Upon its evanescent pull I solely relied.
That lustrous, eternal, mysterious pearl,
Cool symbol of the psychic world.
Her orbit forms an etheric circle,
Echoing memories of love's euphoric recall.*

*Source of immortal joy with wonders implied.
To enter that realm I mightily strived,
Erasing my doubt about the ultimate goal.
Spirit enters body compelling surrender of the soul.
Resplendent in Fullness unveiled,
Her charms are many, minutely detailed.*

*Thirst for that spring of fresh water
Flowing from the Source of all decrees.
The ever-virgin cannot be fruitful,
So plumb her depths and sail her sea.
You are her son, as I am her daughter,
Molded in that image as by a potter.*

*The lotus-eyed goddess always knows
Just for whom the tears of Lakshmi flow.
With a mind as calm as moonlight
In the shelter of the Tree of Life.
Leaning on the windowsill of Heaven
Trust your body's innate wisdom.*

*She flies with her own gossamer wings;
Her heart hiding secrets of arcane things,
Learned neither by price nor by prayer.
Adventure in her labyrinth, if you dare.
The turbulent stream of imaginal flow,
The power of energy rooted below.*

*Moon of my delight, brilliant blue ray of light.
All spheres of heaven merge in that sight.
With quicksilver orb, and luminous halo.
For that perfect Queen of sacred love's pillow,
Our yearning discontent never ceases.
For the Source of Life it always increases.*

II. YETZIRAH, the Emotional Plane

The common name for this plane of awareness is the Astral Plane or the Astral Light. The Astral Light is synonymous with the Alchemical idea of the Anima Mundi, or Soul of the World. The Jungian idea of the Collective Unconscious as the treasure house of fluctuating imagery is a modern explanation for the experience of this phenomena.

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There are two distinct divisions into a Lower Astral and Higher Astral Plane. The Lower Astral includes the grossest manifestations of contact with the Divine through instincts and uncontrollable psychomotor phenomena influencing the body. the Higher Astral is the plane of images and affects, including emotional response. The Lower Astral is characterized by dissociation and loss or absence of memory and ego functions. The Higher Astral includes the first attempts to implement the will in a relationship with the sub-conscious forces. In the Astral Plane, archetypes are perceived in images or mind-pictures; often this means only a vague awareness or foreboding.

The Astral is also the realm of dream and divination. It is the Lunar plane of psychism and mediums. The Astral Body is appropriate for exploration or travel in this plane. Here, both Godforms and matter (Maya) are visible. The Astral Plane influences the body through the parasympathetic nervous system or the Central Nervous System. Its negative effects include over-emotionalism. Psychological reflection in this Plane leads to the acquisition of reliable information concerning self-knowledge. All other experience here, especially for purely personal gain, is to be discouraged.

The goal is to develop a cognitive understanding within the depths of the subconscious mind by observing the rich forms, exotic dreams, and luxurious images which present themselves in this medium. On the Astral Plane, symbols are living entities! The Astral Light, having no characteristics or form is fluidic, watery, reflective, and impressionable. Trying to create an impression on the astral substance (through visualization) which manifests latter in fulfillment of one's desire is misuse of psychic power for personal interest. This is the lowest form of magic, and to be shunned by all serious aspirants as a hindrance in the Work.

INSERT PICTURE TREE 1: THE FOUR WORLDS

"The astral plane is said to include but extend beyond the physical plane of our everyday world, and the astral light (the light created by God's command 'Let there be light', according to Eliphas Levi) transmits the rays or waves or vibrations of human will-power, thought, feeling, and imagination. In terms of Jungian psychology it is the medium of the archetypes, the basic ideas and symbols of the collective unconscious. In the astral plane thought, fancy and emotion have the same concrete reality as a solid object here on the physical plane, and the astral light is a great reservoir of occult power (like the mana of the Polynesians, or the prana of Hindus). Every human thought makes an imprint on the astral light, it is said, and in it the seer can read the history of the distant past in the Akashic Record or Cosmic Memory, through it the occultist can discern the reality behind the surface appearance of things, with it the magician works as a smith works with metals in his forge, shaping the subtle substance of the astral light with the tools of concentrated imagination and will."

--Man, Myth & Magic, p. 1630

"Its fluidity makes it easily suggestible. Even the most tenuous ideas impress or influence it. By directing the current of his will, ritually motivated, the magician is able to cause changes in the Astral Light.

The Astral Light or Astral Plane contains or constitutes the Cosmic Memory which is a repository of everything that has ever been thought or done. The Cosmic Memory is thus a vast, impersonal record of impressions which have been received since the beginning of time. Another name for the Astral Light is the Akasha; for this reason the Cosmic Memory is also called the Akashic Records. As these records are in picture form, they are recoverable by a competent skryer or medium."

--Man, Myth & Magic, p. 186

PENDULUM

*Dashing to and fro 'tween the pillars of the temple
In the centre there is a way to get off this 'time' a ways.*

*Do you see the King of Edom
who reigh unbalanced force
in the dawn of the birth of Israel?*

*They're the pendulums of peace and pain.
Faith itself must be slain by certainty
and chastity by ecstasy.*

*Wake from the sleep of Shilome
and be for the birth that is real.
Still the pendulums don't kneel to them.
Live the Probation's zeal.*

*There is Maya, the woman spinning
illusion with her dancing.
Weeping in her irony for all poor drowning souls.
She'll lay you low and make amends.
She burns your candle at both ends.
No period for her sentiments,
only penitence...*

*...and dashing to and fro
'tween the pillars of the temple.
In the center there is a way
to get off.*

John Gowan describes the three major modes of consciousness (or contact between the individual ego and the divine) as Trance, Art, and Creativity. Each state has particular characteristics which correspond precisely with Tree of Life modeling. (2)

a) Yesod = trance = prototaxic mode (characterized by loss of ego); psychomotor phenomena, signs. Lunar consciousness.

b) Path 25, Trump XIV, ART = Art = parataxic mode (characterized by the production of images whose meaning is not clear or categorical; personal or idiosyncratic use of symbols and imagery); affective, images. Lunar changing to

c) Tiphareth = Creativity = syntactic mode (where meaning is more or less fully cognized symbolically, with ego present); cognitive, symbols. Solar consciousness of Causal Plane. Creativity is the result of the harmonizing of lunar and solar elements.

Yesod as the Prototaxic Mode of Awareness:

The Prototaxic Mode (Trance) is an archaic mode of primitive consciousness which involves the body in somatic and kinesthetic behavior. It is characterized by dissociation and trance, awe, dread, horror, and panic. It includes such phenomenal experiences as possession, mediumship, hypnosis, astral projection, psychedelic drug experience, and paranormal aspects including ESP. Its range extends from the extreme dissociation of schizophrenia to the religious ecstasy of mystics and the magical flight of shamans. At the lower end of the prototaxic scale, ego control is weak or absent, and there is a general amnesia concerning the experiences during the trance state. Though the trance state produces some intriguing paranormal effects, it is the grossest form of contact with the divine powers of the subconscious. Through a taxonomy of these manifestations we may establish the relative value of these altered states of consciousness.

1. Schizophrenia (dissociation from daily life) is the grossest.

Panic reactions including mob contagion; terrifying sense of peril; guilt or sense of personal responsibility; disturbed erotic involvement or socially unsanctioned sex life.

Positive disintegration which is the necessary preliminary deprogramming phase preceding enlightenment. This mental illness is characteristic of shamans, psychologists and other cases of the "wounded-healer".

Hysteria including hyperarousal and psychosomatic conversion-reactions.

Unstressing is a behavior outlet for the psychic tension accruing from the confrontation with the powers of the Collective Unconscious. Includes "talking in tongues", dancing, shaking, motor automatisms (spasms, gasps, twitches, jerking, weeping, laughter, headaches, etc.).

2. Trance is the temporary restructuring of reality orientation including paranormal effects such as ESP, etc. Trance states include:

Sleep where images are profuse but the ego/will is absent.

Possession where the individual ego is usurped by a malevolent demon or spirit.

Mediumistic trance is a form of possession where a benign (or dead) spirit controls and dominates the individual ego.

Group Trance Dance such as those practiced by America Indians, Sufis, and Voodoo are also forms of possession, with paranormal manifestations.

Psychedelic drugs provide vivid imaginal "trips" which the ego has difficulty recalling and integrating meaningfully.

Sensory Deprivation produces hallucinations and disorientation.

Hypnosis and Autohypnosis produce four classic depths of trance.

Shamanistic Trance is a high form of prototaxic operation. The sorcerer's mission is to influence the environment by magic. He is not possessed by spirits, but controls them. He

retains his memory of magical flights or Out-of-Body Experience. He receives and remembers instructions from dreams, and because of his own wounding and recovery has the ability to heal.

Magical Trance is the prototaxic form of Lunar magic. It uses psychic powers for personal interests. Its parataxic mode form is ritual; its syntactic activity is visualization.

3. Paranormal Aspects of the Prototaxic Mode include:

ESP (telepathy, clairvoyance, precognition, psychometry).

Hallucinations

Anesthesia of pain and healing

Fire-walking and other mastery over fire

Psychokinesis and poltergeist phenomena

Out-of-Body (OOB) experience, (magical flight) astral projection

Automatic writing or "channeling"

Psychic Surgery

4. Higher Trance; theophanies or mystical experiences.

At this point, consciousness shifts modes of awareness to the Parataxic Mode known as ART. There is general increase in conscious participation, memory, and a movement from awe and dread toward pleasure as tensions are released in a creative activity. Frequently these include ritual (ceremonial magick) or the production of a socially recognizable work of art with collective value. Further progress on the continuum leads to increased cognitive awareness. Visualization ability is consciously cultivated, and a form of psychic "map" is adopted, such as the Qabalistic Tree of Life. Increasing self-realization leads to the desire to meditate, seeking higher experiences of human fulfillment. The Syntactic mode means the ego cooperates with the inner processes enough to remain fully conscious and in an Ordinary State of Consciousness. It voluntarily subordinates itself to the transpersonal energy of the divine.

INSERT CHART OF TRUMP XIV

INSERT TABLE 6-2 Properties of Various Trance States Compared

1. Philosophy

a. Initiation: Zelator

At this juncture, of the ceremony, with the Airy elements vibrating about him and through him, the Zelator is urged to be "prompt and active as the Sylphs, but avoid frivolity and caprice. Be energetic and strong as the Salamanders but avoid irritability and ferocity. Be flexible and attentive to images, like the Undines, but avoid idleness and changeability. Be laborious and patient like the Gnomes, but avoid grossness and avarice. So shalt thou gradually develop the powers of thy soul and fit thyself to command the spirits of the elements.

--Israel Regardie/*The Golden Dawn*

Initiation into the Sphere of Yesod is designed to produce the conscious realization that one's true Identity resides in the Higher Self, known in Magick as the Holy Guardian Angel. The stage of magickal practice after Yesod is Path 25 (Trump XIV, ART) which is attempted Knowledge and Conversation with this entity which personifies one's True Will.

As a Zelator, the aspirant seeks a lifestyle which is conducive to achieving the conditions required by his project. "Change is stability" and allows one to break free of outmoded habit patterns. This change for the sake of the Great Work may never be undertaken at the emotional expense of those close to you. No one ever made spiritual progress by walking over the backs of others.

The Zelator is expected to conduct experiments with techniques of physical clairvoyance, such as testing with ESP cards. He is required to become proficient in Hatha Yoga, or some other comparable physical discipline which encourages inner stillness. He learns the technique of pranayama, or control of breathing and other autonomic functions. All of this stilling of the body is for meditation. The Zelator learns how to control his myriad thoughts (Dharana) and strives toward concentration.

The Zelator embodies that aspirant who experiences a psychic state midway between enthusiasm and love. He is energetic and dedicated, one might say fascinated with the sparkling imagery of his newly-found inner world. He has a fanaticism which wears off once maturity on the Path is gained. The meditation is, in fact, the counterpoint to the overenthusiastic hyperarousal which might result in "burn out" if left unchecked. There is no advantage to "too much, too soon" and students of the Middle Path are cautioned to be moderate in all things, including meditation. Marathon meditation days, at this point, would tend to produce psychic dissociation, rather than a gradual integration of an expanded worldview.

A Zelator rarely moves again after his initiation as the volumes of his Magickal Journal and Dream Diary are now too numerous.

b. Ritual: The Value of Dreamwork

The archetypes to be discovered and assimilated are precisely those which have inspired the basic images of ritual and mythology. These eternal ones of the dream are not to be confused with the personality modified symbolic figures that appear in nightmares or madness to the tormented individual. Dream is the personalized myth. Myth is the depersonalized dream.

--Joseph Campbell

No one who does not know himself can know others. And in each of us there is another whom we do not know. He speaks to us in dream and tells us how differently he sees us from the way we see ourselves. When, therefore, we find ourselves in a different situation to which there is no solution, he can sometimes kindle a light that radically alters our attitude; the very attitude that led us into the difficult situation.

--C. G. Jung

As we spend a large proportion of our lives in a dream state, a fuller understanding of their implications may prove valuable. Today, there are several prevailing theories concerning the significance and value of dreams. No final statement about dream may be made. There are several approaches to each perspective which is assumed a priori. There are many alternatives to choose from. One's choice of style in dreamwork will be determined by the mythemes currently embraced. The characteristic attitudes associated with the archetypes will motivate and influence one's approach to the dreamworld.

Stephon Kaplan Williams (3) (Jungian-Senoi Institute) is one of the foremost proponents of Dreamwork. He outlines a six-point program for continued use.

1. Dialogue with the dream characters, asking questions and recording answers.
2. Re-experience of the dream through imagination, art projects, and creativity.
3. Examination of unresolved aspects of the dream, and contemplation of solutions.
4. Actualization of insights in daily life, where relevant.
5. Meditation on the source of dreams and insight from the Self.
6. Synthesize the essence of dreamlife and its meaning in a journal and apply them in one's life journey.

To offer a variety of other approaches, we will cover theories on dreams and dreaming from Jung's original work, the analytical psychology school, para-psychology, and archetypal or imaginal psychology. Knowledge of the antiquated Freudian system is so wide-spread that no further comment here seems necessary.

Jung was the first to depart from Freud's "sexuality-fraught" perception of dreams. Where Freud saw one complex, Jung saw many. He saw in dreams a gamut of archetypes overseen by the transcendent function, or Self. Analytical psychology amplified and clarified his original material. Most of this work is concerned with the fantasy of the process of individuation. It reflects an ego with a heroic attitude, and proceeds by stages of development. Consciousness, at this stage, is generally monotheistic. It has a tendency to seek the center of meaning, as if there were only One. Parapsychological work done with dreams also seems to reflect this attitude of searching, influencing, and controlling.

In *Re-Visioning Psychology*, James Hillman differs from the traditional analytical viewpoint by stating:

Dreams are important to the Soul--not for the message the ego takes from them, not for the recovered memories or the revelations; what does seem to matter to the soul is the nightly encounter with a plurality of shades in an underworld...the freeing of the soul from its identity with the ego and the waking state...What we learn from dreams is what psychic nature really is--the nature of psychic reality; not I, but we...not monotheistic consciousness looking down from its mountain, but polytheistic consciousness wandering all over the place.

In Jung's model, one major function of dreams is to provide the unconscious with a means of exercising its regulative activity. Conscious attitudes tend to become one-sided. Through their postulated compensatory effect, dreams present different data and varying points of view. Individuation is the psyche's goal; it seeks to bring this about through an internal adjustment procedure. There is an admonition in Magick to "balance each thought against its opposite." Dreams, according to Jung, do this for us automatically. However, there must be a conscious striving toward incorporation of the balancing attitudes presented through dreams (this applies equally to fantasies and visions).

Another apparent function for a dream state is to take old information, contained in long-term memory, incorporate it with those experiences, and integrate them with new experiences. This creates new attitudes. Since the dream conjoins current and past experiences to form new attitudes, the dream contains possible information about the future. There is a causal relationship between our attitudes and the events which manifest from our many possible futures.

In studies at Maimonides Dream Labs, Stanley Krippner and Montague Ullman were trying to impress certain information on an individual's dream. They found that an individual, being monitored for dream states, could incorporate a mandala, which was being concentrated on by another subject, into his dream. This led to their famous theory on dream telepathy.

Dream symbols appear to allow repressed impulses to be expressed in disguised forms. Dream symbols are essential message-carriers from the instinctive-archetypal continuum to the rational part of the human mind. Their incorporation enriches consciousness, so that it learns to understand the forgotten language of the pre-conscious mind.

The dream language presents symbols from which you can gain value through dream monitoring. You can use these dream symbols directly to facilitate communication with this other aspect of yourself. Should you choose later to re-program yourself out of old habit patterns, you're going to want an accurate conception of what dream symbols really mean.

A symbol always stands for something that is unknown. It contains more than it's obvious or immediate meaning. The symbolic function bridges man's inner and outer world. Symbolism represents a continuity of consciousness and preconscious mental activity, in which the preconscious extends beyond the boundaries of the individual. These primitive processes of prelogical thinking continue throughout life and do not indicate a regressive mode of thought. Dream symbols are independent of time, space, and causality.

The meaning of unconscious contents varies with the specific internal and external situation of the dreamer. Some dreams originate in a personal or conscious context. These dreams usually reflect personal conflicts, or fragmentary impressions left over from the day. Some dreams, on the other hand, are rooted in the contents of the collective unconscious. Their appearance is spontaneous and may be due to some conscious experience, which causes specific archetypes to constellate.

It is often difficult to distinguish personal contents from collective contents. In dreams, archetypes often appear in contemporary dress, often as persons vitally connected with us.

In this case, both their personal aspect (or objective level), and their significance as projections or partial aspects of the psyche (subjective level) may be brought into consciousness.

A dream is never merely a repetition of preceding events, except in the case of past psychic trauma. There is specific value in the symbols and context the psyche utilizes. It may produce any; why is it sending just this dream and not another? Dreams rich in pictorial detail usually relate to individual problems. Universal contexts are revealed in simple, vivid images with scant detail.

No attempt to interpret a single dream, or even the sequence dreams fall in, is fruitful. In fact, later research by Asklepia Foundation researchers asserts it is more important to journey using dreams as experiential springboards for therapeutic outcomes. In interpreting a group of dreams, we seek to discover the 'center of meaning' which all the dreams express in varied form. When this 'center' is discovered by consciousness and its lesson assimilated, the dreams begin to spring from a new center. Recurring dreams generally indicate an unresolved conflict trying to break into consciousness.

There are three types of significance a dream may carry:

- 1) It may stem from a definite impression of the immediate past. As a reaction, it supplements or compliments the impressions of the day.**
- 2) Here there is balance between the conscious and unconscious components. The dream contents are independent of the conscious situation, and are so different from it they present conflict.**
- 3) When this contrary position of the unconscious is stronger, we have spontaneous dreams with no relation to consciousness. These dreams are archetypal in origin, and consequently are over-powering, strange and often oracular. (These dreams are not necessarily most desirable to the student, as they may be extremely dangerous if the dreamer's ego is still too narrow to recognize and assimilate their meaning.)**

We can never empirically determine the meaning of a dream. We cannot accept a meaning merely because it fits in with what we expected. Dreams can exert a reductive as well as prospective function. In other words, if our conscious attitude is inflated, dreams may compensate negatively, and show us our human frailty and dependence. They also may act positively by providing a 'guiding image' which corrects a self-devaluing attitude, re-establishing balance. The unconscious, by anticipating future conscious achievements, provides a rough plan for progress.

Each life, says Jung, is guided by a private myth. Each individual has a great store of DNA information. It is generally mediated by the archetypes which are deployed by both myth and dream. As you create this individual or private myth, it attracts, if you will, an archetypal pattern and molds itself in a characteristic way (or visa versa). The archetype precipitates compulsive action. It is the motivating factor which may become externalized in the physical world. Jung notes: "The dreamer's unconscious is communicating with the dreamer alone. And is selecting symbols which have meaning to the dreamer and no one

else. They also involve the collective unconscious whose expression may be social rather than personal."

We may discover hidden meaning in our dreams and fantasies through the following procedure:

- 1) Determine the present situation of consciousness. What significant events surround the dream?
- 2) With the lowering of the threshold of consciousness, unconscious contents arise through dream, vision, and fantasy.
- 3) After perceiving the contents, record them so they are not lost (the Hermetic seal).
- 4) Investigate, clarify, and elaborate by amplification with personal meanings, and collective meaning, gleaned from similar motifs in myth and fairy tale.
- 5) Integrate this meaning with your general psychic situation. Instincts are the best guide; if you are obtaining "value" from your interpretation, it will "feel" correct.

Complexes and their attendant archetypes draw attention to themselves but are difficult to pinpoint. We may use conscious amplification of the symbolism presented in dream form. All the elements of the dream may be examined in a limited, controlled, and directed association process, which enlarges and expands the dream material through analogy. The nucleus of meaning contained in the analogy is identical with that of the dream content.

When a dream is falsely interpreted, others follow to correct the error. Preconscious contents are on the verge of being remembered. Just as language skills facilitate new conceptualization, knowledge of the vocabulary of dream symbolism allows closer rapport with the preconscious. Dreaming is one of the easiest methods of contact with the numinous element, or unknown.

To illustrate how archetypes may affect perspective, we will now examine another of the methods for working with dreams and other images. If Freud's view on dreams can be seen as Aphroditic/sexual, and Jung's as heroic/developmental (Yesod and Tiphareth, respectively in QBL), then Hillman's newer "Verbal Technique" might be seen as associated with Hades, Lord of the Underworld or deep subconscious, (DAATH in QBL). This relationship to the image is seeking value, depth, and volume.

This method stresses keeping to the image as presented rather than analyzing symbols. This method, while usable by anyone, is being applied by those who are thoroughly acquainted with symbols and their meaning in an attempt to recapture to unknown element. The dream image expresses this if the symbols are not dissected from their "specific context, mood, and scene." An image presents symbols with their particularity and peculiarity intact. Dream presents a variety of images which are all intra-related. Time and sequence are distorted in dream. Hillman prefers to view dream images with all parts as co-relative and co-temporaneous.

This approach to the dream is a sort of metaphorical word-play. The elements of the dream are chanted or interwoven. Repeat the dream while playfully rearranging the sequence of events. Remain alert to analogies which form themselves during this word play. Ruminates on any puns which may occur. As the play unfolds, deeper significance emerges as a resonance. By allowing the dream to speak for itself, interpretations appear indirectly.

This is a method of communicating with the psyche which is in harmony with its inherent structure. In alchemy, it is known as an *iteratio* of the *prima materia*. Its value is evident, according to Hillman. "We do not want to prejudice the phenomenal experience of their unknowness and our unconsciousness by knowing in advance that they are messages, dramas, compensations, prospective indications, transcendent function. We want to get at the image without the defense of symbols." (1)

The archetypal content in an image unfolds during participation with it.

We have found that an archetypal quality emerges through a) precise portrayal of the image (including any confusion or vagueness presented with the image); b) sticking to the image while hearing it metaphorically; c) discovering the necessity within the image (the fact that all the symbols an images presented are required in this context); d) experiencing the unfathomable analogical richness of the image. (2)

In this context, 'archetypal' is seen as a function of making. The adjective may be applied to any image (6) upon which the operations are performed. This means that no single image is inherently more meaningful than another. Value may be extracted from them all. This coincides with the alchemical conception of the Opus as work. Here the Opus is carried by the dreamwork technique.

Archetypal psychology contends that the value of dreams has little application to practical affairs. In *Re-Visioning Psychology*, Hillman postulates that:

Dream's value and emotion is in relation with soul and how life is lived in relation with soul. When we move the soul insights of the dream into life for problem-solving and people-relating, we rob the dream and impoverish the soul. The more we get out of a dream for human affairs the more we prevent its psychological work, what it is doing and building night after night, interiorly, away from life in a nonhuman world.

The dream is already valuable without having any literalizations or personalistic interpretations tacked on to it.

Hillman ends his "Inquiry Into Image" by stating that the final meaning of a dream cannot be found, no matter how it seems to "click."

Analogizing is like my fantasy of Zen, where the dream is the teacher. Each time you say what the image means, you get your face slapped. The dream becomes a Koan when we approach it by means of analogy. If you can literalize a meaning, "interpret" a dream, you are off the track, lost your Koan. (For the dream is the thing, not what it means.) Then you must be slapped to bring you back to the image. A good dream analysis is one in which one gets more and more slaps, more and more analogies, the dream exposing your entire unconscious, the basic matters of your psychic life.

This type of analysis seems consistent with the origins of the word. Originally, it had to do with "loosening." This type of dream analysis loosens our soul from its identity with day-to-day life. It reminds us that styles of consciousness other than that of the ego have validity. The soul experiences these styles nightly.

No paper of dreams would be complete without some mention of nightmares. Even though dream is an easy method of contacting the unconscious, it is not always pleasant. Occult literature speaks of a figure called "the Dweller on the Threshold." In Eastern philosophies there are the wrathful deities. This figure corresponds with Trump XV, The Devil, in Tarot. This seems consistent with Hillman's attribution of the dream as Hades' realm.

The healthy person learns easily to cooperate on his descents into the psyche. The uninformed or neurotic personality is likely to encounter hindrances. These hindrances often take the form of frightening, monstrous, overpowering forces. Ego-consciousness is not able to comprehend them. When the subconscious is highly activated these images may occur during waking hours and in sleep. This dread and oppression form the basis for nightmares. Pan and his attendant phenomena (such as panic) are archetypal representations of the nightmare. Pan also corresponds with Trump XV.

In the heroic model, as consciousness develops, there is a marked difference in both the content of dream and the dreamer. He gains increased ability to assimilate the charges of energy associated with the dream. The more conscious the experience of the numinous, the less fraught with irrationality and fear the experience. This holds true in waking and sleeping hours.

John Gowan, in *Trance, Art, and Creativity* , states, "It is this gentling, humanizing process exerted on the preconscious by creative function of the individual which is the only proper preparation for the psychedelic graces." These graces include an immersion of the ego in the expanded context of the subconscious. The ego is then able to return from its experience enriched by the contact. Contents which might formerly have been considered nightmarish are more fully understood, and the monsters become transformed into butterflies. (7)

This attitude toward nightmare is not consistent with Hillman's approach. He does not advocate changing or controlling the psyche. This is, in fact, neither possible nor desirable. He asserts that to enter dream is to enter the underworld, Hades' realm. Psychic images are metaphorical. All underworld figures are shades or shadow souls. There is no reason for them to conform to the constraints of the ego's dayworld.

Soul is the background of dream-work. Underworld is psyche. This relates, therefore, to a metaphorical perception of death. Dreams present us with that different reality, in which pathology and distortion are inherent aspects. We needn't control them, but rather acknowledge their value and depth.

Assuming it is necessary or desirable to control any aspect of dream life, there is a further development of consciousness which enables one to consistently experience what is known as the "lucid dream" or "high dream." In a lucid state, there is an overlapping of normal waking consciousness coupled with the dream state. At this stage, one is able to progressively acquire and exercise will in dream states.

In the lucid dream, one "witnesses" the fact that one is dreaming, and may take an active role in the unfolding of the dream. This optional ability is generally associated with the heart-center, or Tiphareth. The heart-center has to do with developing consciousness of the imaginal realm.

Rather than control or meddle with dreams, it is more effective to exercise creative expression in waking hours. Many persons pursuing their fantasy of individuation have an outlet through active imagination. Active imagination is, in itself, an art form. It is generally practiced through a discipline, such as psychology, alchemy, or Magick. It may be dramatic, dialectic, visual, acoustic, or in some form of dancing, painting, drawing, modeling, etc.

People who give free rein to fantasy in some form of creative imagination often dream less. All psycho-active drugs also tend to diminish dreaming.

In other words, there seems to be a variable ratio between creativity and dream. Jung made the discovery that "this method often diminished to a considerable degree, the frequency and intensity of dreams, thus reducing the inexplicable pressure exerted by the unconscious." There need be no conscious desire to control or interfere in the actual dream. The ego learns to meet the subconscious on a middle ground, the vale of soul making. The activities and intent of both are harmonized. Staying close to the original image is fundamental.

As of this writing (2002), experiential dreamwork or Dream Healing offers an even better prospect for therapeutic interaction within dream imagery. For a complete exposition of this school of dreamwork, rooted in Transactional Analysis and Gestalt, see the Asklepia Homepage, at <http://asklepia.org>

c. Practical QBL: The Body of Light, Part 1; THE ASTRAL BODY

The concept of subtle bodies created by the aspirant for experience on higher planes is very old, indeed. Different vehicles are appropriate on different planes. For the physical plane, the human body is ideal. For the Astral Plane of images, a starry body or body of light is required which is a precise copy in the finer luminous "material" of that rarefied sphere. This light body has the ability of separating itself from the flesh and blood body and has the ability to "fly into the sky" with none of the limitations of a mortal frame.

The astral body contains the fully functioning consciousness of the aspirant. Its existence persists after physical death, and it is in this body that those who recall near death experiences of the "other side" were functioning.

Magickally, the astral body is built in the imagination through the process of pranayama, or control of the breath. However, original concepts of a starry body may be traced to classical Greek philosophy so the idea is not necessarily oriental in origin.

Aleister Crowley gave precise instructions for "Getting into the Astral Body" in his classic work, *Magick in Theory and Practice*.

The proper method is as follows: Develop the body of Light until it is just as real to you as your other body...Ultimately, the relation of that body with your own must be exceedingly intimate; but before this harmonizing takes place, you should begin by a careful differentiation. The first thing to do, therefore, is to get the body outside your own. To avoid muddling the two, you begin by imagining a shape resembling yourself standing in front of you. Do not say: "Oh, it's only imagination!" The time to test that is later on, when you have secured a fairly clear mental image of such a body. Try to imagine how your own body would look if you were standing in its place; try to transfer your consciousness to the Body of Light. Your own body has its eyes shut. Use the eyes of the Body of Light to describe the object in the room behind you...

As soon as you feel more or less at home in the fine body, let it rise in the air. Keep on feeling the sense of rising; keep on looking about you as you rise until you see landscapes or beings of the astral plane. Such have a quality all their own. They are not like material things -- they are not like mental pictures -- they seem to lie between the two...

Now, however unsuccessful your getting out of the body may apparently have been, it is most necessary to use every effort to bring it properly back. Make the Body of Light coincide in space with the physical body...then recover the unity of consciousness. If you fail to do this properly you may find yourself in serious trouble. Your Body of Light may wander away uncontrolled, and be attacked and obsessed. You will become aware of this through the occurrence of headache, bad dreams, or even more serious signs such as hysteria, fainting fits, possibly madness or paralysis. Even the worst of these attacks will probably wear off, but it may leave you permanently damaged to a greater or lesser extent.

It is interesting to note that all the potential symptoms of improper astral work reflect the conditions of the lowest level of the prototaxic mode. So, the idea in astral working is to move upward in the planes toward an increase in conscious awareness.

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2. Psychology

a. Psychological Model: Mythical Living

MYTHICAL LIVING

A Metaphorical Perception of Experience

by Philo Stone, c1977

Jung has suggested that each individual life is based on a particular myth, and that we ought each to discover what our own basic myth is, so that we may live it consciously and intelligently, cooperating with the trend of this life pattern, instead of being dragged along unwillingly.

These patterns can be seen recurring in the lives of certain people, who remain totally unconscious of what they are living. But if the individual becomes conscious in relation to the archetypal trend that underlies his life--his fate--he can begin to adapt himself to it consciously. The outer fate is then transmuted into the inner experience, and the true individuality of the man or woman begins to emerge. This is an important step in the quest for the Self.

--M. Esther Harding/*The I and the Not-I*

I. Philosophy

Myth may be defined as a paradigmatic model. In science, paradigms are thought-models which direct their holders to pose only certain questions and to utilize only certain methods in search of answers. This precisely parallels the effect of a given archetype when it is activated; it molds our attitudes in a characteristic manner so that we catch certain things but ignore or omit what just doesn't fit.

The particular paradigmatic lenses we choose to form our conceptualization of reality function to shape the very reality we hope to capture and understand. By emphasizing particular relationships, or elements, they largely determine the nature of the "reality" we experience. This conceptualization of reality is known as one's worldview. A person who embraces a particular paradigm can create a reality from his expectations, even without conscious intent to do so.

In our technological world, most paradigms stress a routine or mechanical side of life. In order to acquire experiential freedom from cultural programming, one must have a model. A model is required for realization.

Myths, then, serve a key function in the psychic economy. Myths provide the most comprehensive metaphors, or models, for the realization of liberating alternatives. The meaning in life is inherent in the archetypal experience of myth. The aesthetic experience and its 'meaning' are identical.

In a religious society, myths tell the people who they are and where they come from. To change the myth is to become lost in the most profound ontological (1) sense. Modern man lives in a world of intellectual fragmentation. He feels a need to dissect any and everything, especially himself, to find out the universal order of things and to seek his place in it.

Mythological explanations arise when an individual or race evolves the three primary questions:

- 1) who am I?**
- 2) where do I come from?**
- 3) where am I going?**

The meaning of existence lies in a relevant answer to these questions. These answers formulate one's worldview. With these questions, a universal seed within man begins to germinate. Self-consciousness begins to unfold its awareness of totality. The finite mind begins to bridge the gap to infinite awareness.

In seeking to find the beginning of creation, man must first cease thinking in terms of space and time. In Reality there is neither. It is an illusion that man is contained in space and time. In fact, both are contained in man. Both experiences, together, illustrates psychic experience. The Creations, as a psychological reality, was/is/will occur in the realm of the sacred, not the profane world. With our human limitations, sacred time is experienced as multiple recurrence. It is thus a continuous, timeless-creation. All parts of the process are inherent in its wholeness. Likewise, wholeness is inherent in all parts. This is the Alpha/Omega principle.

As this universal seed starts to grow in an individual, he is plunged from his preconscious, womb-like security into a dazzling world of intellectual confusion. He experiences paradox. There is dichotomy, a lot of contradiction. So, man comes to duality of subject and object. Conflicts are produced, which, used creatively, may lead to the individuation, the subjective and objective spheres merge into one.

II. Orientation

A complete mythology provides helpful orientation in four ways:

- 1) In its metaphysical-mystical function, it wakens and maintains in the individual an experience of awe, humility, and respect in recognition of the ultimate mystery which transcends words and form.**
- 2) It provides a cosmology, or an image of the universe. Science now serves this mythological function, admirably.**
- 3) On the social level, myth supplies validation and maintenance of an established order.**
- 4) Finally, on the psychological level, they provide models for the centering and harmonization of the individual.**

Mythologies perform these functions through symbols. The focal point provided by image and symbol holds the mind to truth. The ultimate is, of course, unknowable. Therefore, the images themselves are not "the truth."

For contemporary man, a journey into his unconscious provides the vital meanings and relatedness to the cosmic order that myths once gave us. It is a return to the source which goes a step further than genealogy. Meaning is inherent in conscious experience of archetypal processes. A model for pursuing the quest provides a foundation to which one's experience may be related.

The modern search for meaning is a variant of the age-old quest, or journey of the hero. This mythological motif is activated whenever cultural values and mores do not provide an adequate model for one's experience. The social boundaries dissolve and a person is thrown back on his own resources. Valuable connections and new forms must be re-established. During this period, symbols acquire great personal value. For many, this period is seen as an experience of rebirth or renewal. This heroic stage does not go on indefinitely. Questing fades into the background when one becomes familiarized with the imaginal realm. Both processes, questing for and participating in the imaginal realm, require attention, effort, and creativity.

Evidence of man's great desire for this experience is found in the common use of drugs in the counterculture. Rather than the gradual path of study, experience, and assimilation, drugs may provoke experiences which are "too much, too soon." Joseph Campbell has likened the situation to one found in Greek mythology "in which a person says to a god, 'Show me yourself in your full power.' And the god does and the person is blown to bits." The personality suffers from an inability to relate, meaningfully, to society. Drug experiences provide ample evidence of the world of the psyche, but in order for us to obtain value from the contact, consciousness must be able to come to understanding, digestion, and assimilation of the experience.

Liberating experiences require a context of strong ego-consciousness. This does not mean "willful assertion." It means that the ego has learned to discriminate between itself and the

archetypal processes operating through and around it. It means, also, that the ego has learned to defer to, and cooperate with them.

A frightened ego, in danger of drowning in deep waters, will quickly regress to the natural standpoint, otherwise unaffected by its contact with the numinous. The boon, which the successful hero may bring back (which has both personal and collective significance), is not given to him. He does not find the gods cooperative. The lessons of the "trip" prove most troublesome and provide no benefit in daily life. He is lucky if his worst problem is merely the desire to stay "high." There is a generation of "world-weary" people, eager to transcend off into some mythical realm. However, their methods are either haphazard, or ill-advised.

This type of unassimilable experience stimulates the complex of the puer aeternus, or eternal adolescent. When it occurs in a woman, it is a puella complex. This complex is epidemic in our society, today. This was not the case a century ago, when our cultural model was more strictly defined. The ideal lies somewhere between, in a reunion of the values of tradition and futurity. This requires the ability to apply oneself to the task. It requires self-motivation, diligent effort, and the grace of god.

When man enters the myth of transformation, he sets out to change the world. Soon, he becomes aware that he must first change himself. In this moment of transformation, myth is seen as an intuitive, ever-becoming processing. Man is not really contained in the myth, and in time. Both myth and time are contained within himself. The gods and man are involved in a symbiotic relationship. Each requires the other for realization.

When man seeks the motives behind the act of becoming, he transcends from concrete intellectual conception to metaphysical abstractions. Eventually, he comes to an understanding that metaphysics is the science of the content of myth. The so-called "occult" is mainly involved with developing man's latent subconscious powers, so he may develop greater access to the imaginal realm. This opens up a world which, by definition, contains wider parameters for experience and growth. It provides a comprehensive, cohesive method and model. With it, man may live his individuality within the context of tradition.

There are aspects of creative mythology, and its form of metaphorical perception, which tie it in with a holographic concept of reality. (2)

Within metaphorical and mythic conception, a part does not merely stand in the place of or represent the union of several elements, but rather it is identical with the whole. If the part is the whole, then whoever controls the part controls the whole. In normal discourse, symbols represent their referents and are separable from what they represent; in metaphorical or mythic conception, the symbols are their referents; they cannot be separated. The elegance of language lies in its capacity to separate symbol from experience so that symbols can be manipulated in a way that experiences cannot be. While we cannot experience precisely the same thing ever again, we can attach similar symbols to represent two experiences as being roughly the same. (3)

The chaotic assortment of apparent and disguised mythological images have certain typical features. We may reduce the infinitely variegated and complex forms to their simplest expressions as a means of recognizing them. Jung's list of salient characteristics includes:

Chaotic multiplicity and order; duality; the opposition of light and dark, upper and lower, right and left; the union of opposites in a third (complexio oppositorum); the quaternity (square, cross); rotation (circle, sphere); and finally the centering process and a radial arrangement usually followed by some quaternity system. The centering process is...the never-to-be-surpassed climax of the whole development, and is characterized as such by the fact that it brings with it the greatest possible therapeutic effect.

Experience of these archetypal processes offers the possibility of orienting oneself. Several traditional mystical exercises stress the importance of the centering process. Fundamental in these meditations is orienting oneself to the four cardinal directions. The role of creative imagination is fundamental. Virtually any experience available to man is integrated via a form of imagery.

Myth raises the individual to a superhuman or superhistorical plane. It enables him to approach Reality that is inaccessible at the level of profane experience. If the mind makes use of images to grasp the ultimate Reality of things, it is just because Reality manifests itself in contradictory ways and therefore cannot be expressed in concepts.

James Hillman, Director of Studies in Imaginal Psychology at the University of Texas, states that *"We can describe the psyche as a polycentric realm of nonverbal, nonspatial images. Myth offers the same kind of world. It too, is polycentric, with innumerable personifications in imaginal space. Just as dream images are not mere words in disguise...so the ancient personifications of myths are not concepts in disguise."* He states further that *these "soul events are not parts of any system. They are independent of the tandems in which they are placed, inasmuch as there is an independent primacy of the imaginal that creates its fantasies automatically, ceaselessly, and spontaneously. Myth-making is not compensatory to anything else."*

The more paradigmatic models one has access to, the more freedom of creation one experiences. "It is egoistic to recognize oneself in only one portion of a tale, case in only one role." (4) Polytheistic consciousness allows us to experience the gamut of archetypal perspectives. This leads the individual to broader consciousness and greater tolerance of other individual's perspectives.

Myth is the comprehensive metaphor, "answering our requirements for intellectual puzzlement and explanation through enigma by providing as-if fictions in depth, complexity, and exquisite differentiation." "Myth," says Hermann Broch, "is the archetype of every phenomenal cognition, of which the human mind is capable. Archetype of all human cognition, archetype of science, archetype of art--myth is consequently that archetype of philosophy, too." We might deduce from this that myth functions as a sort of metapsychology.

Mythic metaphors elude literalism; they dramatically present themselves as impossible truths. They have the ability to transform concrete particulars into universals, and to

present abstract universals as concrete actions. They are ways not only of speaking, perceiving, and feeling, but of existing. We may experience mythical consciousness by finding Gods in our concrete lives. They are found by entering myths, since that is where they are. We may participate with them by recognizing our concrete existence as metaphors, or mythic enactments.

However, Hillman is very deliberate in stating that: "myths resist being interpreted into practical life. They are not allegories of applied psychology, solutions to personal problems. This is the old moralistic fallacy, now become the therapeutic fallacy, telling us which step to take and what to do next, where the hero went wrong and had to pay the consequences, as if this practical guidance were what was meant by 'living one's myth'."

"Living one's myth doesn't simply mean living one myth. It means that one lives myth; it means mythical living...to try to use a myth practically keeps us still in the pattern of the heroic ego, learning how to do his deeds correctly. Myths do not tell us how. They simply give the invisible background which starts us imagining, questioning, going deeper." Myths do not carry one to a central meaning, or the center of meaning. "To enter myth we must personify, to personify carries us into myth."

III. Exercise

Personification is a mode of viewing archetypal processes in their traditional forms as gods and goddesses. This method allows us to love the gods, giving them attention and worship. Their names aid us in discriminating them one from another. They give us the ability to call upon them.

This process of devotion takes place in the imaginal realm of the heart. In QBL, this is Tiphareth, the heart-center. In Eastern systems, it is known as anahata chakra. It is the realm of soul-making. Personification is a spontaneous process, springing from the heart, where imagination reigns. This process of active imagination allows us to "see through" the literalisms of mundane existence and to participate in relationships with the divine.

A primary purpose of Middle Pillar Exercise is to orient oneself with the Universe (5). It promises equilibration and renewal. In Middle Pillar Exercise, the gods are brought into consciousness by intoning their names. This creates a resonance effect which stimulates glands. These names are related, via correspondence, to various centers in the body. Repeated practice of Middle Pillar Exercise is fundamental for any Magickal development. It heals the culturally-preprogrammed split between mind, soul and body.

The Banishing Ritual and Middle Pillar Exercise are particularly effective because they are a dramatization of the Creation Myth. In his book, *The Sacred and the Profane*, Mircea Eliade states,

The creation of the world becomes the archetype of every human gesture, whatever its plane of reference may be. Every construction or fabrication has the cosmogony as paradigmatic model.

Techniques of orientation (aligning oneself to the directions), are designed for the construction of sacred space. The more closely a ritual reproduces the work of the gods in

creation, the more effective it is in producing the desired psychological results. Knowing the value of a ritual satisfies both the rational and aesthetic mind.

The model for the creation of sacred space begins from a center and projects horizons in the four cardinal directions. This model has been followed throughout history when settling new territory or in the founding of cities. We always reside at the center of "our world."

This quadrated circle sets up the conditions necessary for us to enter into sacred time. The Banishing Ritual "cleanses" the portion of space within the perimeter of the circle. This eliminates unwanted thoughts which could cause distraction. One then has enhanced ability to focus and concentrate. The circle is cleared of all 'entities,' good or evil. Then one may call in specific gods, at will. We may contact the gods through the medium of the sacred pole or cosmic pillar.

Sacred time appears under the paradoxical aspect of circular time, reversible and recoverable, a sort of mythical eternal present that is periodically reintegrated by means of rites.

When we enter this space, we experience the feeling of immortality, since we are in a time which is equivalent to the "beginning." The principle characteristics of sacred space are:

- a) A break in the homogeneity of space;
- b) This break is symbolized by an opening where passage from one cosmic region to another is facilitated (i.e. between heaven and earth; earth and the underworld);
- c) Communication with heaven is expressed by variants of the Cosmic Pillar, which stands at the Center of the World.

This Pillar is a useful symbol for what is termed in psychology the Ego-Self Axis. The axis is built up through various psychological exercises, involving active imagination. It forms the link between ego-consciousness and the Self. This represents both the conscious and subconscious mind working together in harmony. It is known in Magick as Knowledge and Conversation of the Holy Guardian Angel.

The Banishing and Middle Pillar exercises conform precisely to the creation myth. Since a myth is a paradigmatic model, one can see it is a very effective exercise. It establishes one's relationship to the cosmos, or totality. Eliade has said:

What men do on their own initiative, without a mythical model, belongs to the sphere of the profane; hence, it is a vain and illusory activity, in the last analysis, unreal. The more religious a man is, the more paradigmatic models he possesses to guide his attitudes and actions.

The importance of persistent practice of Middle Pillar technique, throughout the Magickal career, is not to be underestimated. Israel Regardie is quite firm on this point.

To my mind, the exercise described as the Middle Pillar is the groundwork of all actual developmental work. It is a process which is the basis of Magic. That this has been but seldom realized is obviously at the root of the futile attempts to do Ceremonial and

perform Ritual, of which the general public hears every now and again. Even students of Magic of many years standing have been guilty of negligence in this respect, and also in failing to recommend it to their successors. (6)

Timelessness will appear as a multiple recurrence (chronicity). The archetypal order will make these appearances regular, both in time (wave frequency) and magnitude (wave amplitude). The ego has the option of actively participating in the process through the medium of active imagination. This develops insight.

To restore our earth to a ground in creative imagination we must re-imagine the creation. (7)

b. Archetypal Encounter: Lunar (or Feminine) Consciousness

What constitutes awareness? The day-world of ego-consciousness has been called Solar conscious and considered masculine in nature. Nevertheless, even without this rational mode of solar-consciousness, we experience the primordial, diffuse awareness of Lunar (or Feminine) consciousness. This is our basic psychic reality, from which the ego-consciousness later emerges.

Psyche (Greek) or Anima (Latin) means soul. So anima-consciousness or soul-consciousness indicated an awareness that perceives fantasy creating reality. Anima-consciousness comes through images. It brings awareness that fantasies are everywhere. They are not separate from reality, but fundamental to our notions about reality. Jung says, "image is psyche."

Anima (or soul personified) combines the innocent virginity of the soul's unsullied pristine state with the sophisticated worldliness of the fertile Great Mother (White Goddess). She is the embodiment of the Woman's Mysteries.

Anima, as the archetype of psychic consciousness makes us aware of our areas of unconsciousness. Soul, in its relationship with spirit constantly invades the day-world consciousness with images, fears, moods, and mystery. It is elusive, paradoxical, and ambiguous. This mode of perception is conscious of its unconsciousness and can recognize the potential latent in the unknown aspect. It could be characterized as "illuminated lunacy."

Anima-consciousness is that mode which is appropriate to experience in the astral plane and astral body. The realm of imagination is psychic reality. Anima-consciousness is a multi-centered polytheistic perspective (thus a pagan orientation is appropriate to Lunar Magic). Its concern is being-in-soul not becoming. It is perceived as a coincidence of processes. All phases of the eternal cycles are present at once, enfolded in any part of the whole. It is experienced as a series of superimposed images. It is reflective and concerned with inter-relationship rather than analysis. It is diffused, not focused awareness. Anima mediates the unknown, or unconsciousness. It forms a bride to the day-world consciousness.

The Anima serves as a mediatrix for consciousness. She mediates between the personal and collective, balancing the actualities of daily life with the realities of the beyond. She bridges

the individual conscious horizon and the primordial realm of the imagination. The feeling developed through this soul-making process is more impersonal than personal.

As the Great Goddess, Anima or Psyche represents the archetypal containing vessel. In current psychological thought, consciousness itself is seen as more appropriately based upon anima than upon ego. The ego and its developmental fantasies never were the foundation for consciousness. Consciousness refers to a process having more to do with images than will. It is reflection rather than control, with a reflective insight. Therefore, consciousness arising from soul derives from images and can be called imaginal. It looks to myth as it manifests in dreams, fantasies, and life patterns.

"Becoming conscious" now takes on new meaning. It means becoming aware of one's fantasies and recognition of them everywhere. They are not merely in a 'fantasy world' separate from 'reality'. The aspirant can analyze by means of fantasies and then translate reality back into fantasy images.

Personifying is an effect of the anima archetype. Libido (psychic energy or prana, life force) can only be apprehended in a definite form. It is identical with the fantasy images. The Holy Guardian Angel's individuation into a distinct personality is precisely what soul-making is about. If you personify the Soul in the form of the Great Goddess, Anima, or Psyche she will act as a soul-guide on the inner planes. Anima consciousness now means seeing, listening, attending all shift from the gross attachments of the material plane to the shining and transparent resonance of subtle astral forms. This meeting of soul with Soul is what the astral plane is all about.

'Psychology' is composed of psyche and logos. It is an interaction between anima and psychological intellect. The logos, or spirit principle, gives speech to psyche. Psychology is the speech of the soul, which combines both lunar and solar components. It would seem that the airy quality of Yesod and the building of an "astral body" are not irrelevant in psychology.

The secret and key of psychological work requires the airy imagination of soul, that is, the capacity of imagining events "outside" of the natural bodily perspective of empirical and material literalism but in regard to a subtle or fantasy body of psychic reality. Being-in-soul requires being in a body too, but this body is built of soul stuff; it is a "breath body." Fantasy images are this stuff, this "subtle body." The key to the entire psychological opus...is body-building via imagination. (8)

This body building is a creative act of fantasy. Within it, the many do not become one but become psychic material. An example of this process is memory (also an attribute of Yesod). Anima and matter unite when psychic experiences (9) are encoded in the brain cells of the physical body.

Lunar consciousness runs the cyclic gamut from the bright diffuse light of full moon through the half-darkness, to the blackened nature of the dark of the moon. Its nocturnal quality and lower luminosity don't make it any less powerful than the solar influence.

INSERT PICTURE QUEENS OF HEAVEN

(1) The Great MOTHER or Virgin Goddess

Whether she is known as the White Goddess, Great Mother, or Virgin Isis the Great Goddess is the symbol of the archetypal Feminine. Her image is inexorably linked to the Moon and the death-rebirth cycle. The worship of the Great Goddess was common in the matriarchal agricultural groups of the Mediterranean and Near East. All the later goddesses of the Greek pantheon are contained in this universal symbol of the Earth Mother.

The Goddess is associated with the vegetarian cycle and the processes of agricultural life. She rules the domestic area of life as well as nature. Her primary characteristic is fertility. This fertility extends to the fecundity of imagination. This feminine goddess is single in essence, but displays many forms.

To the Egyptians, this Great Goddess was known as Isis and her worship continued into the period of rulership by Imperial Rome. At this point the religion became a mystery cult. This cult is described in detail in *The Golden Ass* of Apuleius, which includes the tale *Eros and Psyche* which describes the psychological development of feminine consciousness. The initiation procedures of this mystery cult involved a voluntary ritual death and revival. The Isis Mysteries were the same as the Eleusian Mysteries in honor of Demeter/Persephone. They celebrate the immortality of the mother/daughter relationship.

Isis embodies all contrasts. Like the moon, she is light and dark, life and death, beginning and end. This Great Mother is the matrix of all manifestation perceivable by man. The whole life of man is governed by the goddess, Mother of all-that-exists. Isis worship even persists in the modern Christian world through the cult of the Virgin Mary.

Even though matriarchal consciousness characterizes the spiritual nature of woman, it also exists in men who allow their anima consciousness to manifest. As she is the source of creative inspiration, the hunches of instinct and intuition, and the raw life energy itself, it is an advantage for men to establish a harmony with the moon power. She counsels meditation, contemplation, waiting and watching, dreaming, and remembering.

Matriarchal consciousness focuses around growth and transformation. In this mode understanding has the meaning of a "conception" and the metaphors of pregnancy and birth are common. The knowledge revealed by the goddess is not one of imparted truths but the personal experience of transformation. She encourages participation. When rational over-achieving ego-consciousness has run its course, quite, reflective lunar consciousness emerges to cool the fires of the spirit. The feminine image holds the keys to experience of the inner planes for both men and women. This is shown in Qabalah by the fact that the two highest paths of the Middle Pillar correspond with the Moon. She rules the transformative mysteries of initiation.

As initiatrix, the Goddess progressively educates the emotions of the aspirant. Magickal training of the image-making faculty is the beginning of a new way of using the mind. One may become self-initiated into the Moon mysteries through careful attention to the stirring of subconscious memories. There is much to learn through psychology concerning the lunar aspects of the soul. However, the magickal working of Yesod brings a personal

relationship to the Goddess which manifests far more than one could ever understand through psychology. The imaginal construction of the personified form of the soul enables a linking between your consciousness and the subtle matter of the Great MOTHER's Soul.

The dual nature of the Goddess is shown by her two characters. Her elementary nature has both a positive (good) and negative (bad)! She is pictured either as all-embracing protectress, or alternately as the devouring Terrible Mother. Her transformative nature also carries good and bad imagery. She not only governs cyclic rebirth and inspiration, but also the mysteries of intoxication, madness, and death. The negative characteristics are symbolized by the Dark Moon, and the positive are symbolized by the bright Full Moon.

The Great Goddess appears in tandem with her Son-Lover. His death and rebirth are symbolic of the cycle of the seed in the ground and the masculine counterpart of divinity. She is soul. He is Spirit.

The stages of the Feminine Mysteries remain valid psychological milestones in personal experience even in modern life. The worship of the Great Goddess involved a period of contemplation in her temple, religious prostitution with a man who represented "masculine divinity" in an impersonal ceremony designed so the woman experienced a surrender to her instincts. This sexual union was considered a sacred marriage, but it was a wedding which resulted in the "death" of her former condition. But, miraculously, she is transformed into the pregnant Moon Mother, filled with the divine Spirit. This magickal child grows slowly in an organic process which had its initiation at the conception of the child. It is a process which takes place in the dark subconscious, far from the eyes of men.

With the birth of the virgin-born child, the symbolism switches from that of sexuality to that of maternal solicitude. This birth is the woman's spiritual rebirth of her hidden potentialities. Because of her dual nature, she does not remain exclusively compassionate, but turns fierce and intolerant when it comes time to sacrifice this child. What is sacrificed is her incestuous identification with him. Any man must touch upon the depths of his own emotional intensity, not continue to require this from his mortal mother. Each facing this emotional intensity is the second stage of initiation to the Goddess, the impersonal aspect of the Feminine.

The period of the Virgin's Pregnancy corresponds with Yesod. In this period she is One-In-Herself. As Virgin, she is represented by the crescent moon. She is a divine power in her own right. With the incorporation into her body of the masculine solar-seed, she embarks on Path 25, Art, which represents the harmonization of lunar and solar components of the psyche. This results in the birth of the magickal child, his divinity revealed, his demise immanent. Child, King, and Sacrificed God are all symbols of Tiphareth, Sphere of the Resplendent Sun.

Moving past Tiphareth on Path 13, The High Priestess, we are again the realm of the Virgin Goddess, but this time she confers the gifts of potential revealed as the Full Moon, knowledge of the unconscious as past and future. Entry into this timeless realm is the experience of immortality, the supreme inspiration of the medial Feminine. Here the priestess of the Moon appears as sibyl, or wise old woman. Moving further through the

cycle of woman's ages, the waning crescent moon represents the old crone, full of arcane lore, elusive and sinister.

Thus woman's cycle moves through organic biological changes from untouched virgin, to initiated sexually-active Virgin, to Mother, to wise old woman. This trinity was known in ancient Greece Goddess (Virgin, Mother, Hag). This divine being is the symbol of the Feminine Self, core of all being.

(2). The Syzygy: Anima and Animus

In the creation myths of many cultures, Primordial Wholeness divides into polarized aspects. The Syzygy indicates this archetypal coupling where one aspect is never separated from the other. In the "impersonal" aspect of lunar experience, the Great Goddess is never separated from her masculine Son-Lover. One implies the other for wholeness. They exemplify the soul-spirit relationship.

On the "personal" level of lunar experience we find the tandem of anima/animus. They are the contrasexual component each human carries within. These soul figures embody our latent capacities for expression and realization of the traits normally reserved for the opposite sex. Thus, the animus leads a woman to the outer world and promotes her ability in focused, rational thinking; the anima guides a man through the inner worlds of relationship. This is the level of psychological "complex" where there is a blending of archetypal realities and individual experience.

Thus, the imagery of anima/us is based in archetypal symbolism and in childhood memories of "significant others" of the opposite sex. This includes parental attitudes and behavior, grandparent's influence, sibling, first love, and cultural expectations and norms. Anima/us determines our conceptualization of the ideal mate, and is responsible for such phenomena as "love at first sight," and "star-crossed lovers." It takes the elements of fate and destiny and combines them in a personal formula.

Anima/us represents the balancing of masculine and feminine traits in the individual. This balancing is a form of coniunctio, or sacred marriage, a union which produces the magickal child which is the higher Self.

The animus is the masculine personification of the soul. He carries both a transcendent spiritual aspect and a personal aspect. He is shown in the magickal symbolism of Yesod: a beautiful, naked, muscular man. On the archetypal level anima/us is equivalent to the Taoist Yin-Yang concept, a system which embraces a non-combative play of opposites, a circulation of soul.

Anima/us are potential guides to the depths of the unconscious, forming a bridge to daily life. They are factors which transcend consciousness, so in a relationship which seems to have everything going for it, there can be friction (or "animosity") produced by unconscious forces operating below the surface. Most of these troubles stem from projecting the anima/us image onto our loved ones and maneuvering them into fulfilling our expectations. Internal conflicts come from the split nature of anima/us we experience in modern life. This revolves mainly around the gulf between the Spiritual and Sensual

aspects of the inner figure. A man experiences the split between holy Mother Mary and the erotic goddess of his dreams.

For example, the spiritual animus might be projected onto the figure of a wise old man, a ghostly lover to whom a woman goes in fantasy, or an idealized brother/sister relationship devoid of sexual options. The sensual animus might be imaged by darker gods of impersonal sexuality, phallic or obscene. In any event, the animus represents the woman's need for creative expression. The more fully she can manifest this trait, the better her inner relationship to the animus becomes. He provides her with inner light, not inspiration which is a function of her anima nature, core of her Self.

Anima/us excite those feelings of longing, awe, fear of the unknown, and incomprehensibility. The transpersonal power of love can appear as a possession by another, against which rational thought has no protection. Yesod is the experience of this emotional-sexual level and its projections, coupled with the exercise of discrimination between archetypal and personal.

(3). ARTEMIS - Goddess of the Moon; Ephesus

*Queen and Huntress, chaste and fair,
Now the sun is laid to sleep,
Seated in thy silver chair
State in wonted manner keep:
Hesperus entreats thy light,
Goddess excellently bright.*

*Earth, let not thy envious shade
Dare itself to interpose;
Cynthia's shining orb was made
Heaven to clear when day did close:
Bless us then with wished sight,
Goddess excellently bright.*

*Lay thy bow of pearl apart,
And thy crystal-shining quiver;
Give unto the flying hart
Space to breathe, how short soever:
Thou that mak'st a day of night,
Goddess excellently bright.*

Jonson's Hymn to Cynthia (Diana) from Cynthia's Revels

Artemis is a form of the Great Mother, and has archaic characteristics. She was worshipped throughout the Mediterranean. Her name is Oriental in origin (Artimis).

In Crete she was worshipped as Britomartis. Her other important cult sites included Arcadia and Ephesus. The Greek cult in Arcadia considered her a Kore, like Persephone, and she was even called a daughter of Demeter. Her major cult site was in Asia Minor at Ephesus where she was worshipped as the fecund, many-breasted goddess. In this area, she

was associated with the date palm. This symbolism is retained today in certain Tarot decks, where the High Priestess card, which corresponds with Artemis contains this tree. Even the advent of Christianity could not snuff out the old pagan cult. The cult of the Virgin Mary began in Ephesus and adapted much of the symbolism of the antique Artemis. Later, in Rome, she was known as Diana or Cynthia.

Paradoxically, Artemis ruled over wild animals, childbirth and the young. She protected the young, including humans because she had originally been their mother. However, the chief attribute of Artemis is that she is Virgin and Mother, simultaneously.

This attribute was especially prominent in Asia where the Olympian religion impressed on Greece through the Homeric Hymns was less effective in suppressing the ancient form of worship. Wherever she was worshipped, under any name, she is the All-Mother. In the earliest Greek religion, Artemis was an earth-goddess.

She may even have been parthenos, the Greek word which is usually translated "virgin". This could happen in more than one way. In the first place, there is some evidence that the word did not always nor of necessity have that meaning. It might mean no more than unmarried, not tied by any bonds to a male who must be acknowledged as master. There were priestesses as well as deities in pre-Greek and Oriental cults who lived like that, but without preserving their virginity. Indeed, to sacrifice her virginity might be part of a priestess's service, but she did not sacrifice her freedom to a male nor become his property, as marriage in early times would imply . . . It was quite commonly believed that virginity could be renewed periodically by a process of lustration . . . Later, as the more Hellenic notion of strict virginity prevailed, the attendant remained, but like Hippolytus, was vowed to chastity as was the goddess herself. . . At Ephesus her cult was carried on right through classical times in the old way. (10)

The Greeks adapted her paradoxical nature of dignity and abandon, uniting her character with their virgin huntress, who was also a goddess of nature and wild beasts. They could not ignore nor abolish the worship of the Great Mother with its matrilineal customs. Her cult was by far too powerful and deeply rooted in the Mediterranean psyche. If her agricultural rites, sexual emblems, and fertility aspects shocked them, they nevertheless felt it necessary to amalgamate this goddess into their pantheon. Whether chaste, or a goddess of fertility, Artemis is always Virgin, or one-in-herself.

Obeisance to Artemis continues within the Catholic church under the auspices of the Virgin Mary. The feast of the Assumption of the Virgin Mary on the fifteenth of August is derived from the great festival to Hecate the moon goddess of Greece, and that of Diana, her descendant in Rome. Even the prayers for the preservation of the harvest from destruction by early rains are continued.

Another major characteristic of Artemis is the cyclic lunar rhythm. Rhythms such as chanting, dancing, or drum beats facilitates passage from one plane to the next. It creates an altered state of consciousness. Dances in honor of Artemis were orgiastic in character. Eliade cites the proverb: "Where has not Artemis danced?" as meaning that her cult was so wide spread there were honorary dances for her everywhere.

Her connections with survivability are shown in her function as midwife. It is even legendary that Artemis was delivered from Leto first, and then helped her mother in the delivery of her twin, Apollo. Artemis is "the force that sustains our attraction to the primitive and the unknown. She can teach us how to make contact with the unconscious and survive. Artemis is energy: death-bringing energy, psychic energy, abundant energy, excess energy." (11) Artemis is adventurous and represents the tendency for striking out on one's own. Sometimes this occurs in mid-life, when one seeks retreat from the city, home, and family in solitude. Artemis represents the continual renewal of "daughter-mother-grandmother."

As Artemis-Hekate, she oversees magic. Artemis-Hekate and Apollo share a capacity for coming powerfully from afar. When invoked, they appear in their characteristic manner for their epiphany.

An example of lunar magickal procedure is given in Aleister Crowley's excellent occult novel, *Moonchild*. The magician Cyril has found a willing assistant in his efforts from a woman named Lisa. Her horoscope contains a powerful lunar influence, as his is mostly solar. A sister of the magickal order aids them both. She is a priestess of Artemis for some twenty years, and for ten of those has spoken to no man.

Lisa takes her oath of dedication, and is admonished to be strong in her will and abolish unsuitable thoughts which would disturb the gestation of the moonchild. Her virginity is then renewed through a rite of lustration and the rituals begin.

He had set up a small triangular altar of silver; and it was upon this that Sister C. and her disciples came thrice nightly to make their incantations. The ritual of the moon might never be celebrated during daylight . . . Upon the evening of Monday, after the adoration of the setting sun, Lisa was led to the garden.

There the hand-maidens unclothed her, and washed her from head to foot in the waters of the sacred spring. Then she put upon her a solemn oath that she would follow out the rules of the ritual, not speaking to any man except her chosen, not leaving the protection of the circle, not communicating with the outer and uninitiated world; but, on the other hand, devoting herself wholly to the invocation of the Moon.

Then she clothed her in a specially prepared and consecrated garment; it was a loose vestment of pale blue covered with silver tissue; and the secret sigils of the moon were woven cunningly upon its hem. It was frail but of great volume; and the effect was that the wearer seemed to be wrapped in a mist of moonlight.

What was the incantation like? We may well imagine it was one of fervor and madness of things chaste, remote, and inscrutable. "With the speed of a huntress the shape neared her, hid the moon from her, and she perceived the buskined Artemis, silver-sandaled, with her bright bow and quiver of light. Leaping behind her..."

Artemis was worshipped as Luna in Heaven, and invoked in Tartarus as Hecate. She avoided the society of men, and retired to the woods accompanied by her nymphs. She was armed with her bow of light and carried a torch kindled by the lightening of Zeus, so she could pursue the swift stag. The high mountains were said to tremble at the twang of her

bow, and the forests resounded with the panting of the wounded deer. After the chase, Artemis would hasten to Delphi, residence of her brother Apollo, where she would hang her bow and quiver upon his altar, and begin to dance.

What does Artemis mean to a modern woman, and what are her psychological values which persist throughout time?

The chief characteristic of the goddess in her crescent phase is that she is virgin. Her instinct is not used to capture or possess the man whom she attracts. She does not reserve herself for the chosen man who must repay her by his devotion, nor is her instinct used to gain for herself the security of husband, home, and family. . .She is essentially one-in-herself.

In the image of the Mother Goddess--ancient and powerful--women of olden times found the reflection of their own deepest feminine nature...Today, the goddess is no longer worshipped...But the law or power of which she was but the personification is unabated in its strength and life-giving potency. It is we who have changed. We have given our allegiance too exclusively to masculine forces. Today, however, through a religious cult, not even with a conscious knowledge of what they are doing, but through a change in psychological attitude. For that principle, which in ancient and more naive days was projected into the form of a goddess, is no longer seen in the guise of a religious tenet but is now sensed as a psychological force arising from the unconscious, having, as had the Magna Dea of old, power to mold the destinies of mankind. (12)

(4). THE ELEUSINIAN MYSTERIES (Demeter/Persephone, Isis, and Psyche)

The establishment of the Eleusinian Mysteries is related in the Homeric Hymn to Demeter. After the abduction of her daughter Persephone, the mourning Demeter traveled to Eleusis (near Athens), and took refuge by the Well of the Maidens.

She demanded that the local inhabitants build her a sanctuary there. After she was reunited with her daughter, she revealed her rites, and began teaching her Mysteries, including the cultivation of wheat.

The early history of the cult reports two types of initiations. One was concerned with the reunion of the goddesses; the other concerned the possibility of man's immortalization.

The Great Goddess has always been considered able to grant immortality to humans, but early initiates to the Eleusinian Mysteries were not granted immortality, but experienced revelations which assured the soul a blissful existence after death.

Eliade recounts how the symbolic death of Persephone had great consequences for mankind: "As the result of it, an Olympian and benevolent goddess temporarily inhabited the kingdom of the dead. She had annulled the unbridgeable distance between Hades and Olympus. Mediatrix between the two divine worlds, she could thereafter intervene in the destiny of mortals." (13)

Archaeologists established the colonization of Eleusis occurred in the fifteenth century. The Mysteries were celebrated for nearly 2,000 years. Because of social and cultural changes during this period, the Mysteries altered over time.

The Lesser Mysteries were celebrated in the spring, and formed a preliminary probation period for the Greater Mysteries conducted in the Autumn (Sept.-Oct.). Initiation was open to both men and women, providing they spoke Greek, had killed no fellow man, and had passed through the Lesser Mysteries.

The rites involved processions, sacrifices, dances, and songs. There were also secret rites in the Greater Mysteries, which remain shrouded in darkness to this day. The revelations must have been profound, for no initiate ever revealed them. A third stage of initiation was open to those who had been initiates for a year. It culminated in a supreme vision, the nature of which we may only guess. Attempts at reconstructing the rites have been made, but only fragments are available. Included were ritual fasting and imbibing of the sacred drink, or kykeon. What is known is that, after a sacramental meal (which could represent a sacred marriage like communion), the final vision took place in a dazzling light, and included an invocation of Kore.

The Eleusinian Mysteries opened a new religious dimension for the Mediterranean world. Through them, the initiate perceived a continuity between life and death. It opened speculations concerning the underworld which were suppressed by the predominant Olympian religion.

Demeter/Persephone became the most popular of Greek goddesses during this period, and initiation into her cult, guaranteed a sort of "adoption" by her. A major characteristic of the cult which became paradigmatic for most other Mystery cults was the strict emphasis on silence and secrecy. Thereafter, it became stylish for Masters to reveal their secrets only to their initiates.

The Egyptian Mysteries of Isis and Osiris:

In the 3rd Century B.C. Ptolemy Soter sought to consolidate his rule through the acceptance of a supreme divinity by both Egyptians and Greeks. He exalted Sarapis (a derivative of Osiris) and Isis. Herodotus assimilated these gods into the Greek Mysteries, where Isis was identified with the Great Mother, Demeter, and Osiris was the initiated individual who attained "salvation." For the Greeks, Osiris was also identified with Dionysus, who was also killed, dismembered, then resurrected.

Qabalistically, a Great Goddess like Isis has many attributes which have various correspondences, depending on the level of involvement. Aleister Crowley has determined several of these:

...a goddess like Isis might be given to Zero as conterminous with Nature, to 3 as Mother, to 4 as Venus, to 6 as Harmony, to 7 as Love, to 9 as the Moon, to 10 as Virgin, to 13 again as the Moon, to 14 as Venus, to 15 as connected with the letter He, to 16 as the Sacred Cow, to 18 as the Goddess of Water, to 24 as Draco, to 28 as Giver of Rain, to 29 as the Moon, and to 32 as Lady of the Mysteries (Saturn, Binah). (14)

In the Hellenistic period, the Mysteries of Isis provided a ritual rebirth as its central purpose. The object was for the initiate to become Osiris, raised from the dead by the magical power of the goddess Isis. Accounts of these mysteries are found in both Plutarch's *Isis and Osiris*, and *The Golden Ass of Apuleius*.

After fasting and meditation, the mystes took part in a mystery drama where he personified Set, or Typhon in the form of a red ass. He was tormented, and his lust and desirousness transformed through fully experiencing his instinctual nature. The deep religious intensity of the aspirant produces transformation and the identification with the dead Osiris. He journeys to Hades and sees the midnight Sun shining brightly, as well as the pantheon of Gods celestial and infernal. After this ritual death, he is raised by the power of Isis. Plutarch also identified Isis with Athena, in that the ever-changing veil of nature includes both growth and decay.

The Isis of Hellenistic times, as Nature and the Moon, was creator, mother, nurse, and destroyer, just like Demeter. She also embodied Wisdom, or Sophia; Osiris was Knowledge, Reason, and Logos. Through acceptance by Isis, the initiate caught in the instinctual level of passion and lust, is raised to a spiritual life.

The initiate believed the goddess Isis could prolong life beyond the term fixed by Destiny, or fate. But this process involved a metamorphosis by undergoing a voluntary, ritual death in order to obtain one's spiritual birthday.

Like the Eleusinian Mysteries, the first great public festival of Isis took place in Spring, when the Mediterranean navigation season opened. The second, the lamentation for and reanimation of Osiris took place October 29 to November 1.

The seeker Apuleius recounts his initiation, after abstaining from meat and wine for ten days:

Thou wouldst peradventure demand, thou studious reader, what was said and done there: verily I would tell thee if it were lawful for me to tell: thou wouldst know if it were convenient for thee to hear . . . Howbeit I will not long torment thy mind, which peradventure is somewhat religious and given to some devotion; listen therefore and believe it to be true. Thou shalt understand that I approached near unto Hell, even to the gates of Proserpine, and after that I was ravished throughout all the elements, I returned to my proper place: about midnight I saw the sun brightly shine, I saw likewise the gods celestial and infernal, before whom I presented myself and worshipped them. (15)

In the Egyptian Mysteries of antiquity, the Pharaoh was identified with Osiris after his death. But, through these Hellenistic initiations, the living individual became "Divinized," through the powers of the Goddess. Isis and Osiris are exalted to the rank of universal divinities of the highest plane, covering psychic space from the underworld to ascent to celestial heights. This Hellenistic interpretation of the old Egyptian cults reflects a "monotheistic" universalism typical of other suffering gods, including Dionysus and Orpheus. This Hellenistic mystery theology expresses the deepest Egyptian religious genius.

In recounting the tale of his experiences as an initiate, Apuleius inserts the tale of Psyche and Eros into his personal story. An evaluation of the meaning of this tale in the development of his relationship to his anima brings out the psychological value of these initiatory sequences. In the tale, Eros represents the reproductive passion, which is transformed through its relationship with Psyche. Psyche is an incarnated form of Eros' mother, Venus. Since she is mortal, she represents that part of Eros' anima which is closer to consciousness. Venus was jealous of Psyche because mortals began worshipping her beauty, preferring her to an abstract Olympian goddess.

In *Amor und Psyche*, the author Merkelbach points up an identification between Psyche and Isis, and Venus and Isis. One might think that the goddess, then, fights against herself. In a sense, she does. She protests because of the narrowing of her potential in a mortal form. Therefore, if Psyche is Venus in diminutive form, Eros actually takes part in a sacred marriage with his mother-daughter-sister. This repeats the old Egyptian formula. Psyche is a form of Kore, the mother goddess in rejuvenated, human form. Therefore, the Eros and Psyche tale is a variation of the Demeter-Kore myth.

For the female initiate, this myth represents the deepest experience of the female mysteries of the Self. For the male initiate, it means a progressive integration of the anima which then leads to an experience of the Self. While he is still mother-complexed, all the forms of the goddess are compounded in the figure of the Great Mother, and he is her eternal lover.

Venus is a synthetic term for feminine Deity, and includes aspects of Hestia, Demeter, Cybele, Isis, etc. The symbols overlap. This is because the life of woman is divisible into three primary forms: 1) Virginity, 2) Wife and Mother, and 3) Old Woman, or Hag. The Goddess Hecate combined all these forms in a tripartate representation. She is shown as an amalgamation of three goddesses: Kore, Demeter, and Hecate the Witch. Hecate corresponds explicitly with the Moon and its cyclic phases.

Phase 1 includes Artemis, Atlanta, Persephone, Hebe, Pallas Athena, and the virgin Sibyls. Phase 2 includes Venus, Demeter, and Cybele as well as Artemis of the Ephesians. Phase 3 expresses the dark, malignant nature of the moon.

Marie Von Franz describes the meaning of Psyche in the process of individuation. *"If we look at it from man's unconscious and what it means to him, the figure of Psyche seems understandable. She is the anima which we call the derivative of the mother image. The anima image of a man is generally close to his mother's image and his anima always has some characteristics of his mother complex, and is closer to consciousness than the mother archetype, in which he can integrate his experience of the female within and outside himself. It is his pattern of behavior to the feminine."* (16)

With a positive mother complex, a man is a puer eternus (eternal son) and a Don Juan-type lover of women. He lives in a strange fantasy of eternity, feeling someday he will be a great man, but never quite making it. With a negative mother-complex, the Don Juan can never deal with women as they really are since he is naive. He has not matured into the realization that there is a divine and banal side to love relationships. This paradox must be accepted. Venus is the mother-anima; Psyche is the anima uncontaminated by one's maternal image.

Venus, in her jealousy, sets several tasks for Psyche. The one which links her most closely to the Demeter/Persephone myth is her descent to Hades to get the box of beauty ointment for Venus. (Chapter 7, Tiphareth recounts the tale in more detail). Psyche is sent to Kore-Persephone who is a variation of Venus-Isis in her underworld aspect. She opens the box, and tries to secure the special "Beauty" for herself. This means the man's anima equates beauty with goodness, or he can't believe a beautiful woman is capable of wickedness. This is the old naïveté again, desiring a real woman to enact his anima projections. Psyche falls into a death-like sleep of unconsciousness...she is not "her-self." And Eros must come save her.

But it is a transformed Eros who appears for her. The Greeks corresponded Eros with Osiris, who taught men and women genuine mutual love. Eros is now a psychological symbol of the Self. But just at this point, Eros spirits Psyche off to Olympus, which means the initiate in THE GOLDEN ASS OF APULEIUS is not ready for the deep religious experience of the higher Self.

Further transformations of the man's relationship with his anima are required before he can experience the final Isis initiations. In these, Osiris is the secret ruler of the underworld, or a personification of the collective unconscious. He is much more than a simple vegetation-god.

When he is reborn as the Horus-child, he represents restored wholeness or totality. In QBL, Osiris is corresponded with Tiphareth, and he is the secret spiritual goal of the Isis Mysteries. Transformation from Yesod to Tiphareth occurs through the three initiations of the process. This passage from one psychic state to another produces a unification of the personality. It is produced through the image of one all-embracing Goddess. Isis is the symbol of the Self in feminine form.

A religious experience must be accepted in its totality, and therefore is lived as a lifestyle, publicly. But this does not imply telling one's inner secrets to everyone, producing inflation. The Self counsels one on the hiding or exposing of secrets.

The secret Self, Osiris, underwent various transformations becoming most important in the Hellenistic era. His conscious religious attributes increased and he became identified with the reborn human soul. The soul tends to fragment into several autonomous parts. Isis is the only divinity which keeps her unity. She is an emotional and feeling experience of totality which leads the way to conscious individuation. But one must become more than an intellectually interested philosopher, flirting with every system and mystical cult which comes one's way. This will not transform the divine inner nucleus.

Isis is the guide to the experience of oneness. The psyche is the only reality known through immediate experience. Isis gives meaning to suffering, and initiates the healing process. Man's fate is similar to that of Osiris. The religious pattern revealed in the mysteries was that first comes the realization of the anima (Isis, Yesod) and then of the higher Self (Osiris, Tiphareth). A positive relationship to the goddess produced psychological transformation in earthly life, which produced immortality analogous to that of the philosopher's stone or "diamond body."

The initiate Lucius-Apuleius returns to Rome, but has a dream which leads him to seek initiation into the mystery cult of Osiris. He is confused as he thinks he has already had this experience in the Isis Mysteries, but further transformations await him. In the Isis cult, he came to a realization of the anima or feminine principle. But the archetype of the Self has its own specific rites and principles, which he must experience and serve. The aloofness of the Olympian gods is transcended through personal experience.

FOOTNOTES

- 1. ontology: the branch of metaphysics dealing with the philosophical theory of reality, including consideration of the universal and necessary characteristics of all existence; also a particular theory of reality.**
- 2. Miller, Webb, Dickson; The Holographic Concept of Reality, Gordon and Breach Pub., (1973).**
- 3. Edward Sampson, Ego at the Threshold.**
- 4. James Hillman, Re-Visioning Psychology.**
- 5. Philo Stone, Re-Visioning Middle Pillar: the Torus/Twistor Model.**
- 6. Israel Regardie, The Middle Pillar, Llewellyn**
- 7. James Hillman, "Image-Sense," Spring, 1979.**
- 8. James Hillman, "Anima II," Spring 1974, (Spring Publications, Dallas, 1974).**
- 9. Psychic experiences encompass all the manifestations of the imaginal life: behavior fantasies, dreams, emotions, thoughts, convictions, etc.**
- 10. , The Greeks and Their Gods,**
- 11. Nor Hall, The Moon and the Virgin, Harper and Row, N.Y., 1980, p. 112.**
- 12. M. Esther Harding, Woman's Mysteries, Ancient and Modern, Harper and Row, N.Y., 1971.**
- 13. Mircea Eliade, A History of Religious Ideas, University of Chicago Press, Chicago, Vol. I, 1978; "The Eleusinian Mysteries", p. 290-301.**
- 14. Aleister Crowley, The Qabalah of Aleister Crowley, Samuel Weiser, N.Y. 1973, p.80**
- 15. Eliade, A History of Religious Ideas, Chicago Univ. Press, Chicago, Vol. II, 1982, p292.**
- 16. M.L. von Franz, A Psychological Interpretation of the Golden Ass of Apuleius, Spring Pub., Dallas, 1980, p. 76.**

3. Astrology and Alchemy

a. Secondary Progressions in Astrology

Secondary progressions are extremely easy to calculate with your natal chart and an Ephemeris for the year of your birth.

Simply look up the day of your birth, then count forward one day for each year of life. This conforms to the formula for secondary progressions 1 day = 1 year. This is an arbitrary, but useful, concept. Progressions measure changes in the relationship of the earth to the Sun. Thus, the first few months of life form an analogy to the unfolding of an individual. For example, say you are born at noon on August 1. If you are now 35, and wish to examine your secondary progressions, count forward in the Ephemeris 35 days to Sept 5 of your birth year. Calculate the chart by using the positions of the planets.

Pay particular attention to the new position of the progressed sun. Your sun has changed quality as you have aged from Leo to Virgo. Dane Rudhyar says the progressed sun depicts the "process of personality-integration" which carries on after birth. This maturing process leads to fullness of personality. The moon will change its sign in secondary progressions also. Mercury may change signs every 30 years or so, but the other planets will not change radically over a lifetime. They may, however, change their house positions, marking important life changes in personality or collective adaptation. All planets in progressed charts indicate systems involved in co-operating with the solar process of fulfillment.

Sun=integrative Will (personality fulfillment)

Moon=outer, concrete changes (cyclic phases of life)

Mercury=Attitude of mind to the Great Work of the Sun

Venus=emotional responses

Mars=power of spontaneous initiative

Jupiter=balancing, soul-revealing aspect of psyche

Saturn=lengthy transformative process changing structure of consciousness

Uranus=sudden, transforming effect of subcon. processes

Neptune=dissolving of limits imposed by ego (metamorphosis)

Pluto=possible death/rebirth experience

Each degree of the zodiac has a special symbol (Sabian Symbol) which may be contemplated during the year of the Sun's sojourn in that degree. Consult Dane Rudhyar's Astrological Mandala for these symbols and their meanings in psychic development.

Also, check the aspects of the Progressed chart, and read these as you would for a natal chart. The effect is simply more short-lived.

b. The Moon and the Lunation Cycle in Astrology

The luminous Moon has fascinated mankind throughout the ages. It is the focal point for lovers and lunatics, alike. Basically, the moon symbolizes a feminine, receptive attitude, and an emotional, fluctuating attitude. Negatively, the moon can indicate moodiness, and changeability.

Astrologically, the moon is as significant as the Sun, or Ascendant. It is given greater weight than the other planets, because its influence is felt so strongly in all aspects of life. As the moon moves through its 28 day cycle, it passes through several phases which define its ever-cycling relationship with the sun. Most people are familiar with the distinctions known as new moon, full moon, and quarter moon. There is really no such phase as half-moon, since half the moon is synonymous with full moon. Remember, the moon only shows 1/2 herself to us on earth; her other half remains hidden in dark shadows.

Astrologers distinguish even finer distinctions in the phases of the moon. These angular relationships to the sun are precisely defined. 1st quarter = 0 to 90 waxing degrees; 2nd quarter = 90 - 180 degrees; 3rd quarter = 180 to 90 waning degrees; 4th quarter = 90 to Dark of the Moon. In addition, there is a Gibbous Moon, which is a day or two before and after Full Moon.

For Magickal purposes, the new moon is not equivalent to "the dark of the moon." But actually begins when the crescent moon shows itself (waxing). All operations for psychological development are done during the 2 wks. of the waxing period, since a waning moon is considered to dissipate one's magickal effectiveness.

Robert Hand has described the core meaning of the Moon as an astrological influence:

Yin: Container, medium, environment, matrix, womb, mothering, home; subjects as opposed to their rulers. One's Ultimate Source; the Great Mother; personal past, childhood, heritage, family, heredity, homeland; unconscious assumptions and attitudes, instincts, hereditary mental patterns, psychological patterns due to infantile experiences, emotional reflexes or programs, psychic perceptions. (1)

The moon's placement indicates either feelings of belonging (positive) or alienation (negative). We are contained by the formative principle of the universe, and our adaptation to our environment reflects in our personalities. Understanding of our lunar aspects, which are largely unconscious, comes through feelings and emotions.

Emotions function like reflexes, and are barely influenced by logical thought processes. In this manner, they function like instincts. Many psychics describe their perception of information as a "feeling" or awareness. They are in touch with the continuum where "all is one." This sensitivity to connectedness is a lunar quality.

The moon symbolizes patient waiting, or "creative submission" to the fulfillment promised by cyclic processes. It is as important and effective as the sun, but in a less-obvious and obtrusive manner. The influence of the moon reflects into daily life, forming the matrix of personal and collective history. Through its ability to calm or incite the emotions, it influences the course of events on a grand scale. It influences behavior as much as the logical thought processes of solar-consciousness.

c. Luna and the Albedo in Alchemy

Luna represents the feminine aspect of the arcane substance. As we have seen, she is linked to salt, to "white sulphur," to silver, to the albedo, the feminine alba of the coniunctio. She represents the cold, moist, corporeal, receptive but not at all inert feminine principle in the psyche, and appears as sister, mother, and bride of Sol. she is the "vessel" of the sun, receiving and pouring out the powers of heaven, extracting the energy of Sol as a power springing into eternal life. She provides that sense of serene undulating movement, like the moon's path on the night sea, and that gentle and serene and soothing nocturnal light that enables us to see in the dark, when the sun's power has set. When Luna is at her fullness - at the plenilunium - she stands as the nocturnal complement to masculine diurnal consciousness.

--Robert Grinnell/*Alchemy in a Modern Woman*

The Albedo is that stage of the alchemical work which is a phase of "whitening" and "lightening" after the black depressive phase of the Nigredo. It is the emergence of the feminine aspect of the Self or Holy Guardian Angel. the Albedo presages the flowering of fulfillment. Moonlight indicates that state of consciousness where one begins to react emotionally to unconscious contents. In this phase elusive intuitions and spiritual potential are made manifest.

Corresponding with Yesod, the Albedo is the first goal of the alchemical work, reuniting a world divided into "mind" vs. "matter" through the medium of psychic reality. Relevant symbols include the madonna, bride, moon, dawn, and dove.

Experience and experiencer no longer matter as the "images that yet/fresh images beget" release one from the nigredo of personal identity into the mirrors of impersonal reflections. This second whiteness is also not mere ignorance, a disregarding insouciance of the world and its ways, which results from psychic realities taking precedence over more earth-bound perception that attempts to resolve psychic difficulties either away from the world or into the world. Albedo prefers neither introversion nor extroversion, since the differences between soul and thing no longer matter, that is, are no longer imagined in the material terms of the nigredo. . .the albedo is not only a state between but a condition per se. (2)

Hillman calls this lunar stage of the albedo "the emergence of psychological consciousness, the ability to hear psychologically, and to perceive fantasy creating reality."

It is this sense: that all occurrences must first be imagined, that they begin as images, that the very cycle through which anything turns, including ourselves, is a psychological process, that soul fantasies are the ground and seed in all we think and do, want and fear. . .the subtleties of soul are embodied in the mundus imaginalis by primordial persons, eternal archons, angelic essences who offer human consciousness a grounding in hierarchical principles, enabling a human being to recognize what is essential, what comes first, and what is of lasting worth. It is a place of truth. (3)

4. Orientation/Exercise

a. Some Thoughts on the Phenomena of Astral Projection

SOME THOUGHTS ON THE PHENOMENA OF ASTRAL PROJECTION

By Richard Alan Miller, Physicist. 1974

The phenomena known as Astral Projection or Out-Of-The-Body Experience (OOBE) has become increasingly important to the research direction and study of the paranormal. An Out-Of-The-Body Experience is now defined as one in which the subject appears to view the external world from some position other than that of his or her physical body.

Traditionally in the field of Parapsychology Out-Of-The-Body Experiences are grouped into two main types, 'parasomatic' and 'asomatic'. The parasomatic type of experience is that in which the subject appears to himself to be located in a duplicate body, more or less resembling his physical body. In the second type of experience, the asomatic, the subject does not appear to himself to be associated with a body, rather he or she is just a disembodied consciousness or a 'pin-point of presence'.

It is important at this point to consider the definition used. Namely, once a structure or classification is structured, the way in which the data is gathered immediately sets up limits in which the phenomena can be studied. It would seem almost unnecessary to point out that the "mystical tradition" underlying most of the major religions have certain similarities. In surveying these coincidentals, the phenomena of astral projection is one of the most overt.

Psychical phenomena exert a strong influence on the foundation of religious heritage. The appearance of astral projection among them is probably the most common of the various genres. As an allusion to Dr. Robert Crookall's classic, Study and Practice of Astral Projection, the late Professor Hornell Hart states: "Initiates into ancient mystery cults clearly included the deliberate production of astral projection. . .Catholic saints and Quaker ministers have reported undergoing such projection." The Egyptian script Peret-emheru speaks of the Ba and Ka (often incorrectly thought to be analogous to each other), which are ancient suggestions of what we call the astral and fluidic bodies, respectively. Qabbalism also has a parallel. In the Zohar, reference to the silvery "astral cord" is made.

Referring to this allusion, A.E. Waite writes: "When the good soul is preparing to leave this world, and while it is suspended from the body only at the larynx, it beholds three angels to whom it must confess its sins." Even Christianity is not exempt from this phenomena. St. Paul's description of the astral body and the Old Testament reference to the astral body are classics (1 Cor. 15:44, and Ecclesiastes 12:6), and the appearance of Peter's double before Rhoda may be found in Acts 12:14-17 (A.V., King James version).

One of the most significant esoteric scripts discussing astral projection is the Bardo Thodol, somewhat incorrectly translated as the Tibetan Book of the Dead. The Bardo Thodol states that the initiate, during the altered state of consciousness, can produce mind-body separation. This seems to have a bearing on those prolific instances where LSD voyagers (who experience a journey very close to the bardo trip as described in the Tibetan Book of the Dead) appear to have such projection experiences. One such incident was related to the

author by an LSD user who, during the trip, discovered that his consciousness was not in his body, but next to it.

The most asked question about the out-of-body experience is: How does one know that they are simply not dreaming? A more fundamental question to ask, however, would be to counter-question: How does one know that the waking experience is real? To answer the first: the subjective out-of-body-experiences differ from the typical dream state principally in the following ways:

- 1) There is continuity of some sort of conscious awareness.**
- 2) Intellectual and/or emotional decisions are made during the experience.**
- 3) Multivalued perceptions occur via sensory inputs or their equivalents.**
- 4) There is a non-recurrence of identical patterns.**
- 5) The experience of time duration, based on long-term memory.**

The most certain statement that can be made by the subject is that when the condition exists, he/she is as aware of "not dreaming" as when he/she is awake.

Dr. Robert Crookall has advanced a theory linking astral projection to survival. He agrees with Professor Hart that the survival of the human personality after death is nothing more than the permanent projection of the astral body. He sees various degrees of projection involving two distinct portions of the human psyche. One, he sates, is conscious but immaterial. The other portion is unconscious and, although immaterial, has some objective existence. In OOBEx either or both of these portions may be projected.

Dr. Crookall's beliefs have some interesting parallels in the Ba and Ka concepts of the ancient Egyptians. They believed that the Ka was a "double" of the individual and that it was composed of very tenuous matter. It was supposed to live for some time after death and both the process of embalming and various funerary practice were intended to ensure that it lived on in the tomb. If the required practices were neglected the Ka was thought to emerge from the tomb to haunt those responsible.

The Ba was the soul of the Egyptians. It was conscious but immaterial. In life it was contained within the Ka. In death it left both the Ka and the body. There is some scientific evidence to support this concept. Dr. Duncan McDougall of Haverhill, Mass. arranged to have dying patients placed on a sensitive weighing apparatus. He found that there was a weight loss of from two to two-and-a-half ounces at the moment of death. The data could not be explained except in terms of something having left the body. Two Dutch Physicists, Dr. J.L.W.P. Matla and Dr. G.L. Zaalberg Van Zelst report similar observations and data. They further reported that the proposed "astral body" appears to have a specific weight of 12.24 mg., that it responds to gravitation, and that it appears to be composed of particles that are small, heavy, but very widely separated.

Dr. Charles Tart, University of California at Davis has been conducting bio-physical measurements on individuals who can astrally project at will. His research indicates that

out-of-body-experiences occur in conjunction with a non-dreaming, non-awake brain wave stage characterized by predominate slowed alpha activity from the brain and no activation of the autonomic nervous system. OOB experiences seem to occur during a rather poorly developed Stage 1 pattern of sleep which was dominated by alphoid activity and often mixed with transitory periods of wakefulness. This alphoid activity was always one to one-and-a-half cycles per second lower than normal alpha rhythm. There seems to be also no REM (rapid eye movement) accompanying these experiences. It is concluded that it is in the hypnagogic state where OOB experiences occur.

There is one sleep study by Drs. Lester and Guerrero-Figueroa in which considerable alphoid activity was reported in the sleep records as a result of chlorpromazine administration. Chlorpromazine is a fairly commonly used tranquilizer known under the trade name of Thorazine. It is now being speculated that drugs which tend to slow alpha frequency might promote OOB experiences, and this could be a possible fruitful line of experimental inquiry.

The author has experimented with a number of available legal herbs and found that Jimson weed when smoked works quite well for inducing OOB experiences with persons untrained in the technique. Care must be taken with this herb as it belongs to the Datura or night shade family. The active constituents are scopolamine, atropine, hyocyamine and other tropanes. If ingested, as reported by numerous Indian tribes of the Southwest, the herb can be quite toxic. It is recommended that only one to two grams be smoked at one time and prolonged use is not recommended. The herb has also been called thorn-apple or loco weed.

Religion has been defined in terms of a commitment to something beyond the self (Garnett, 1942). Thus, the religious experience can be one of man's most meaningful life adventures. This powerful and profound experience is often associated with levels of awareness similar to those aspects of human existence perceived as "creative", "religious", "mystical", and/or "paranormal."

The Western world has institutionalized religion and has codified religious dogma while neglecting religious experience. This neglect has many roots, among them would be Plant's emphasis on reason to the near exclusion of feeling, Aristotle's division of philosophy into science and metaphysics, St. Augustine's separation of the "body" from the "mind", as well as Descarte's division of man's inner life from his outer life.

These divisions run counter to reports of the religio-mystic experience which, at its most profound, involves the subjective feelings of an integration of man's total being with the universe about him. Dr. Krippner and Dr. Ullman at the Maimonides Dream Laboratory have indicated the feasibility of experimentally inducing dream patterns telepathically. They indicate that a person sleeping is open to impressions and thoughts of others about that person, that these impressions can be and are incorporated into the main body of the dream experience.

Daily experience touches on various unresolved conflicts from one's past, arousing unconscious feelings and wishes and memories to a preconscious level. Dreaming integrates and again makes unconscious the aroused feelings, wishes and memories from the past,

along with those aspects of the recent experiences which have stimulated or touched upon the material from the past. In the dream process, each person uses his characteristic defense to deal with the particular aroused feelings and impulses. If the new experiences are growth-promoting in nature, i.e., correct previous distorted wishes or fears, a modification in ways of dealing with the previously unconscious material may result when the dream brings the new experience into relation to the past. Thus, dreams can be used to predict future events in that they program attitudes and behavior patterns.

In light of the above, a new model for the nature of consciousness begins to develop. Astral projection apparently requires an altered state of consciousness similar to Stage 1 of sleep. There also appears to be some very subtle but important differences between Stage 1 of sleep and that required for an OOB experience. Those differences can be discussed physiologically, vis. the EEG, the tape recorder, the rating scale, statistical procedures and the like. However, with some of the new research available, the concept that the brain is a transducer of information becomes useful.

Dr. Gowan's work at the University of California at Northridge on the Collective Preconscious indicates that there is a possible body of information or knowledge which is available with slight adjustments in tuning, or alteration of consciousness. This concept could be applied to such ideas as pre-natal memory, language and other observed paranormal phenomena. This body of information is a universal one which does not require a time/space co-ordinate system, rather it functions on a more holistic level as the dream telepathy studies might indicate. Astral projection appears to require a state of consciousness which does not use a space/time co-ordinate system. Rather, OOB experiences are those where space and time are not critical for the assimilation of information. The point seems to go back to the occult concept that your awareness is everywhere, but your consciousness is a limited or special case of awareness.

Astral projection is apparently a special case of ESP (extra-sensory perception) where the information is brought into consciousness via certain special co-ordinates, i.e., OOB experiences. The real point is that the information was already present but needed some mechanism to be experienced on a conscious level. The development of those mechanisms over other possible ones available form the new field called Noetic sciences. The real issue or question which now arises is: Why have we chosen a particular co-ordinate system over another to call this system a "normal" astral projection, religio-mystical experience, and dream state as deviant from a "normal" state may hold the key to another stage in the development of Man.

b. Ritual Timing and Seasonal Tides

According to Magickal tradition, there are times for planning and times for doing. To obtain optimal effects in any working, the magician cooperates with various tides. This amplifies his effectiveness. This is not a fantasy of "control", but a matter of fine-tuning one's work through development of responsiveness to patterns. When one makes use of various "astral currents" one "goes with the flow", so to speak.

There are three major types of current to which magickal effectiveness is subject. These include the Solar cycle of seasonal change, which is of annual duration; the lunar or

monthly cycle is approximately 28 days long; and the circadian cycle of geomagnetic forces which influence individual behavior.

Solar Cycle: The equinoxes, as most people know, are times of equal day and night (when each ar 12 hours long). More precisely, they are defined as the two imaginary points in the heavens where the celestial equator intersects the plane of the ecliptic. The plane of the ecliptic is an imaginary plane extending through the center of the Sun, the orbit of the Earth, and beyond to the band of the Zodiac.

It is therefore the apparent path of the Sun on the celestial sphere. The celestial equator is an extension on the celestial sphere of the Earth's equator. Since the Earth's axis is inclined 23 1/2 degrees, the celestial equator is inclined 23 1/2 degrees to the plane of the ecliptic. At two points they intersect: the vernal and autumnal equinoxes are the times of equal day and night.

The great religious holy days of all faiths tend to cluster around the times of these equilibrated periods. Why? It is not known, but traditionally there is the belief in "tides" which flow through an unseen ether or medium, known variously as prana, or the astral light. As the Earth revolves on its axis, and also travels at the same time around the sun, centers of stress are set up in the electromagnetic sphere of the earth (this includes the effect of solar winds on the ionosphere and gravitational forces influencing the earth). On any part of the earth's surface, a positive current flows from East to West, in the Astral Light. So, there is a steady current, or tide, in the magnetic field of the earth which is linked to coreolis force. This coreolis force is known to effect individual organisms.

As the earth moves around the sun, a magnetic current passes from the north to the south during six months, then reverses flowing from south to north for the remaining six months. The "seasonal" solar tides are the most powerful influence on magickal work, and are classified as follows:

The Tide of Sowing: March 21 (Vernal Equinox) - June 21
This is the time to begin new projects; goal oriented.

The Tide of Reaping: June 21 (Summer Solstice) - Sept. 23
One receives the material rewards of the last cycle.

The Tide of Planning: Sept.23 (Autumnal Equinox) - Dec. 23
One experiences the spiritual results of what is sown.

The Tide of Destruction: Dec. 23 (Winter Solstice) - March 21
Old forms are broken up; time for study, introspection, meditation, contemplation, magical retirement period.

Throughout history, the vernal equinox has been considered a time of rebirth; the resurrection of vegetation by the life-giving warmth of the Sun signifies new beginning...Spring. It is considered to be the most significant seasonal change in its impact biologically, psychologically, and sociologically. "Spring fever" can be considered a psychological repercussion of the biological surge in growth hormones in the human body.

Whole societies undergo tremendous change during these periods. What biological mechanism can account for this change?

The answer may lie in the study of the pineal gland, also referred to as the "third eye." The pineal gland was found to produce a chemical neurotransmitter called serotonin (similar in structure to LSD-25), according to a regular oscillating beat, the basis of this beat being the so-called circadian rhythm. It has been found that the pineal responds somehow to environmental light conditions, and that by altering light conditions one can extend, contract, or even stabilize the chemical production rhythms of the pineal.

The fact that the pineal responds to light, even if this response is indirect via the central nervous system, has some fascinating and far-reaching conceptual applications. There are many behavioral changes which overtake animals as the seasons change, and which can be produced out-of-season in the laboratory by stimulating the appropriate span of artificial daylight. Do such seasonal changes in mood and behavior persist in humans?

As indicated before, the great religious holy days seem to cluster around the 4 great divisions of the solstices and equinoxes. Is it possible that the human pineal gland (which is considered by some merely an atrophied relic of the past) still responds to these alterations in the length of daylight? Changing the balance of neurohormones in the brain may perhaps effect a greater incidence of psychedelic states (mind-expansive altered states of consciousness) in certain susceptible individuals just at these crucial times. This possibility provides an entirely new approach to our secular understanding of the religious experience, at least as it is mediated through biological factors.

The pineal gland has thus been referred to as a kind of biological clock, one which acts as a kind of coupling system perhaps maintaining phase relations within a multi-oscillator system; a phase coordinator for multiple biorhythms. The pineal is a "cosmic eye"; it is aware of celestial rhythms not observed by the normal eye, like seasonal and lunar changes rather than daily ones. It helps manipulate the body's chemistry in harmony with seasonal changes. Serotonin can be seen as the "intensity knob" of the brain. As the level of serotonin increases, so does the level of activation of the cortex.

Equinoxes and solstices are symbols of the Death/Rebirth archetypes from individual to cultural levels. The concept of world changes in outlook and sociology from Age to Age is derived from the phenomenon of the precession of the equinoxes. The volition of consciousness from the Age of Pisces to the Age of Aquarius may be even a more subtle manipulation of this pineal gland, the so-called "third eye." A good meditation for the Vernal Equinox was expressed by Dane Rudhyar when he stated: "Every living whole is a chord of relationships. The resonance of this chord is what we call 'consciousness'."

Lunar Phases: New Moon-perform no magick during the dark of the moon. First Quarter concerns impregnation, inception of projects and growth, or gestation. The Full Moon contains the greatest magickal power, especially in the fall with harvest moon. Waning Quarter Phase is less powerful and is for internalization.

Circadian Rhythms: Produced through the interaction of geomagnetic forces with the individual. This hourly fine-tuning is reckoned from sunrise. There is correspondence of

the astral tides with the elements which repeats its sequence approximately every two hours: Spirit, Air, Fire, Water, and Earth; Spirit, Air, etc.

For optimal results, the aspirant combines "know-how", and "know-when."

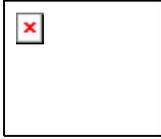
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3. Ibid.



HOD

Title: Hod, Glory

Magical Image: A Hermaphrodite

Position on the Tree: At the base of the Pillar of Severity

Yetziratic Text: *The Eighth Sephira is called the Absolute or Perfect Intelligence because it is the mean of the Primordial, which has no root by which it can cleave or rest, save in the hidden places of Gedulah, from which emanate its proper essence.*

God Name: Elohim Tzabaoth

Archangel: Michael

Order of Angels: Beni Elohim, Sons of God

Planetary Correspondence: Mercury

Spiritual Experience: Vision of Splendor

Virtue: Truthfulness

Vice: Falsehood, Dishonesty

Physical Correspondence: Loins and legs

Symbols: Names, Versicles, Apron

Tarot Cards: The four Eights

Color: Orange

Introduction to Hod

Hod is the first Sphere encountered on the ascending Path of Return on the Tree of Life which deviates from the central Middle Pillar of Consciousness. It lies at the base of the Pillar of Severity, and indicates a mode of self-expression. This is in direct contrast to its balancing Sphere, Netzach, at the base of the Pillar of mercy, which exemplifies the action of the non-ego.

Since this Sphere is corresponded with Hermes, or Mercury, the roots of this mode of self-expression are found in Hermetic Philosophy. Though the oldest extant texts of popular Hermetism date back to the Third Century B.C., its roots may be far older. Hermetic philosophy seems to have developed in Egypt, and its mythology supports this view.

The god, known as Hermes in the Hellenistic period, was called Thoth in ancient Egypt. He is patron of sciences, writing, mathematics, and he was a master magician. As the dispenser of the highest Wisdom, or the Logos, Thoth is corresponded on the Tree of Life with Chokmah. But as scientist and keeper of records, he is attributed to Hod.

Hermes-Thoth is accredited with categorizing the "secrets of nature," and is the father of the system of analogies used in QBL, known as the correspondence system. These sympathetic relationships among varying planes of the cosmos give the magician "control" over his environment. Because Hermes revealed this "secret" network, Hermetic science is initiatory in nature, as is the revelation of any God. It is a Mystery which one must enter in order to attain its specific experience.

The value of Hermes-Thoth's revelation extended past the Hellenistic period, and was highly successful through the Middle Ages and up to the time of Sir Isaac Newton, and his scientific revolution. The value of the Hermetic viewpoint, with its correspondences between Macrocosm and Microcosm, was rediscovered in the 19th Century "magical revival."

Hermes-Trismegistus, or Thrice-Great Hermes, is said to be the author of the bulk of Hermetic literature, including the famous Emerald Tablet containing the basic Hermetic Axioms, (such as "That which is above, is like that which is below."). Hermes Trismegistus may actually be a composite character, synthesized from the personalities of several magicians. It may represent a lineage, rather than a single individual.

Hermetic Philosophy is dualistic, devaluing the world and the body. Its chief aim is for man to "become god" through the aid of divine knowledge. The aspirant detaches himself from the world and is regenerated in an

immortal body. The theology underlying this view is Gnostic in character, but it is not equivalent in all respects with Gnosticism.

The gnostic worldview is characteristic of the historical period, during which Hermetic Philosophy flourished. The "saving value" of Hermetic science through the development of an immortal body is similar to Asian and Persian traditions, and later developments in Christianity.

Hermetic initiatory practice was not hierarchical in nature. There is only one degree of initiation: either you heard the Word, or not. Its major injunction was the rule of silence, keeping the revelations secret from outsiders. It also incorporated certain ecstasy-inducing practices.

However, the main basis of the initiation was the revelation of the Gnosis through a certain number of revealed texts. If you read, understood, assimilated, and applied this esoteric knowledge, you were "initiated." Initiation did not specifically require lineage, or the tutelage of a master in the art.

Consider a modern example in the sciences. Say for some reason, all houses of higher learning suddenly vanished, and the compiled wisdom of science was lost to the world, temporarily. An intelligent person finding a compendium of information on a given science might become proficient in its application, even without a Professor to show the way.

This autotelechy or self-teaching is part of the Hermetic path. In this sense, the writings of Hermeticism and alchemy are similar. If it is rediscovered by a competent aspirant, the directions may be applied in a contemporary manner, so its message is highly relevant. Hermes is the embodiment of universal wisdom and intelligence. He is the epitome of analytical thought and reasoning logic. His cult-forms survive in the Masonic and Rosicrucian traditions.

Hermetic arts include astrology, alchemy, writing, mathematics, architecture, invocations, and other priestly arts. The "Way" to salvation through Hermetic Arts is synthesized in the pictorial Book of Thoth. It is the revelation of the archetypal symbolism contained in our modern Tarot cards. The origins of these cards is lost in antiquity. But one thing is certain, in symbolizing the Path of Return, they embody a series of transitions which is definitely Hermetic in quality and character. Hermes, himself is depicted in the Trump entitled The Magus.

The Inner Companion or Soul-Guide

Both Hermetic Philosophy and alchemy sought the inner experience of the daimon or "companion" who shows the way. This inner figure was held in religious esteem comparable to that of the inner guru or higher Self. Hermes, as soul-guide imparts his secret wisdom in a state of ecstasy. He lifts one into the special world of the spirit where one is bathed in Nous and becomes divine. Hermes in this sense is both a cosmic and personal guardian spirit. He embodies a paradox which means he is a symbol of the Self.

The equivalent soul-guide for a woman frequently appears as the earth-mother goddess, or mother-virgin paradox. This mystery of the goddess of Nature is associated with Hermes. Like Hermes the all-mother possesses dark characteristics including cleverness, cunning, cruelty and unfathomable passion.

As the aspirant contemplates Hermes as soul guide, he is transformed into the inner teacher, who embodies the whole cosmos. This is a process of progressive internalization of those qualities. The personality is confronted with the necessity for transformation. There is a deep and far-reaching change in the conscious attitude. This is a long and painful process for the ego, but ultimately produces detachment from the world's illusions.

Hermes functioned in Hermetic Philosophy much as the modern yogi. He was a way shower who pointed out that the world consists of our projections, and is only one reality among many. Hermes is not only a magician, but corresponds with the archetypal Trickster figure who spins illusions.

Hod represents the mental body, seat of the self-conscious objective mind. In modern terms, it is Left Hemisphere functioning--logical, analytical and above all interpretive. The object of mental practice here is to exercise healthy scepticism.

Here you examine to confirm or verify knowledge gained in Malkuth and Yesod by direct experience. We learn to perceive unity through diversity. For example, the synergetic meaning of seemingly unrelated symbols begins to become ingrained in us at the visceral level. When we perceive the essential nature of anything, we also perceive how it fits into the Whole.

Science has shown that the essence of the universe is the One Force, Light. It has shown that all natural forms reveal orderly, harmonious, geometrically identifiable construction patterns. Certain simple forms are perceptible throughout all the kingdoms of nature.

In Hod we learn to recognize patterns that occur and recur and correlate these patterns with the universal principles of which they are representations. This ability to recognize basic patterns, symbols in images and life is the key to real discrimination, the ability to separate the subtle from the gross.

To become identified with the Light of the Self, we must learn to focus the attention of our conscious mind. Imagery is the virtual matrix of form. This imagery must be controlled and directed to be valuable in our work. We can use our self-conscious ability to focus attention to initiate imagery which will link to with the higher self. One of these is simply to act as if you are that Self of Tiphareth. Consistent practice makes this easier as time goes on and builds an identification without inflation, because the personality learns the differences between itself and That.

Practicing identification and disidentification with the Self is a potent transformational exercise. It is a process morph that is part of pathworking which will allow moving from the Astral to Causal once the body of light is congealed.

First become aware of this superpersonal level by recognizing it. Don't just mentally affirm that it is there--practice it. Mentally reach upward toward it. Visualize the light and concentrate to make it even brighter...limitless. Make yourself constantly aware of it in every detail of your personal life, leading the way, functioning much like an inner guide or guru.

It is an influx of tremendous power when you focus on it. This subtle awareness doesn't come all at once. So the exercise must be repeated until it is habit to recall your True Self. Remind yourself that you every mental state, act, thought, emotion is a transformation of superpersonal, superconscious energy. In Hod we learn to begin identifying with the Self, rather than the limited personality. Personality becomes the instrument for the Higher Self. It isn't perfect, but is becoming.

HERMETICISM

Hermetic philosophy was concerned with in-depth questions about the nature of life and the universe, an intimate personal relationship with God, and revival of the ancient wisdom of Egypt and Mesopotamia. Most of the texts are in the form of dialogues allegedly with such figures as Hermes Trismegistus, Asclepius, Isis and Horus. The dialogue format is easily accounted for since the core of these teachings come from Greek philosophers, such as Plato and Aristotle. The main texts include the *Corpus Hermeticum*, *Poimandres*, and the *Asclepius*.

The teachings are definitely mystical, in that man is said to combine a mortal and godlike nature. The Hermetic creation myth begins with Darkness and Light, which produce moisture and the other elements. Light is a Spirit (*Nous* or Mind) and gives birth to reason (*Logos*). The original spirit creates a demiurge, creator of the worlds of heaven and earth.

The Hermetics practiced a vegetarian lifestyle, as did the Orphics. They believed that at death (and in meditation) the soul abandons the body and senses and ascends to the spheres of the seven planets. Finally one enters the eighth sphere and comes before the Father and enters God, where all is one and the hierarchy is transcended. "*Whoever co-operates with God merits release from his mission in the world and a return to the godlike life of the pure spirit. Those who fail to do this are reborn after death in other forms.*" This echoes notions of redemption and transmigration. These mystics sought to become God by aspiring with will and skill to the stage of absorption:

"For the Hermetists...it is through mystical experience that man attains liberation. In that experience, at its greatest intensity, the soul is wholly absorbed in the vision of God...He forgets all bodily sensations and all bodily movements, and is still. But the beauty of the Good bathes his mind in light, and takes all his soul up to itself, and draws it forth from the body, and transforms it wholly into the essence of God. In the ecstatic vision of the divine, man's being is deified; he passes into the divine Light...it is possible to rise to the knowledge of God, which implies identification with Him, by the application of the principle that 'like is apprehended by like'...Such equalization to God can be attained by the illimitable extension of our being...By such an expansion of the range of his consciousness man may rise into oneness with God, who is Himself the Whole." (Sidney Spencer, *Mysticism in World Religion*).

Hod also represents the concept that basic geometries underlie the proportions and relationships of physical manifestation. One changeless law of scale and proportion pervades the universe. In Hod we learn to recognize them even through complexities of outward form.

Because we can observe, analyze, order, arrange, and visualize, we can extend the possibilities and potentials inherent in nature, much the way a gardener creates hybrids. The elaboration of mineral forms through metalurgy and chemistry were part of the foundation of civilization and alchemy.

In general, Hod relates to the development of skill, in science or mystic ascent. This is similar to the scientific method when working Qabala. First we carefully observe natural phenomena, then create a theory or principle based on observation. Now we are in the experimental stage that either proves the validity of the theory or shows that it needs to be modified or discarded. To be scientifically valid, an experiment must be repeatable or reproducible.

Experimental work always has the purpose of bringing something into form. It shares this *telos* with art. It may not be a physical form. It may be a state of consciousness or a conscious realization which represents the answer to an enigma. Or, the concrete grasp of something we wanted to understand more fully. This grounds abstract ideas in experience.

The choosing of a project--an act of will--sets processes in motion that lead toward the concretion or completion in the phenomenal world. Therefore, we initiate the practice of reaching for guidance from the higher self for the purpose of making guidance more definitive in our lives.

Another practice, that of formulating specific geometrical shapes in the mind's eye, is for the purpose of gaining skill in control of mind wandering. We can learn to manipulate subtle formative substances and recognize proportions, measurements and relationships that are basic in all form building.

Discrimination is the keyword for the Astral, which (as Hod) has the sword for its symbol. By use of the sword of discrimination, acquired through receptivity to the planes above, errors and distortions are dissolved; relationships, forces and energies are rearranged. What is irrelevant, useless or harmful must be discarded as an obstruction. This stabilizes one ideal quality after another into our personal sphere. This is another step in the process of integration and unification.

Magic as a Hermetic Art

Hod is a curious admixture of pre-scientific magic, and the technical humanistic willed approach of science. Magic has existed as a sacred psychology among all peoples since ancient times. Whether it was practical or "impractical" magic matters little. The distinction which concerns us here is between magic and wisdom, magician (Hod) and saint (Netzach).

Magic and religion can be viewed as two different languages which interpret the perennial theme of our conscious evolution. Magic concerns developing power through will, while religion develops us through denial of egoistic willfulness. According to Needleman:

The religious path says to man: "surrender your trifling sense of ability which you magnify into something fantastic and grotesque, and allow the power of God to operate through you." The path of magic says: "Create in yourself a will and an individuality that is an instrument of higher cosmic energies." Both magic and the path of religion in their authenticity, and as properly understood, deal with the transformation of man into a being who can consciously manifest fundamental power (or the "Will of God").

Magical power is related to the ability to create illusions or trance states in others. People are susceptible to deception because of suggestibility, an intense desire to please others, and passive or uncultivated attention. No amount of intellectual brilliance can compensate for passivity of attention. It controls perceptual focus and conceptual processes. It lets us deceive ourselves and is the source of denial. Visual and mental misdirection, coupled with emotional misdirection can lead to the feeling and perception of another world or reality.

Perceptions, thoughts, and emotions can conspire to construct illusory objects and events. In the everyday trance of consensus awareness our attention is almost always passive, and we are susceptible to a variety of suggestions. We can train the faculty by sustained attention directed toward self-observation of our own processes (thoughts, sensations, emotions) as they occur in ordinary experience. This is called mindfulness in Buddhism.

Indian philosophy suggests cultivating attention to all aspects of our being:

"sensations (pleasant sensations, unpleasant sensations, indifferent sensations, interested and pleasant sensations, disinterested and pleasant sensations, etc.); emotion (a passionate mind, a mind free from passion, a mind full of hatred, a mind free from hatred, an infatuated mind, a mind free from infatuation, an intent mind, a wandering mind, an exalted mind, an inferior mind, a concentrated mind, an unconcentrated mind, an emancipated mind, an unemancipated mind, etc.); dispositions, thoughts, perceptions, reactions, sounds, tastes, colors, odors--in short everything that could possibly be seen as the contents of the mind." (Needleman, 1975).

Living in the world of real causes begins with cultivating attention. Without active attention it is not possible to glimpse the inner aspects of reality. Passive attention beguiles with appearances, both in regard to the universe and ourselves. It is because of failure of attention that desire shapes our thoughts and understanding, and actions. This leaves us without real power, acting in a false world, a construct of the ordinary passive mind.

Maimonides spoke of the mystical application of attention and evocation of conscious energy:

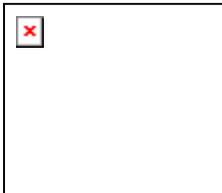
"When we have acquired a true knowledge of God, and rejoice in that knowledge in such a manner, that whilst speaking to others, or attending to our bodily wants, our mind is all that time with God; when we are with our heart constantly near God, even whilst our body is in the society of men; when we are in that state...then we have attained not...this degree of perfection...Their mind was so identified with the knowledge of God, that he made a lasting covenant with each of them."

"Those who are perfect in their perception of God, whose mind is never separated from Him, enjoy always the influence of Providence. But those who, perfect in their knowledge of God, turn their mind sometimes away from God, enjoy the presence of Divine Providence only when they meditate on God; when their thoughts are engaged in other matter, Divine Providence departs from them. ...This person is then like a trained scribe when he is not writing. Those who have no knowledge of God are like those who are in constant darkness and have never seen the light."

Humanism

The skeptical philosophy of this sphere may not be religious. It may be existentialist or Humanistic. Like Hermeticism, humanism is a philosophy for people who think for themselves, as it challenges all metatheories. It is fundamentally deconstructionist. Humanism is focused on human means for comprehending reality, without access to transcendent knowledge. It is a philosophy of reason and science. Though rejecting arbitrary faith, authority, revelation and altered states of consciousness, it is a philosophy of imagination. Humanists recognize that intuitive feelings, hunches, speculation, inspiration, altered states, and religious experience remain useful sources of ideas that can lead us to new vistas. If they help in the here and now, they get applied. They just don't take metaphysical notions literally. If they relate to pie-in-the-sky after death payoffs, they are not embraced.

Humanism is a philosophy of compassion even though there is no fear of after-death punishment by an archetypal Parent-figure. Humanists devote no energy to satisfying desires of supernatural entities, so they have plenty left over for social concerns. Realistic philosophy recognizes the need for careful moral decision making. It is a philosophy for those in love with life, and not afraid of personal responsibility. With no prefabricated answers to the great questions of life, Humanists enjoy the open-endedness of a quest and the freedom of discovery.



NETZACH

Title: Netzach, Victory

Magical Image: A beautiful naked Woman

Position on the Tree: At the base of the Pillar of Mercy

Yetziratic Text: *The Seventh Sephira is called the Occult Intelligence because it is the refulgent splendor of the intellectual virtues which are perceived by the eyes of the intellect and the contemplations of faith.*

Kabbalistic Titles: Firmness, Triumph, Victory

God Name: Jehovah Tzabaoth

Archangel: Haniel

Order of Angels: Elohim, Gods

Planetary Correspondence: Venus, Nogah

Spiritual Experience: Vision of Beauty Triumphant

Virtue: Unselfishness

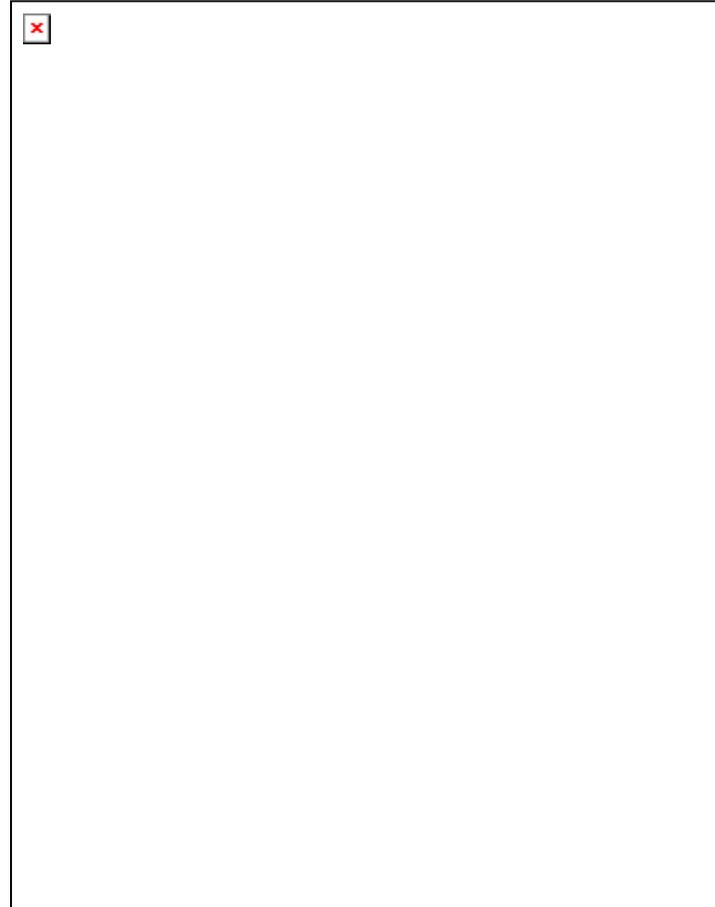
Vice: Unchastity, Lust

Physical Correspondence: Loins, Hips, Legs

Symbols: Lamp, Girdle, Rose

Tarot Cards: The four Sevens

Color: Green



Introduction to Netzach

Netzach is usually translated as Victory, but it also means clarity or brightness, such as sincerity and truth, or perfection and glory. All these can be characteristic of our desire nature. Whatever we strongly and consistently desire is always victorious--it dominates our attention.

The outcome of desire is karmic experience, since karma is simply the result of our actions, and active desire and yearning lead to action. If the desire is selfish, we may turn away from the results in disappointment and disgust. Therefore, it is wise to be careful what you allow yourself to desire and the intensity with which you pursue it.

Clarity, in regard to Netzach means that we learn to become more effective at thinking things clear through. Of course, we can't foresee all contingencies, but we can develop a more circumspect attitude. Satiety with material desires makes them no longer attractive to us. Detachment goads us into a search for something more meaningful--for something less transitory.

Reaching upward, we find relief from dissatisfaction and boredom, as the light of truth pours in with increasing intensity. Finally the brightness of Inner Light saturates us with its truth. The Higher Self is able to gain a lasting victory over the delusions of the lower nature, and our perspective is changed forever.

This is the sphere of sincerity and truth, for we cannot pretend when it comes to desire or devotion. It cannot be faked. Our attention wanders off weak desires, but when the focus of desire is the search for the Beloved, sincerity is the only way to become a conscious and effective instrument.

A degree of perfection is the spiritual experience of Netzach, for it is where the final work of personality transmutation takes place. When you are no longer attached to earthly desires, and yearn for the harmony of the Truth of Unity, desire becomes the key to perfection or individuation. But sincere desire must be accompanied by the desire to act as an instrument for the outflow of Higher Wisdom. This requires some maturity and life experience.

In Netzach our love grows and prepares us to embrace fully a philosophy of life based on the truth of Unity and the power of Love. In Malkuth, we sought processes hidden below the surface of observable reality. This realization led to the desire to find out more about unseen realities. We learned the importance of dedicating ourselves to work for realizing our human potential (Hod) and the evolutionary force. On Path 25, we become artists of the evolutionary process.

In Yesod, we built a firm foundation for the transmutational work. Directed by the Self, tapping the power of Yesod accelerates the transmutation process by building in new structures that lead to spiritual rebirth in Tiphareth. Hod helps us develop faith through satisfying the intellect with objective validation of our experiments. Form comes to be perceived as synergetic interaction of points of conscious, living light. These relationships can be represented by certain geometrical figures.

Human consciousness is a formative power which grows stronger when we aspire with increasing devotion and intensity. When we keep knocking at that door, we realize an influence descending from above. There is a feedback loop that keeps the process intensifying enough to keep desire alive through inevitable dry periods of practice.

We see our experiences and the purpose of life the way we want it to be. When we synthesize our learning and experience into a philosophy, desire is very much a part of it. We can pursue it sceptically or idealistically, but both can be zealously pursued. We philosophize from our emotional biases. The difference is that the Qabalist's desire is a refined, unattached, and directed desire. It is based on practice and direct experience of higher states of consciousness. Desire (or *bhakti*) can be cultivated and focused into full creativity (Tiphareth). This yoga of devotion links us back to the source.

Netzach is the sphere of fire on the mental plane. It means "remembrance" but with more acute realization than ever before. The goal is kept before the mind's eye with imagery and exercising creative imagination (*dhyana*) as the force which transforms spiritual energies into manifestation. This brings an increase in devotion and aspiration, and an acceleration in the cycle of development. The seeker is ready when he can exert consistent personal effort to gain more understanding of life.

Netzach brings stabilization and experiential realization to the mental knowledge that personality is a vehicle for the radiant form of the divine Self. First it comes only in fleeting moments. But receptivity grounds it in the ego, feelings, and behavior. This series of realizations accelerates development. Deeply knowing that the Self of every human personality is One, is the highest expression of the power of Venus, her truest beauty, nobility and grandeur.

By demonstrating Love, we enter more fully into the stream of higher consciousness which pulls us along in its current. It draws the soul upward. Our compassion and sympathetic nature is refined. We become more creative and appreciative of beauty.

Artistry is the result of a renewed ability to perceive and express harmony, proportion, and balance. This blends the discerning qualities of Hod with the unifying nature of Netzach. This results in the refinement in the astral light of both our mental and emotional expressions.

In Netzach, we also learn to refine our mental images and remain focused on our growth. Our personalities blossom when we receive the healing influence of the Self. The image-making faculty in Tiphareth is freed of lower distorting influences. Emotional and mental processes are brought into harmony. This process stabilizes over time.

Netzach is called Victory, for human desire becomes aligned with universal desire--the cosmic Will. Human imagination is the mediating force which makes it possible to manifest divine will in the material world.

Intense desire holds the promise of fulfillment which already exists on a subtle plane.

All desires ultimately originate in Cosmic Desire (i.e. karma and destiny). The highest forms of desire are divine. God's desire results in the creation of a Universe. Our destiny is to synchronize with that and become its embodiment on earth.

Netzach and Devotion for the Beloved

Just as an emergent Hod-function indicates intellect applied to learning spiritual wisdom, so an emergent Netzach function epitomizes devotion to the Great Work. This refines the instinctual force, and the soul becomes "magnetically" drawn toward the Self at Tiphareth.

Tiphareth influences Netzach as a creative and formative power from the Causal Plane level. Its influence enters the body through the limbic system in the brain. Netzach represents the pleasure principle or pleasure centers of the brain (dopamine and serotonin cycles). Devotion manifests for the Great Work when we are compelled to seek the Beloved or spiritual guide. Through devotion, we adopt the principles of the guide. Identifying with the inner teacher influences values, choices, and feelings judgements. Spiritual masters teach more through love once the mind has been satisfied of the validity of the chosen path.

Netzach also means devotion to the imaginative faculty. The formation of images is the basis of art, and functions analogously to the development of Hod's abstract concepts and systems. Their complementary interaction produces tangible electromagnetic fields in the body. It is through our subtle field that the creative powers of life have the ability to effect psychosomatic change, even through placebo effect. The body/mind is transformed into a kind of "spiritual resonator."

Subjective values have the power to exert a great causal influence over us. Lifestyle choices have many repercussions which are no more than the results of our actions. Human values, ethics, and morals are very powerful agents in our shaping. We need inner guidance to choose our moral perspective most wisely.

Netzach is the sphere of the humanities and imagination. What is required for balance is an encompassing vision combining science and technology with ethical or social values. It is a return to the holistic science of Pythagoras, and the ideal state of Plato, as typical models.

Psychology tells us that mental images, feelings, ideas, thoughts, and sensations create neuropeptides that influence our mood and attitudes. That chemistry in turn directs the body, but the higher levels of brain activity control the lower. Introspection or inner experience is a potent transformative agent on all levels of consciousness, and has a generally calming effect.

Emergent properties of brain function include not only insights, memories, ideas, reason and logic (Hod), but also feelings, desires, needs, wishes, and values (Netzach). These emergent, holistic properties can not be predicted from the physiochemical function of the brain.

Why should we aspire toward Netzach? To continue to grow, we need to raise our sights to the higher values exemplified by Tiphareth. We need to contemplate that which is beyond self-interest, economic gain, politics, and the requirements of sustaining life. We need compassion and sustained passion for our mystical practice. Long term goals require continual reinforcement.

We must be involved, even if in a detached way, to have insights about human values. They may come as a revelation, or as internalizations from role models, mentors, or guides. Our minds can become habituated to more refined, compassionate responses. Thus Netzach is a compassionate way of being in the world. We reorient our value system toward universal harmony, realizing fundamentally that love is all that really matters.

THE ORPHIC MYSTERIES

If Hod, with its emphasis on mind is analytical and Aristotelian, Netzach with its emphasis on soul is Platonic. Its spiritual experience is "the vision of beauty triumphant." For this reason, it is linked with the humanities and the artistic, musical path of the Orphic Mysteries.

No prophet or sect had a monopoly on Orpheus' name, and many writings were spuriously attributed to him. Whether it was a mystery religion or not, this philosophy predates the time of Homer. Orpheus, the fabled cult leader was known as the "founder of intitations."

It is unknown where Orphism originated, but it is not a Mediterranean nor Hellenic cult. It shares many characteristics with shamanic practices, such as ecstasies, visions, raptures, and imaginary journeys, in particular the descent to hell to recover the beloved. Orpheus is also credited with being a healer and musician who could charm wild animals.

The doctrine of an immortal soul is central to Orphism. Orpheus was said to worship the Sun or Apollo. This means he aspired for Tiphareth, the sphere of the Sun. One legend even considered him the son of the god, much like Netzach emanates from Tiphareth.

The Pythagoreans wrote poetry they attributed to Orpheus, and the two cults share many similarities. Pythagoras claimed to be an incarnation of Apollo. Pythagorean doctrine included the transmigration of souls through different animal bodies and different regions of the universe, as well as a reverence for natural numbers. Many so-called Orphic rites were Egyptian and Pythaorean in origin, such as religious vegetarianism. They also attended to the music of the spheres, the inner music of the audible life stream. Orpheus' descent to Hades links him to the Eluesinian mysteries, and he is alleged to be their founder. Orpheus offered a religious method radically different from the prevailing Olympian religion of Greece. Transmigration meant the adoption of the vegetarian imperative. Also required were asceticism or detachment, purification, and religious instruction concerning the immortality of the soul. Orpheus founded a mystery school which explained the destiny of the soul. It explained the relation of each individual to the divine through the divinity of the soul which could return to its source. In this Orphic concept of immortality, the soul is considered to be entombed in the prison of the body. Its incarnation is a death-like state, (Trump XIII).

Orphics believed in the theory of metempsychosis, which means the passing of the soul at death into another body. The soul is judged on the basis of its good and bad points and is incarnated after a time in an appropriate body. The soul is condemned to transmigrate until it earns its final deliverance.

Orphic life included certain rules and purifications, but claimed salvation of the soul was the result of an "initiation" with cosmic and religious revelations. Orphic doctrine speaks of rhapsodies (inspired poetry) which concern the production of a multiform universe from a primordial unity. It offers hope that our own instinctual origin can be transcended by embodying divinity.

However, according to Plato, the road "*is neither straightforward nor single...there are many forkings and crossroads.*" This sounds like an allegorical description of the Tree of Life, with its right, left and middle paths with crosspaths. Plato adds that the just are allowed to take the right hand road.

On the Tree of Life, the left-handed path is the way of magicians who gravitate to Hod and the right-handed path is the *bhakti* path of mystics and saints and proceeds through Netzach. Orphic philosophy was preparation for death. They contended the soul was judged for punishment or bliss; they aimed at maintaining memory of past lives. Pythagoras was said to possess this ability.

The legend of the descent of Orpheus to hell in search of his lost beloved was one of the most popular. A variation on this theme is Dante's *Divine Comedy*. Ecstatic journeys to infernal regions are a common theme in shamanism. There are extant Orphic texts which are similar to the Egyptian and Tibetan "books of the dead."

Orpheus and Pythagoras both exemplified the "divine man." They taught in the manner of spiritual philosophy and holistic education rather than forming religious bodies. Their orientation was transmitted from Plato to the humanists of the Italian Renaissance and on to Paracelsus in the 16th century. The Orphics held the trade secrets for a science of the soul, and were immensely popular with the public since they were based in ecstatic devotion. It is Right Hemisphere religion.

The Pythagorean-Platonic theory of Ideas has led to the concept of archetypes as models or paradigms of the phenomenal world. We comprehend and understand these Ideas, symbolized by the Platonic solids, through the faculty of the soul. For Plato, the soul was the source of knowledge.

The doctrine of transmigration implies that the soul can remember the archetypal world of Ideas and enjoy perfect knowledge and bliss communing with the original source. Death for the initiated soul is a return to

this condition. Orphic philosophy taught the soul how to remain in the archetypal realm continually, becoming liberated from constant reincarnation.

This knowledge is latent in incarnate man, and requires applied philosophy to make it conscious. This Orphic mythology of the soul seems to have Oriental sources, which Plato welded into a personal version. It does not come from the traditional religion of Homer nor other Mediterranean cults. Plato considers man as a microcosm in a macrocosm, and speaks of the soul as a charioteer driving his chariot--an allusion to soul travel in a spiritual vehicle.

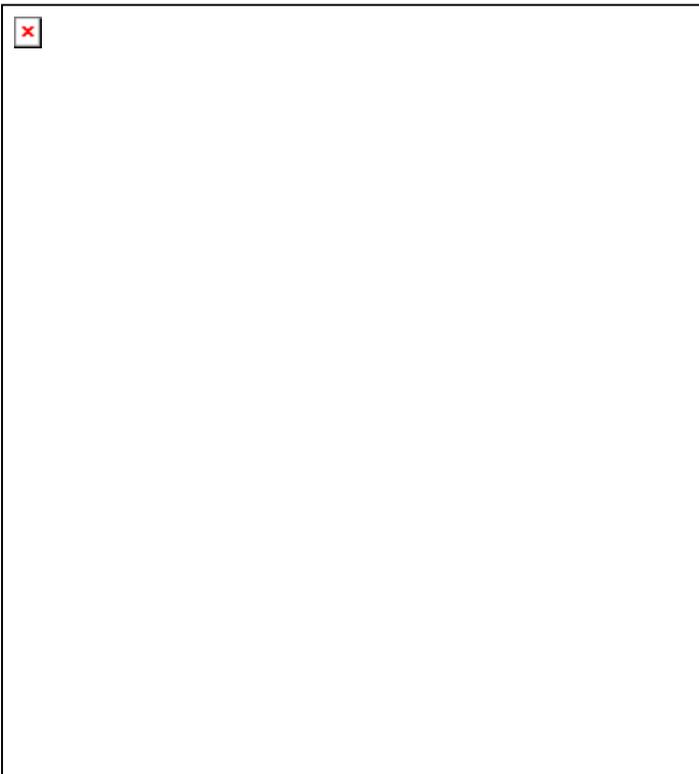
According to Mircea Eliade (1975), "Plato 'rediscovers' and develops what may be called the archaic ontology: the theory of Ideas carries on the doctrine of exemplary models that is characteristic of traditional spirituality." This newer formulation by Plato spread Orphic and Pythagorean doctrine far and wide. It even became a source of inspiration in the Empire of Alexander and the Hellenistic culture. It has grown into the great academic tradition of philosophy and the humanities.



Art, Path XIV

"To our distant ancestors who worked in the silence of the caves some two hundred centuries ago in elated honor of genius never surpassed." It is significant, I think, that we begin to speak of centuries, as if welcoming these women and men at the boundary of the recent past. The fact that some of them could execute such paintings, engravings, and carvings is impressive enough in itself; but more impressive is the fact that the undoubted majority who could not, evidently could appreciate, even support, those who could. I can think of no more significant single advance in the whole course of human evolution; and I can think of no more convincing demonstration of the final, decisive emergence of the utterly distinctive human brain."

--Melvin Konner, *The Tangled Wing*



"Artemis," photo by Robert Avalon, c1976

Mindful Luminosity

Art originated in shamanism, when man first made imagination into images. All art is process. All process is about morphology or process magic, translation from one state or another with or without some specific goal. Process morphs are metaphors. Art describes without explaining. Art imitates life. In pathworking life imitates Art. Processes connect disconnected forms. What is lost in form (crystalized) can be found in process. Metaphor is about experience, how we know what we know. We experience the environment through flowing exchanges of information, matter, and energy. Through metaphor we can relate what we know to what we don't know. Metaphor links us with an ocean of interrelated ideas about body-mind-self-universe.

All epistemological metaphors are couched in the language of the senses. They are drawn from the bottomless reservoir of the sensorium. On the Path of Return, the path "Art" supersedes "The Universe." Pathworking is process magic. Each successive path doesn't transcend the prior path; it enfolds or includes it. In the same way, the universe imparts its creative process to us.

We, in turn, impart our creative process to the things we create. Thus, we engage in an internal dialogue with persons, places, and things through our intuitive constructions. Our creations reveal the nature of our minds directly and so the universe indirectly. This is the great current of influences (Middle Pillar) that changes our lives in accord with the holistic changes of the universe. It relates with us symbolically, metaphorically through what we might call reflectaphors or metaphorms, universally recurrent dynamic images. Our idiosyncratic expression of these universal forms is art--a means of communicating thoughts and experiences in a mostly personal way.

A metaphorm is an object, image, concept, or process that we compare to something else. Metaphorms imply relationships between things that we cannot explicitly compare nor literally equate. Every object, image, concept or process is a metaphorm. It matters little whether a metaphorm is literally true or not. What is important is that it binds our lives to the vast unconsumable life of the universe, giving us a taste of immortality.

All things are intrinsically metaphorms, whether we use them metaphorically or not. Likeness of form is only one of the likenesses between different forms of matter, energy, or information. What is lost in form can be found in process. Regardless of the context in which a thing or process exists, our minds can connect it to something else. Intuition involves both discovering new connections and innovating new solutions. This is a synergetic process. In imagery, figure and ground are given together and complement and sustain one another.

Metaphorming encompasses all forms of metaphor including analogy, allegory, allusion, symbolism, and figures of speech. Moreover, it can involve all of our physical senses in a synesthesia, implicating every mode of thinking, feeling, creating an identification. Even visual images can be derived from non-visual sources.

Metaphorms are ways of implying likeness between things, such as the macrocosm and microcosm.

In metaphorming, we transcend the constraints of logic relating from one object to another a new meaning, pattern, or set of associations. The symbolic language of metaphorms is multidimensional, operating simultaneously on many planes of associations, nuances, and meanings. Metaphorms invoke the idea of forming, connecting, shaping some thing (or information) in our mind's eyes and hands.

Our brain imposes its dynamics on everything we make--from concepts about the universe to techniques used to test or represent these concepts, from chaos to order. Process morphs connect us with everything we create and are influenced by. Metaphorming is a principal means of exploring the world, relating information from one discipline to another, connecting potentially all sources and forms of information. Metaphorms are expressions of nature's unity.

Science also uses metaphorms. Physicists are metaphorming when they create words or images for describing novel relationships. If there is no existing word or expression to convey a concept or hypothesis, they simply invent one. They also use creative visualization. Visual metaphorms, in particular, inspire hypotheses, and vice versa.

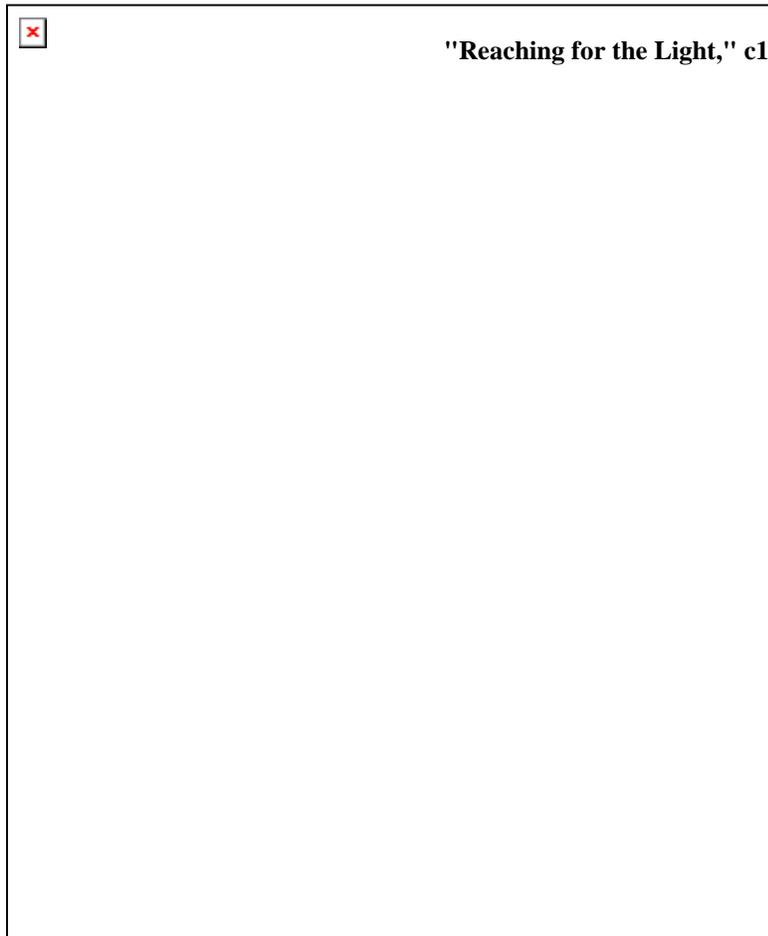
Visual thinking is essential to communicate scientific theory. Visual models are great aids. There is a domain of thinking where distinctions between conceptions in art or science become meaningless. Visual thinking is a criterion for selection between alternatives that resist reduction to logic and are best referred to as aesthetics. We pursue this path to various degrees of enlightenment. Thus, art can be considered a state of mindful luminosity. This luminosity is like the soft, reflective light of the Moon, to which this path corresponds.

Metaphors flow between the complementary worlds in which material substance intermingles in the transmutable mind where everything imaginable seems possible.

Both scientists and artists take two facts or experiences that seem separated, and find a likeness in them, and create a unity by showing the likeness. All science is the search for unity in hidden likenesses. Thus, it ventures beyond logic, in flights of fancy. These days, physics, once the bastion of rationality, has become very metaphysical.

All the various theories and models are actually an ever-changing whole. It hardly matters if a hypothesis or theory proves valid. What matters is that it directs us, constructively challenging our previous notions, approaches, or canons. This alone makes it productive. But it must be aesthetic, as all great theories are. The brain loves to make theories about itself and its processes. This is echoed in the models we form for the physical universe. There are no definitive models for nature is in constant flux as is the depth of our penetration of the secrets of the universe. The body of scientific knowledge is transient. Each theory evolves from an angle of analysis, a way of perceiving what it is "like." The best are able to model many aspects of the world, and predict or explain the behavior of phenomena, providing symbolic models that lead to insight. Metaphors (Path 25) mediate between the brain (Malkuth) and the universe (Kether), between the somatic and the cosmic.

We can produce an infinite number of virtual structures. Imaginary structures are called "mental architecture" by cognitive scientists and "thought forms" by philosophers and poets. Virtual (nonphysical and symbolic) processes are not affected by time-space-form constraints. The virtual world is one of reflectionism, and this sounds very close to the characteristic descriptors of the Astral Plane. This art is the way matter becomes mind. Our worldview seems to need a mirror, if only to serve as a reminder, or metaphorm. Reflectionism helps us conceptualize how one world may also consist of many worlds. As reality is both and more.



Art and the Artist

Art embodies the rhythmic flux of the psyche either through a performance or a "product." The artist combines technical craftsmanship with the constraints of the artform. Thus, the creation is not merely the production of free will, but also reflects the discipline imposed by training and materials. As such, art is the result of a unique combination of consciousness, or cognitive abilities, and subconscious drives or inspiration. The motivating force behind the process of art is the unconscious animation of an archetype. The archetype (or metaphorm) seeks manifestation in some "form," and manipulates the artist into producing this form. According to Jung, *"Art is a kind of innate drive that seizes a human being and makes him its instrument. The artist is not a person endowed with free will who seeks his own ends, but one who allows art to realize its purposes through him. As a human being he may have moods and a will and personal aims, but as an artist he is 'man' in a higher sense--he is 'collective man'--one who carries and shapes the unconscious, psychic life of mankind."*

This is the sentiment that makes all process work art--whether it is process therapy, process magic, or the classic modes of expression.

Aleister Crowley made an appropriate choice changing the name of Tarot Trump XIV from "Temperance" to "Art." While both titles may be considered as accurate, Temperance indicates a condition of moderation, or blending of opposites; this is one aspect of "Art." The artistic process combines inner and outer life. It makes what is inside, outside; we turn ourselves inside out. It is Self-recursive. It is a reconciliation of opposites in a transcendental, paradoxical symbol whose purpose is unification.

The content expressed by the symbol is as-yet-unknown, or pre-cognitive. Otherwise, it would be a cognitive realization, rather than symbolic. The artist receives the inspiration through intuition and feeling, is motivated by the drive of the archetype, (metaphorm, or reflectaphor), and executes the process through sensory and motor functions.

As the contents of the unconscious become more clearly defined, there is a transitional phase from the awe and dread of the Prototaxic Mode, to the relatively benign nature of Syntactic experience. Art is an expression of the parataxic mode, which mediates between these extremes.

In a cursory examination of the history of art (from a metaphysical viewpoint), we might associate primitive art with the Prototaxic Mode; Impressionism (from Chagall onwards) with the Parataxic Mode; abstract and geometrical art with the Syntactic Mode. These classifications aren't literal or absolute, obviously, but suggestive.

In the parataxic mode, there is a progressive replacement of dread with creativity in the service of archetypal patterns. If the artist has talent, his works also take on collective, as well as personal value, and reflect the transformative process in society. It frequently happens that artists are "ahead of their time," in that their work receives no wide recognition in their own lifetimes. Great art has an ageless quality.

Images, symbols, and ritual enactment ("mythologies") provide a means of crystallizing ideas which still remain below the threshold of consciousness. Ideally, they fulfill their function when either the artist or observer is later able to consciously integrate the "meaning" which they embody, at least to some extent. This is precisely the function of the pictorial Tarot Keys. We gain a greater cognitive awareness of the archetypal processes they encode, as time goes on.

The distinction between decorative and symbolic art lies in the fact that symbols portray a higher level of abstraction, whereas decorative art is a "just-so" story. It has no inherent meaning, and is merely ornamental. Visionary art gives man the ability to create his own reality, even if it is only in images, and this has great transforming power on the psyche. We can only imagine the virtual habitats that will be created by cyber-artists in the near future.

Jung distinguished between two types of artistic creation. He termed one of these psychological and the other visionary. The psychological mode draws its inspiration from the lessons of life, or human experience (life drawing). The visionary mode, on the other hand, contains something of the Divine, and its subject matter is definitely out-of-the-ordinary.

One distinction between the two lies in the degree of psychological activity or passivity of the participant. In the first mode, the artist "thinks up" and develops the form pretty much on his own; but in the visionary mode his own will defers to an apparently foreign inspiration. There may be an element of passivity in both modes, but in a visionary experience it is more pronounced. Visionary art is also generally considered more profound (unless it is sentimental art).

Great art is perceived by what the visionary artist Michaelangelo termed "the eye of the soul." It may be considered the Parataxic counterpart of the primitive's trance, or the mystic's ecstasy. The evocative power of

art is embodied in the rhythm which is the underlying matrix of an art piece. The power of art is intimately connected with perception. The "symbolic value" attributed to any given work depends upon how we look at it. Thus, the art critic has developed tastes different from the "common man." Nevertheless, the greatest art stands the test of time, and has great appeal for the masses and connoisseur alike.

The pleasure of a psychological work is largely aesthetic in nature, whereas the symbolic work strikes a deeper chord. Visionary experience carries even more impact than human passion. Its psychic reality may include or unite physical and metaphysical qualities. It is more effective when it conveys a transparent variation on the archetypal theme. For example, note the persistent revival of classical style and mythological themes among the great masters in painting and sculpture. Art serves a therapeutic function for society. It may even predict the future, as when the Cubist movement and later abstract art preceeded a cultural fragmentation of unprecedented magnitude.

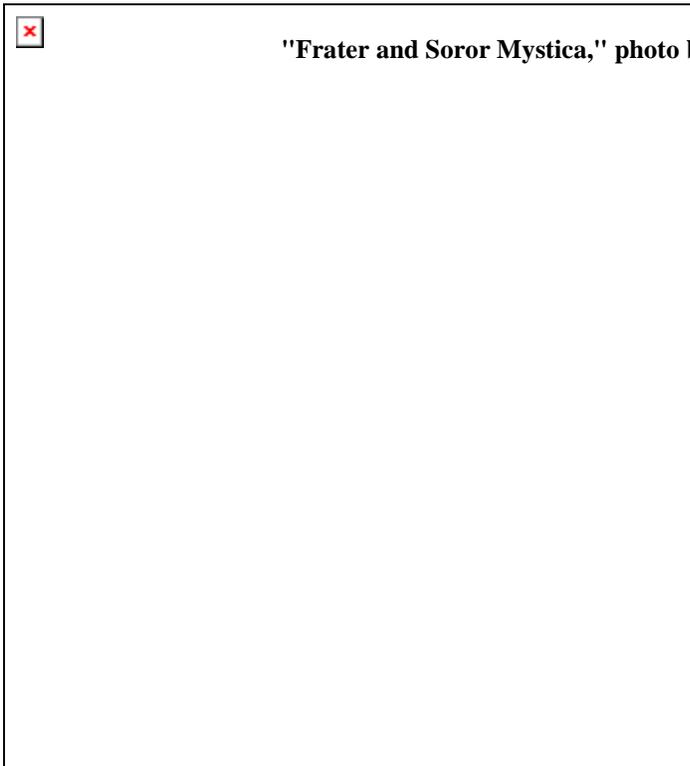
"Art" can be considered a process, not a product (though it results in artifacts). Even the performing arts, which were previously exempt, may now be preserved through recordings and film. John Gowan has classified the arts in a scale of increasing order from performing arts, to visual arts, to compositions in mathematics and music (which are Syntactic in nature), and finally verbal creativity.

This does not imply that one form is better or "more advanced" than another. But it is an aid in determining nuances of the creative process. It is difficult to maintain much objectivity about one's creative effort when the physical body is intimately involved, as in dance.

Dance is closer to a trance state, where the body responds to training automatically, than to one of concentration. The muscle memory does the work, making the dance fluid. In thje visionary mode, on the other hand, there is a temporary withdrawl from the sense organs and the constraints of the physical world. Beethoven said, "*music is the mediator between the spiritual and sensual life.*"

"Art" is the cumulation of five procedures of the Parataxic Mode which includes archetype, dream, myth, ritual, and finally art. Archetype and Dream are impressed directions of action; Myth is neutral, but Ritual and Art are expressed. The move is from pictorial to enactive and pictorial--i.e. interactive. The numinous aspect transmutes or morphs from worrisome, to paranormal, to religious, to magical, to creative.

The parataxic mode exemplifies non-verbal creativity. It represents the development of an enhanced relationship with the subconscious. It is a transcendence over man's animalistic, instinctual nature to a flowering humanity with individual, unique qualities. It means we become artists of our own evolutionary process.



"Frater and Soror Mystica," photo by Robert Avalon, c1976

CONSILIENCE: The Melding of Hod & Netzach

"The love of complexity without reductionism makes art; the love of complexity with reductionism makes science." (Wilson, 1998)

The emergent philosophy of Consilience, put forward by proponent Edward O. Wilson, echoes Buckminster Fuller's philosophy that we become generalists rather than increasingly rarified specialists. Consilience would imply the unification of knowledge, in the sense of melding the sciences (Hod) and the humanities (Netsach). Wilson opens his thesis with the premise of the Ionian Enchantment, which means a belief in the unity of the sciences--a conviction far deeper than a mere working proposition, that the world is orderly and can be explained by a small number of natural laws. This root metaphor goes back to Thales of Miletus in Ionia in the sixth century B.C. It has been a guiding metamyth for scientific thought ever since.

Consilience is more than the concept of linking the sciences and humanities. It is literally a linking across disciplines to create a common groundwork of explanation through linkage of facts and fact-based theories. This sounds very much like metaphors.

Conceptual unity is the foundation of natural sciences. Hybrid domains are making interdisciplinary research more productive. The Philosophy of Science reveals the vital role of intellectual synthesis and shows us the continuous thread of thought that has spanned centuries. Through philosophy we gaze into the unknown future and give it form through our visions, intuitions and conjecture.

The relationship between science and the humanities is important for a balanced perspective and human welfare. The unity of learning was an ideal handed down to us through the Renaissance and Enlightenment, but this ethos has been abandoned in favor of specialization and a plethora of "special-ists."

Enlightenment thinks thought we could know everything; now postmodern deconstructionists tell us we can know nothing but a construct of the mind. They have rejected objective truth for radical relativism; "-isms" and "-ists" and metatheories help us break down and analyze cultural and psychological root metaphors.

These root metaphors govern thinker's minds when designing theories and experiments. The phenomenon of experimenter bias in parapsychology, in particular, is well documented.

If philosophical positions confuse us and close doors, they should be questioned. Our temperaments condition whether our original thinking tries to create order from disorder, or creatively disrupt the existing order.

Wilson is a staunch defender of science and defends it zealously:

"I mean no disrespect when I say that prescientific people, regardless of their innate genius, could never guess the nature of physical reality beyond the tiny sphere attainable by unaided common sense. Nothing else ever worked, no exercise from myth, revelation, art, trance, or any other conceivable means; and notwithstanding the emotional satisfaction it gives, mysticism, the strongest prescientific probe into the unknown, has yielded zero. No shaman's spell or fast upon a sacred mountain can summon the electromagnetic spectrum. Prophets of the great religions were kept unaware of its existence, not because of a secretive god but because they lacked the hard-won knowledge of physics."

Well, Synergetic Qabala would beg to differ about visionary knowledge of the structure of reality. And, of course, mysticism *has* yielded "zero," cosmic zero. The scientific method demands certain experimental protocols. Diagnostic procedures require repeatability, elegance and economy, mensuration or a means of reducing ambiguity, heuristics or theoretical interpretations, and consilience, consistency with other findings. Qabala can qualify with its descriptors of discreet states of consciousness, elegance of symbolic encoding, spiritual science, and coherency with all traditions. It requires not only dissection and analysis, but synthesis and integration, with philosophical reflection about significance and value. The unification of these methods is what this path Art is all about. Networks of cause and affect across adjacent levels of organization is what the Tree of Life is all about. Meditative qabala is contemplation of the hidden design and forces of the networks of causation.

"The love of complexity without reductionism makes art; the love of complexity with reductionism makes science."

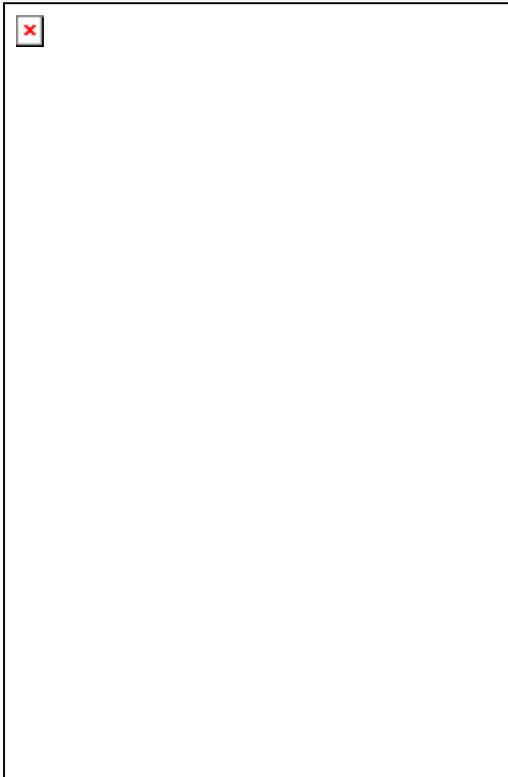
Just because scientists have not been perceived as artists, and mystics not as scientific doesn't make it so:

"Scientific research is an art form in this sense: It does not matter how you make a discovery, only that your claim is true and convincingly validated. The ideal scientist thinks like a poet and works like a bookkeeper, and I suppose that if gifted with a full quiver, he also writes like a journalist. As a painter stands before bare canvas or a novelist recycles past emotion with eyes closed, he searches his imagination for subjects as much as for conclusions, for questions as much as answers...This level of creativity in science, as in art, depends as much on self-image as on talent." (Wilson)

And mysticism can be a spiritual science. Saints tell us that the core spirituality of all religions is the same for everyone, everywhere, in all times. Sacred literature attests to this in the perennial philosophy and elsewhere. Mystical ascent is possible and leads to the groundstate of Unification or God-Realization (Kether) by way of Self-Realization (Tiphareth). Anyone who bothers to repeat the experiment can see the results for themselves. In science and mysticism, proofs don't just appear. They range along a spectrum of credibility from interesting, to suggestive, to persuasive, then compelling, and finally obvious. As in mathematics, conclusions can follow completely from any premise, which may or may not have anything to do with the real world. Predictive synthesis is the main form of validation of theories, but is very difficult. One way is to use reductionism across all levels of organization and all domains of learning. Qabala is ideally suited to both this sort of reductionism to manageable assimilation of data and predictive synthesis. This synthesis is what Art is all about, and the synergetic creativity of its focus, Tiphareth. What is foremost is the love of complexity. The domain of that synergetic complexity, the nexus of the Tree is Tiphareth.

BOOK VI:

Path 25: ART/TEMPERANCE, Sagittarius



Path 25: Table of Contents

**(The Parataxic Mode; higher Astral Plane; metaphorms; visualization, correspondences
visionary experience; Tantra, I-It relationship; Holy Guardian Angel; Arts)**

Book VI

1. PHILOSOPHY

- a. Transitional Phase: Psychological Faith, Free Will, True Will**
- b. Ritual: The Retirement Ritual, Invocation of the Holy Guardian Angel**
- c. Practical QBL: The Many Expressions of Art/Correspondences**

2. PSYCHOLOGY

- a. Psychological Model: Creative Visualization**
- b. Archetypal Encounter:**
 - (1). Artemis/Apollo, the Divine Twins**
 - (2). The Muses and Artistic Inspiration**
- c. Tantra**

3. ASTROLOGY AND ALCHEMY

- a. The Meaning of Sagittarius in Astrology and Pathworking**
- b. The Alchemy of the Central Nervous System (Neurotransmitters)**
- c. The Alchemical Formula "Solve et Coagula"**

4. ORIENTATION/EXERCISE

- a. Tapping Your Creative Potential (Northridge Development Scale)**
- b. Rhythm: The Music of the Spheres (Correspondences)**
- c. Tantric Lunar Resonance Meditation: Its Links with Tarot and the Western Tradition**

BOOK VI: ART/TEMPERANCE, Path 25

INTRODUCTION

Path 25 traverses the higher Astral Plane, which is the realm of visionary experience of images and symbols. The Parataxic Mode is the designation given to this form of expression by psychologists. It denotes using symbols and images in a unique context. This is precisely what occurs in "Art." However, in art the symbols and images are no longer exclusively private, but may be shared with others.

Art expresses feelings and understanding. It is the fulfillment of sensation in an audible or visual form. It is an expression of an archetypal process in relationship with life. Art is philosophy expressed in symbols and imagery. For the sensation function, art serves the same purpose that science does for thinking. Other analogies for art include philosophy and psychology for the intuitive function, and the emotions of human society for feelings.

The characteristic procedures of the Parataxic Mode include archetype, dreams, myth, ritual, and art. Art forms include dance, drama, music, painting, ceremonial magick, alchemy, perfumery, sculpture, poetics, etc.

As "Art," Path 25 presents us with a new quality in our vision of reality. This is the realm of metaphors, where our brain images reality and the universe in its own structural terms. This surreal vision attempts to portray the working of the subconscious mind. In QBL, it is considered the narrow way between Death and The Devil, trial and temptation. The artist attempts to balance his inner turmoil through a transforming "Work" or "Opus." History is replete with examples of this often painful process. But it can be joyful also.

- 1. Physical Plane: Path 25 represents both a physical and psychological harmonizing or equilibrating process, in which instability is balanced through disciplined work. It is a blending of opposites, culminating in unification and transformation through will. It indicates the reversibility or sublimation of instinctual energies. Included are the performing arts, especially ceremonial or High Magick, with its blending of the energies of Sun and Moon. This process is designed to establish contact with the Self.**
- 2. Astral Plane: The image for this card represents the exchange of male and female energies between husband and wife. Sublime, regenerate love creates the "magical child" which comes into its own in Tiphareth. It also expresses love for one's Angel or spiritual guide, without which no progress is possible. There must be a surrender to the direction of the inner Master, in order to establish a connection with the Light. Therefore, visualization practice is critical.**
- 3. Causal Plane: The formula of this path is V.I.T.R.I.O.L., *Visita Interiora Terrae Rectificando Invenies Occultum Lapidem* ("Visit the interior parts of the earth; by rectification thou shalt find the hidden stone"). This has**

nothing to do with the "hollow earth" theory, but means to plumb the depths of the subconscious by turning inward. This represents the opening of the ego-Self Axis, as termed by psychologists. It is living the high ethical standard required by the Self as preparation for receiving the Light of Tiphareth. Increase in Self-knowledge.

4. Archetypal Plane: Consecration of the personality to the Great Work or Self. A visionary mode is a grace conferred on the gifted artist. The roots of poetry and painting lie in prophecy and chanting and sympathetic magic. The Self imposes trials and tests to transform the consciousness of the aspirant. This is True Will. The transformations appear in the form of the I-it relationship, rather than the I-Thou of Syntactic Mode (Tiphareth).

CREATION

Soror Meral, 1955

*Analysis steals away the body of an art.
My lords, I must create, and wilt thou say me nay?
Those who have nor spirit nor heart,
Who cold, unthinking, speakest what they say,
And only heed the world and not the highest voice;
Who say it of the outside and not of Inner Self.
My lords, I say the artist has no choice;
He must damn thee for scriveners,
For men who own a lack,
Mere grovelers upon the ground
Who can nor will not feel of Beauty's rack;
But who must instead devour her face
And smother all in words that turn
Against her grace.*

*Oh, let me be an artist
And turn my scorning eye
Upon the dissecting words of man
That disgrace the heaven high
Of love's creation.*

*Oh, let me burn my life out
And turn a deafened ear
To those who would speak of me,
Be it harm or cheer,
Of my creation.*

*I would live unknowing
Of the tearing up of life
And the wars of words upon my work.
Begone! thou dogs that lurk*

'Gainst my creation.

ART/TEMPERANCE; TRUMP XIV; Parataxic Mode

Art is a kind of innate drive that seizes a human being and makes him its instrument. The artist is not a person endowed with free will who seeks his own ends, but one who allows art to realize its purposes through him. As a human being he may have moods and a will on personal aims, but as an artist he is "man" in a higher sense -- he is 'collective man' -- one who carries and shapes the unconscious, psychic life of mankind.

--C. G. Jung

Art embodies a rhythmic flux of the psyche through a process, performance or a "product." The artist combines his technical skill or craftsmanship with the constraints of his artform. Thus, the creation is not merely the production of his free will, but also reflects the discipline imposed by training and materials. As such, art is the result of a unique combination of consciousness, or cognitive abilities (Hod), and subconscious drives or inspiration (Netzach). The motivating force or drive behind the process of art is the unconscious animation of an archetype, seeking expression. The archetype seeks manifestation in some 'form,' and seemingly manipulates the artist into producing this form. How often are artists surprised by their own creations, considering them a gift of God, their muse or perhaps even an angel?

Aleister Crowley made a very appropriate choice in changing the name of Tarot Trump XIV from "Temperance" to "Art." While both titles may be considered "accurate," Temperance indicates a condition of moderation, or blending of opposites; this is one aspect of Art. The artistic process combine sinner and outer life. It is a reconciliation of opposites in a transcendental, paradoxical symbols whose purpose is unification. The content expressed by the symbol is as-yet-unknown, or pre-cognitive. The artist receives the inspiration through intuition and feeling, is motivated by the drive of the archetype and the will to create, and executes the process through sensory and motor functions.

As the contents of the unconscious become more clearly defined, there is a transitional phase from the awe and dread of the Prototaxic Mode (see Yesod) to the relatively benign nature of Syntactic Experience (see Tiphareth). Art is an expression of the PARATAXIC MODE, which mediates between these extremes through archetypes, dreams, mythopoesis, ritual, teaching tales and all forms of artistic expression.

In a cursory examination of the history of art (from a metaphysical viewpoint), we might associate primitive art with the Prototaxic Mode; Impressionism (from Chagall onwards) with the Parataxic Mode; and abstract or geometrical art with the Syntactic Mode. These classifications are not absolute, obviously, but offer some guidelines for your own attributions.

In the Parataxic Mode, there is progressive replacement of dread with creativity in the service of archetypal patterns. If the artist has talent, his works also take on

collective, as well as personal value, and reflect the transformative process in society. It frequently happens that artists are "ahead of their time", in that their work receives no wide recognition in their own lifetimes. Yet, great art has an ageless quality.

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The distinction between decorative and symbolic art lies in the fact that symbols portray a higher level of abstraction, whereas decorative art is a "just-so" story. It has no inherent meaning, and is merely ornamental. Visionary art gives us the ability to create our own reality, even if it is only in images, and this has a great transforming power on the psyche.

Jung distinguished between two types of artistic creation. He termed one of these psychological and the other visionary. The psychological mode draws its inspiration from the phenomena and lessons of life, or human experience (such as life drawing). The visionary mode, on the other hand, contains something of the Divine, and its subject matter is definitely out-of-the-ordinary. Terrific modern examples include the work of Mati Klarwein, H. R. Giger, Alex Grey, Gilbert Williams, and Robert Venosa.

One distinction between the two lies in the degree of psychological activity or passivity of the participant. In the first mode, the artist "thinks up" and develops the forms pretty much on his own, even it is emergent. But in the visionary mode his own will seems to defer to an apparently foreign inspiration, and it can feel like it simply comes through of its own will. There may be an element of passivity in both modes, but in a visionary experience it is more pronounced. Visionary art is also generally considered more profound.

Great art is perceived by what the visionary artist Michaelangelo termed "the eye of the soul." It may be considered the Parataxic counterpart of the primitive's trance, or the mystic's ecstasy. It is the pure joy of the creative flow state. The evocative power of art or music is embodied in the rhythm which is the underlying matrix of an art piece. The power of art is intimately connected with perception. Some would argue that consciousness itself is simply pure perception -- certainly there is no consciousness without it.

The symbolic value attributed to any given work, and how it moves us, depends on how we look at it. Thus, the art critic has developed tastes different from the "common man." Nevertheless, the greatest art stands the test of time, and has great appeal for the masses and connoisseur, alike.

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"Art" is most properly considered as a process, not a product, though it results in artifacts often valued by society. The transformative process can be as strong during the creation of an unskilled or underappreciated piece as for a master-work. It is all relative. Even the performing arts, which were previously exempt, may now be preserved through recordings and film. John Gowan has classified the arts in a scale of increasing order from performing arts, to visual arts, to compositions in mathematics and music (which are Syntactic in nature), and finally verbal creativity.

This does not imply that one form is better or "more advanced" than another. But it is an aid in determining nuances of the creative process, which we deal with more fully under Tiphareth. It is difficult to maintain much objectivity about one's creative effort when the physical body is intimately involved, as in dance. Dance, for instance, is closer to the automatism of the trance state, where the body is responding to training automatically, but there is still a large component of concentration. In the visionary mode, on the other hand, there is a temporary withdrawal from the sense organs and the constraints of the physical world. Beethoven said, "music is the mediator between the spiritual and sensual life."

"Art" is the culmination of five procedures of the parataxic Mode which includes archetype, dreams, myth, ritual, and finally art. The Parataxic Mode exemplifies non-verbal creativity. It represents the development of an enhanced relationship with the subconscious. It is a transcendence over man's minimalistic, instinctual nature to a flowering humanity with individual, unique qualities.

Properties of Parataxic Procedures
after Gowan's *Operations of Increasing Order*

Procedure	State	Direction	Modality	Valence	Numinosity
Prototaxic	Trance	impressed	excursion	very bad	dreadful
Archetype	REM	impressed	pictorial	bad	worrisome
Dream	REM	impressed	pictorial	B/G	paranormal
Myth	Normal	neutral	oral	-	religious
Ritual	Normal	expressed	enactive	G/B	magical
Art	Normal	expressed	pictorial	good	creative
Syntactic	N-higher ASC	expressed	symbolic	very good	psychedelic

1. PHILOSOPHY

a. Transitional Phase: Psychological Faith, Free Will, True Will

Magick is the Science and Art of causing Change to occur in conformity with Will. Any required change may be effected by the application of the proper kind and degree of force in the proper manner through the proper medium to the proper object.

--Aleister Crowley/*Magick in Theory and Practice*

Hume's fork: Either our actions are determined, in which case we are not responsible for them, or they are the result of random events, in which case we are not responsible for them.

--From the "*Oxford Dictionary of Philosophy*": David Hume

The will cannot transgress the bounds of the psychic sphere: it cannot coerce the instinct, nor has it power over the spirit, in so far as we understand by this something more than the intellect. Spirit and instinct are by nature autonomous and both limit in equal measure the applied field of the will.

--C.G. Jung/"On the Nature of the Psyche"

Many psychologists regard the will as a basic function; in Jung's view, however, the will is a freely available psychic energy, present in each of the four basic functions. It can be 'directed' by an intervention of consciousness. Thus the scope and intensity of the so-called willpower are closely connected with the breadth of the field of consciousness and its degree of development.

--Jolande Jacobi/*The Psychology of C.G. Jung*

Spiritual masters, philosophers, psychologists and physicists alike will argue that humans have little or no free will and yet must behave responsibly as if they do. Even in the Many-Worlds Interpretations of physics where every possibility is played out in some fungible or non-fungible universe, certain laws of nature hold. Even if we create the fantasy of a "Harry Potter" universe where we create our own reality through magick, we cannot escape certain existential realities, and perhaps not our fate, destiny or karma either.

Since classical antiquity, philosophers have pondered the relationship of man's soul, his will and the Will of Divinity. Crowley was the first to speak in terms of True Will, which he considered to emanate from the Holy Guardian Angel, or Kether. Saints speak of this true will of the soul as *mauj* or the Lord's Will.

This Will is the union of the soul with its source in God-Realization, when the soul is no longer subjected to the illusion produced by the mind. High Magick is a spiritual endeavor, culminating in submission to the Lord's Will and merging in that unitive state represented in QBL as Kether (1).

Since some of us place value and importance on this quest and some do not, where does the "free will" of an ego to seek conscious transmutation originate? Within what range is man's "free will" effective? What is the relationship between will and desire? What is the proper condition to encourage with the will? Using Crowley's axiom, will is the proper kind of force, Magick is the proper manner, psyche is the proper medium, and soul is the proper object. The soul, then, can be altered or experience change through mystical practice, or spiritual science. Alchemy depicts this as a process of refinement. Psychosynthesis teaches not only about the stages of the will, but techniques for developing it.

A brief look at the different perspectives on this question may be organized by looking at the meaning of will on the various planes of existence. Will implies degrees of freedom -- but is this "freedom to", or "freedom from"?

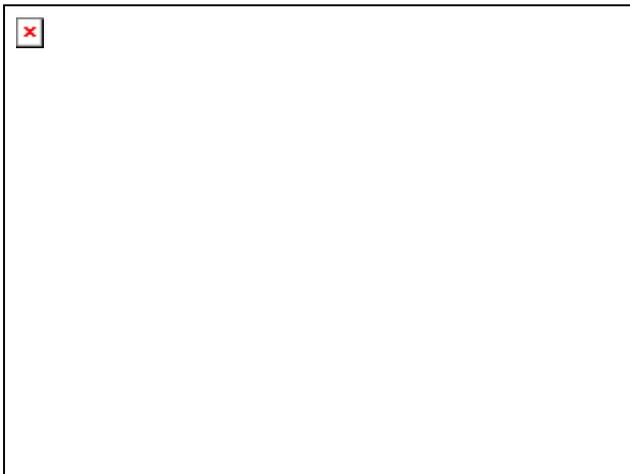
"Free will", or indeterminacy, has different connotations on different planes of awareness. In humans, the will occurs between the influence upon behavior of the instincts and spirit. "Free will" has no power to influence either of these domains; but it is effective on its proper level in changing the psyche.

1). PHYSICAL PLANE: INSTINCT

"Free will" has become a basis for philosophical speculations concerning the nature of light and matter in quantum physics. The new physics has deduced that reality can never be observed directly since the act of observing alters the reality. Therefore, quantum physics is used to predict probabilities not empirical reality. Heisenburg's Uncertainty Principle states that an electron's momentum and position cannot be simultaneously determined, because of the influence and relative position of the observer.

Mystics and psychologists have intuitively perceived the importance of symmetrical systems in their explorations of mandala symbolism, an expression of underlying psychic unity or totality. Physicists have now discovered an important symmetrical matrix underlying manifestation, with the help of the electron microscope.

This symmetrical matrix is the basis of atomic structure. The small, spherical elements in an atomic nucleus bond together as closest-packed spheres. Imagine twelve balls surrounding one ball, in the tightest conformation possible.



This is a highly ordered, or idealized condition, known as a vacuum, or "zero-order" state. Connecting the centers of these balls produces a geometrical form of maximum symmetry, known as the Vector Equilibrium Matrix, which mirrors the qabalistic Merkabah or Throne Chariot. This physical analog has important implications for human consciousness.

In quantum physics the vacuum state contains no real matter or light yet has in it (through the uncertainty principle) all possible matter and light in the form of so-called 'virtual particles' or 'zero-point' fluctuations. Likewise, the state of pure consciousness is said to contain all possibilities, to be a state of pure potentiality in the sense that it is empty but lively. --Gowan, Operations of Increasing Order

This matrix of 12 around 1 closest-packed spheres in the atomic nucleus has the possibility of 12 degrees of freedom of information exchange. Buckminster Fuller considers the philosophical implications of this in his classic works on geometry, *Synergetics 1* and *Synergetics 2*. Changes in this system occur through symmetry breaking.

According to Fuller, "It is experientially suggested that the structural inter patterning principles apparently governing all atomic associability behaviors are characterized by triangular and tetrahedral accommodation, wherein the tetrahedron's six positive and six negative vectorial edge forces match a total of 12 universal degrees of freedom." In other words, this system represents the "free will" of matter which "chooses" to assemble itself according to this pregeometric model. This underlying relationship is the structural basis of all atomic nuclei, and therefore is a prime candidate for a truly "sacred geometry" -- nature's own preferred rules of self-assembly.

It may be difficult to make the bridge from these contemplations on the nature of light and matter to a meaningful connection with biology or human physiology. However, this point has not passed unnoticed in the field of parapsychology. Arthur Middleton Young shared an interest in the "meaning of geometry" with Fuller. His speculations on this topic began appearing in an obscure trade journal known as *Astrologia*, in the 1970s. He surmised that causal indeterminacy is an inadequate notion; that, in fact uncertainty is fundamental and certainty is derived. This scientific discovery marks an essential philosophical shift.

In his book the Philosophy of Science Peter Caws has said: "After Heisenburg it was claimed that everybody was free; but of course it is absurd to pretend that my freedom depends on my manipulation of subatomic particles . . . These values are much too small for my conscious endeavors to make the slightest difference to them."

But it is not so much one's conscious endeavors that make one free, it is rather a person's capacity to make decisions, an operation of what is generally called will, rather than consciousness. This is crucial.

Let us now suppose a person's decision-making depends on some kind of internal switch--let us say an on-off switch, for simplicity. The question is, "How much energy does it take to operate this imagined switch?" Now it is no trick mechanically to make a switch that calls for very slight energy.

In this article on "Free Will and the Uncertainty Principle", Young goes on to postulate that because the human body originates from a single DNA molecule "that the human entity is in the final analysis a quantum of action with the possibility of its decisions being in theory indeterminate." Of course, the organism conforms to macrocosmic boundary conditions, which are out of its control. However, he feels the "me" of an individual ultimately depends on the manipulation of microscopic particles, otherwise we couldn't even lift a finger! He concludes:

We could say: "Granted that some faculty makes decisions, let us call it will, how much power or perhaps energy would we expect this will to have?" . . . We therefore see that the essential operative and decision-making "me" of a person could be as small as a sub-nuclear particle or a photon and still be quite capable of carrying on all the operations of a human body. We also should see that the uncertainty principle, considered as basic, provides evidence that the "me" of a person, even if so tiny and elusive, can be completely free from any determinative bonds within its range of hierarchic control -- a free agent possessing something mysterious called a 'will' and exercising equally mysterious powers referred to as "mind."

This certainly seems to have implications in mysticism for the theory of the subtle bodies, or body of light, as the carrier of consciousness in the higher realms. However, returning to more practical matters, let us consider a physiological analog for Young's internal "on-off switch."

Though Young did not name this "switch," if we examine current research in brain physiology or the electrophysiology of the central nervous system, there is an interesting direction in this regard.

E. Roy Johns is postulating memory as a wave function, and wave forms as knowledge. But even more pertinent is the work of W. Grey Walter on Contingent Negative Variation (CNV), and Contingent POSitive Variation (CPV). This is known as the "wish switch" and has definite implications in the determination of behavior.

Moving through the sciences from physiology to psychology, we find that will is spoken of as a dynamism. It operates along a continuum which includes impulse and compulsion. Will is subordinated to consciousness, but subject to interference from the complexes (which may form an altogether contrary stream of intent).

Human behavior is motivated by the archetypes on an unconscious level. It then manifests through the four functions: thinking, feeling, sensation, and intuition. Jung described the relationship between will and the functions in his essay, "On the Nature of the Psyche."

Within the psychic sphere the function can be deflected through the action of the will and modified in a great variety of ways. This is possible because the system of instincts is not truly harmonious in composition and is exposed to numerous internal collisions. One instinct disturbs and displaces the other...

In the psychic sphere, as we have seen, the will influences the function. It does this by virtue of the fact that it is itself a form of energy and has the power to overcome another form. . .the will is in the last resort motivated by instinct -- not, of course, absolutely, otherwise it would not be a will, which by definition must have a certain freedom of choice. . .the motivation of the will must in the first place be regarded as essentially biological. But at the . . .upper limit of the psyche, where the function breaks free from its original goal, the instincts lose their influence as movers of the will. Through having its form altered, the function is pressed into the service of other determinants or motivations, which apparently have nothing further to do with the instincts.

What I would call the psyche proper extends to all functions which can be brought under the influence of a will. . .Because of its empirical freedom of choice, the will needs a supraordinate authority, something like a consciousness of itself, in order to modify the function. It must "know" of a goal different from the goal of function. Otherwise it would coincide with the driving force of the function. . .psyche is essentially conflict between blind instinct and will (freedom of choice).

This will, or consciousness, is most frequently associated with the ego-complex. Understanding the parameters of its influence, and intellectually finding itself ousted from its central and dominating position by the archetypes, the ego gradually subordinates itself to a stronger factor. This factor is the totality of the Self, which contains all images of archetypal influence. It is tempted to follow the power instinct and identify itself with the powers of the Self to keep up its illusion of ego-mastery. But this attitude soon fades in favor of its alternative -- mystical access to other realms of experience.

Ego gives up its emphasis on action guided by conscious awareness and thinking. Opting for the transcendent perspective, action spontaneously arrives for ego to interpret, after the fact. Ego's viewpoint is linear. From the transcendent perspective, determinism and free will are meaningless. So is ego's control fantasy.

Path 25, or ART represents a transition phase in the relationship between the ego and the emergent transcendence function. Transcendence is, therefore, a transition mode. The word itself is derived from the Latin word meaning 'to climb.' Transcendence is therefore an explicit mode of ascending the Tree of Life.

Transcendence is experienced as that "summons from Beyond." The quest for meaning takes man beyond his ego-centeredness to discover his authentic selfhood. Transcendence occurs in everyday life as a threshold experience. As Philip Wheelwright describes,

Man always lives on the verge, always on the borderland of something more. he is the animal, apparently, who has built restlessness into a metaphysical principle. . . Indeed the intimation of something more, beyond the horizon, belongs to the very nature of consciousness. To be conscious is not just to be; it is to mean, to intend, to point beyond oneself, to testify that some kind of beyond exists and to be ever on the verge of entering it. (1)

The ego continually comes to the threshold. It finds transcendence within not without. The emotions (#9, Yesod) are exalted through spontaneous transcendence (Path 25). Examples would include the feeling evoked by great art and music, true devotion, the immensity of the heavens, the urge to create and persist, and the wonder and mystery of existence. These types of experiences naturally relativize the importance of the ego, and its view of itself. In *Ego at the Threshold*, Sampson states that

Because transcendence is a process, not a state or stage, the transition between the ego's natural perspective and that of transcendence does not happen all at once. The notion of an ego forever enlightened because it is joined with the transcendent flow in a moment of insight is a faulty notion. Our ego now enlightened, is ever reaching out toward transcendence while remaining master within its own realm, fending off forces that threaten its centrality and dominance. It is not so much a matter of our ego's coming to the threshold and passing through, going back, coming to the passing through a door as it is a matter of our ego's continually coming to the threshold and passing back and forth. . . endlessly through life. Each voyage and return changes our ego in often imperceptible ways in its natural perspective. (2)

This description of ego's passing back and forth across the threshold, is reminiscent of the writings of Aldous Huxley on *The Doors of Perception*. This transcendent function or process is Spirit transmuting Psyche. It represents the Solar and Lunar components (Apollo/Artemis), or Spirit and Soul conjoined.

1. Lynn A. DeSilva, *The Problem of the Self in Buddhism and Christianity*, Harper and Row, 1975, 1979, New York, pg. 158.

2. Edward Sampson, *Ego at the Threshold*

2). ASTRAL PLANE: PERSONALITY

In Magick, the aspirant experiences transcendence from the instinctual realm to the astral plane through the exaltation of the senses and emotions. On the Astral Plane, Will = intention and the power to transmute.

According to the mystic, St. John of the Cross, the personality includes the qualities of Will, Intellect, and Memory. In QBL, these are represented by Netzach, Hold, and Yesod. These Spheres are synthesized in the Path 25, Art.

Magickal Ceremony is particularly effective on this level. W.B. Yeats, poet and member of the Golden Dawn group, called magic "the revolt of the soul against the

intellect." Magick is a process philosophy which is intimately linked to 'will' and imagination.

The Magickal personality is created by the magician through ceremonial magick as a link with his Self, or Individuality. It becomes the vehicle for the Higher Self. In the "sacred time-warp", the magician becomes the embodiment of his idealized wholeness. As a magical link, this Personality expresses the conscious unity and integration between the higher Self and the ordinary personality.

This Magickal personality may be employed for two forms of magic. Low magic is designed to fulfill thwarted desires. Its practice is *never* absolutely necessary to Universal aims. High Magick is designed to fulfill the desire for self-transformation culminating in the return to Kether. It is an alignment with the view outlined in Qabala that the soul returns to its source in the Divine.

Given the proper goal, the magickal personality links the aspirant to the Self. With this channel open, we can observe the role of the will in making a ritual "work" on the psyche. The active dramatic element of ceremonial is intrinsic to the Great Work. Also, one must consider magick "real" in order for it to work. With a willing suspension of disbelief, the "Work" may have an effect on one's psyche, and change it in some essential way.

Something that is posited as merely possible will have no such transforming effect; it will not 'work' psychologically, and hence lacks genuine psychical reality. In Jung's view, it requires active imagination to convert the purely possible -- the merely fantasied, the aesthetically contemplated -- into the psychically real; active imagining "invests the bare fantasy with an element of reality, which lends it greater weight and greater driving power" (CW 16,106). Accordingly, the specific function of dramatization in active imagining is to give to apprehended content the effective force which it lacks as the object of voluntary or passive fantasy. As dramatized, this content comes alive and comes to influence, by a kind of counterforce, the imaginer himself: "if this crucial operation is not carried out, all the changes are left to the flow of images, and you yourself remain unchanged" (CW 14, 753). (1)

Thus in dramatic ceremonial, archetypes work as psychical realities by structuring the imagistic contents which the aspirant puts into dramatic form.

Magick "works" since the "free will" has the ability to effect changes in the psyche. In Magick, imagination is reality. Ceremonial Magick is quite dramatic. We can enter the drama of the psyche itself and participate in what is psychically real. This drama of the psyche can change us in some basic way. This self-dramatization is active in that we ourselves are participants in the psychical play which is produced during a rite.

Aleister Crowley summarized the magical theory of the universe in an interesting series of theorems in *Magick, Theory and Practice*:

I. "Every intentional act is a magickal Act."

This implies that anything you do which has a temporal connection, such as "I am actively going to do this, or make that event occur", etc., is a magickal Act. By intention, active will is implied. But even unintentional acts are not truly so. Thus, breathing is an act of the Will to Live.

II. "Every successful act has conformed to the postulate."

The postulate is stated in the opening of this essay on Will. Every successful act must also be absolutely necessary in the time/space frame in which it is performed.

III. "Every failure proves that one or more requirements of the postulate have not been fulfilled."

This theorem includes misapplied force or wrong techniques.

IV. "The first requisite for causing change is thorough qualitative and quantitative understanding of the conditions."

This covers the boundary conditions of the situation; or, desire vs. ability to fulfill the desire. Important here are the concepts of function and talent.

V. "The second requisite of causing any change is the practical ability to set in right motion the necessary force."

For example, to effect a change in the psyche with a desired outcome requires a mode of "working." Examples would include yoga, magick, and psychotherapy.

VI. "Every man and every woman is a star."

This implies a polytheistic attitude and reverence for the many different valid universes. Each of us is at the center of our own "universe.

VII. "Every man and every woman has a course depending partly on the self, and partly on the environment which is natural and necessary for each. Anyone who is forced from his own course, either through not understanding himself, or through external opposition come into conflict with the order of the Universe and suffers accordingly."

The environment is a big influential factor. For instance, a person born in the USA will naturally develop very different thought patterns than someone born abroad. But either can achieve a self-understanding. Gurjieff states that all personal growth occurs through conflict. Therefore, using this theorem, if you should find yourself in a conflict situation, it is a reflection of internal complexes. Being so, there is now a place for personal growth to occur. Success consists of fulfillment of one's goal by meeting challenging circumstances.

VIII. "A man whose conscious will is at odds with his True Will is wasting his strength. He cannot hope to influence his environment efficiently."

The path of least resistance combines conscious and subconscious goals. the ego defers to psyche's as-yet-unknown goals.

IX. "A man who is doing his True Will has the inertia of the Universe to assist him."

Force is a subjective way of categorizing an energy which does work. There are many kinds of forces; and many kinds of pathways or transducers, converting one

kin of energy into another type. If you are living your True Will, you are optimally adapted to the environment.

X. "Nature is a continuous phenomenon, though we do not know in all cases how things are connected."

This is a holistic approach to a holographic phenomenon. In reality, things are simply connected as time/space and ego are illusions. In the magickal view, the correspondences underlie the manifest reality of natural objects.

XI. "Man is ignorant of the nature of his own being and powers. Even his idea of his limitation is based on experience of the past, and every step in his progress extends his empire. There is therefore no reason to assign theoretical limits, to what he may be or what he may do."

Thus, magick is a process of realizing one's latent subconscious abilities and discovering and using hitherto unknown forces in nature.

Crowley goes on to recommend further benefits of Magick and Science for the fulfillment of the Will. he discourses on the uses of force, and the rights and responsibilities of the aspirant.

For magickal development, the aspirant must live his True Will, be authentic, and live his or her passion. This includes knowing oneself as a person with limitations from a realistic perspective, and becoming independent of external circumstances for fulfillment.

3). CAUSAL PLANE: MIND (SELF)

On the level of Individuality, will leads the seeker to develop psychological faith in imaginal reality. The mind cooperates with the soul, when it has finally become convinced that there is something Beyond itself. In this plane will is defined by meditation, which is the shortcut to fulfilling the goal of union.

Psychological faith manifests in the love of images, a faith which confirms the reality of the soul. Trust in the imagination makes psychological reflection possible. The personality is re-visioned as the projection of the soul an its image making power. For the aspirant, the soul is the source of the Will and personality. Personality is transmuted to Individuality (or becomes enlightened) through the formula Will = Meditation. Meditation is the proper force which induces change at the Causal Level.

4). SPIRITUAL PLANE: SOUL

To the mystics, True Will is submission to the Lord's Will. Through meditation the mind unties the knot leaving the soul free to rise. "Free will" is used most effectively in conjunction with the Law of Karma (= Path 25) to further the soul's goal of return to Kether. Karma is a manifestation of the law of balance an equilibrium. On this plane Will = Union. In his Practical Qabalah, Gareth Knight spends his entire chapter on Path 25 reviewing the mystical concept of the Dark Night of the Soul. path 25 represents 'the first night or sensitive purgation. . . wherein the soul purges

and strips herself naked of all things of sense." The second Dark Night is on path 13, High Priestess, where the soul slays the mind through devotion for the Lord. Detachment from the world, and attachment to the Lord produces "soul consciousness." There is union of Light, Love, Life, Law and Liberty.

It takes strong will power to overcome worldly activity. When the mind becomes weak, then the soul becomes strong. Now mind is strong and soul is being dominated by the mind. Mind has become the master, soul has become the slave, so will power is weak. We go where the mind pulls us; soul has to go along with the mind.

When soul becomes the master, the mind becomes the slave. Then you have strong will power, when the soul leaves the mind. Then mind becomes spur and soul gets relieved from the mind. The amount of will power is determined by meditation.

1. Edward S. Casey, "Toward an Archetypal Imagination", *Spring 1974*, Spring Pub., Dallas, 1974, pp.4-5.

b. Ritual: The Retirement Ritual, Invocation of the Holy Guardian Angel

The Invocation of the Holy Guardian Angel has been considered the supreme magical ritual since medieval times, if not before. It is the single most perfect ceremony in magick and forms the necessary basis for further work. This ritual establishes and solidifies contact with the higher Self and provides one with an inner guide, giving direction and unification to the spiritual quest. The Angel becomes one's source of inspiration and sustains one during dry periods in the quest.

The most succinct outline of the procedure has come down to us in a Fifteenth Century grimoire, called *The Sacred Magic of Abra-Melin, the Mage*. The book is an account of a seeker, known as Abraham the Jew, who traveled extensively in the near East questing for a master magician. After many false-starts he finds Master Abra-Melin, and begins his course of instruction. His book is a legacy to his son, Lamech, which outlines the procedures for him to follow in his father's footsteps.

The manuscript somehow found its way to the 'Bibliotheque de l'Arsenal', a library in Paris. It remained there in comparative obscurity until its translation into English in 1883, by S.L. MacGregor-Mathers (founder of the Order of the Golden Dawn). This manuscript, among others, formed a basis for the Nineteenth Century hermetic magical revival.

Notably absent in the text is any intellectual discussion of the precise nature of the "Angel." It is considered neither subjective nor objective, since there is no metaphysical basis for inquiry. It is considered sufficient that the process does in fact produce the desired end of "Knowledge and Conversation" with the Angel, and that this end is desirable above all others. It predates the Jungian notions of Individuation and union with Self.

The active aspiration toward union with one's Angel always retains the character of universal necessity in the magickal worldview. Thus, it is always a proper operation which can in no manner harm the aspirant, providing he stays true to his original oath to see the process through to its conclusion. Presumably, it is NOT motivated by power issues.

The operation itself is a six month long retirement ritual, or retreat from the pressing matters of ordinary life. But it is no vacation as the work is consuming. It involves progressive purification, and increasing fervor of aspiration and devotion. Ultimately, the seeker directs all of his or her life's activities to recovery of conscious contact with the inner guide. This invocation has a spiritual purpose, and necessarily precedes any other magical rite. Until the aspirant receives this inner guidance, he is not qualified to practice high magic. Consciousness, alone, cannot define the purpose or result of any given rite.

The six month retirement period is designed to foster a peaceful, contemplative state of mind. It is a time of detachment and withdrawal from earthly pursuits. Over a period of time, one develops a burning devotion and desire for contact with this inner genius or Daemon. In this manner, the secret aspirations of the soul come into manifestation.

In our modern world, it may not be possible for the seeker to leave employment and obligations for an entire six-month period. However, the operation is divided into three two-month periods of increasing isolation. It should be possible for those with enough enthusiasm to design a format which meets personal needs. Rather than physical isolation of the body deep in the woods, as recommended, the seeker can develop an introversion through an alternative lifestyle. For example, do not allow the distractions of city life to encroach upon the discipline: unplug your phone, limit social contacts, etc.

It is recommended that the operation be timed in accordance with Solar cycles, since the goal is solar in nature. There are two schools of thought on this matter. The Sacred Magic of Abramelin suggests commencement in the Spring, at the Vernal Equinox. Since the invocation is essentially one of increasing Light, this coincides with the resurrection of vegetable life and the growth cycle.

In colder climates, this timing is ideal for the country-dweller who may easily move out into a local wooded area, and set up an encampment by building a shelter of rude branches as described in the Abramelin manuscript. The natural warmth of the Spring and Summer months make this a rather easy proposition.

However, for the city-dweller, the situation is effectively reversed. In summer, everyone pours out of their houses, increasing the noise and hustle-bustle. In the city the natural retirement period commences at the Autumnal Equinox, when everyone retires to the coziness inside.

PHASE 1: The beginnings of the operation are fairly simple. One's household affairs must be set up so as to avoid disturbances. This includes disruptions from

outside and from internal psychological turmoil. In other words, a fairly mature, stable personality is a pre-requisite. Then a specially consecrated chamber is prepared. It should adjoin the bedroom, if possible. It might be as simple as a specially prepared altar within a closet or cupboard. This altar is the focus of the magical Temple. The entire area becomes scrupulously clean, and functions as a magical circle.

Once you devise your personalized form of the ritual, it must be adhered to with strict discipline. This implies that the body should be kept in excellent health, so the performance of the invocation is consistent. Whatever magical appurtenances are available to the aspirant add to the aesthetic quality of the rite. These might include a special robe, and magickal weapons such as the Lamp, censer, wand, etc.

Once these basics are assembled, the first major step is the formulation of the magickal Oath of the spirant to fulfill his appointed mission. *Put it in writing!* You may even want to post it in a prominent place as a reminder, to sustain you through dry periods when it is difficult to remain consistent.

The basic intent of the Retirement Ritual is that you awaken and fall asleep to magick. The aspiration for the inspiration of the Angel remains in the forefront of your thoughts.

The original prescriptions for the operation suggested rising 15 minutes before sunrise to wash, dress and otherwise prepare oneself for the morning invocation. You may want to wake slightly earlier to record your dream in your magickal journal.

In the first 2-month period the same invocations and prayers (best devised by each individual) are repeated twice daily. These can be correlated with sunrise and sunset, as morning and evening adorations to the Sun. The Angel is personal representation of this Solar quality; it is the Inner Light and Life. Exercises at this time might include Banishings, Middle Pillar Exercise for equanimity, tranquility, and stability. The Invocation of the Angel may come as the climax of these workings, after the mind and emotions have been calmed and focused on spiritual attitudes.

Other activities to maintain an atmosphere of sanctity during the day might include meditation, readings from spiritual writings, and noting any synchronistic events in one's magickal diary. Adapt a simple meditative lifestyle with moderation in eating, drinking, and sleeping. Observe the effect of your diet on your thoughts and ability to remain consistent in the Work.

PHASE 2: Maintain all parameters as outlined in Phase 1, but increase the number of Invocations to the Angel. Visualize the form of the Angel slightly behind you, enfolding you in its massive wings. Add a mid-day retreat period to your schedule. This is necessary since the mind will now experience a dry period, during which it is the inclination to revolve against the discipline. The mind is merely becoming detached about any stimulation from the outer world. Yet, it has not yet received its

fulfillment in attachment to the Angel. Press on! Success will surely follow. It may be a mere glimpse, or glimmer in these two months.

PHASE 3: During this period, it is best to take a leave-of-absence from all business concerns. leave all household affairs to your spouse, or housemate, if possible. Invoke the Lord's grace, that you might attain to the Knowledge and Conversation with your Holy Guardian Angel. Spend most of the day invoking the Angel with increasing fervor. The visualizations should become more and more effortless, and take on the nature of a silent communion. Through meditations you may contemplate the nature of the senses, mind and soul, which comes through when the other two are stilled.

CLIMAX: If you began your operation in the Spring, it will culminate in the Fall, around September 21st. This is your special *Day of Consecration*. The sense of immanence and expectation have reached a climactic level. If your desire has been sincere, and you oath adhered to, the entire force of the Universe back the success of the Operation, at this point. *It cannot fail*; though the results must unfold in time. Make the final, supreme offering of yourself to God, and the power of the Angel will infuse body, mind and soul. Your genius will *manifest* in a form consistent with True Will. This illumination is known as Enlightenment, and is a rapture and ecstasy, of which words cannot speak. The Angel, or real Self, becomes the center of consciousness, forevermore.

The Retirement Ritual: Invocation of the Holy Guardian Angel

Adoration be unto Thee, Lord of my life for Thou hast permitted me to enter thus far into the sanctuary of Thine ineffable Mystery; and has vouchsafed to manifest unto me some little fragment of the Glory of Thine Being.

Hear me, Angel of God, the Vast One; hear me and grant my prayer! Grant that I may ever uphold the symbol of Self sacrifice; and grant unto me the comprehension of aught that may bring me nearer unto Thee!

Teach me, starry Spirit, more and more of Thy Mystery and Thy Mastery; let each day and hour bring me nearer unto Thee. Let me aid Thee in Thy suffering that I may one day become partaker in Thy Glory, in that day when the Son of Man is invoked before the Lord of Spirits, and His Name in the presence of the Ancient of Days.

And for this day, teach me this one thing: how I may learn from Thee the Mysteries of the Higher Magic of Light. How may I gain from the Dwellers in the bright Elements their knowledge and Power; and how best I may use that knowledge to help my fellow men.

And finally I pray Thee, to let there be a link of bondage between us; that I may everseek, and seeking obtain help and counsel from Thee who art my very selfhood.

AND BEFORE THEE I DO PROMISE AND SWEAR; THAT BY THE AID OF HIM THAT SITTETH UPON THE HOLY THRONE, I WILL SO PURIFY MY HEART AND MIND THAT I MAY ONE DAY TRULY BECOME UNITED UNTO THEE, WHO ART IN TRUTH, MY HIGHER GENIUS, MY MASTER, AND MY GUIDE, MY LORD AND KING.

c. Practical QBL: The Many Expressions of Art

...Art has two aspects, one for the artist and the other for the beholder...For the artist, the meaning of art lies in the apprehension of a perceptive context that is clarified and fulfilled in the work, and at the base of the whole process lies the biological purpose of attaining a higher level of consciousness, thus annulling a participation mystique...the new discovery comes to the beholder by way of the unconscious; he takes it in like the air he breathes.

--M.C. Cammerloher/"Art in the Psychology of Our Time"

According to Jung's theory of psychological types (see Book 4, Hod), man possesses four different possibilities of reacting to his environment. These are represented as the functions sensation, intuition, thinking and feeling.

The realm of Art consists of a). the representative or imitative arts (such as dance, drama, and ceremonial magick), which portray or reproduce a psycho-physical relationship and convey "meaning"; and b). plastic arts where visual perception is the central experience.

In the Greek language, the conjunction of concrete sensation, psychic image, and spiritual meaning is termed aisthesis. It conveys both the notion of breathing in (or smelling) and perceiving. The imitative arts, and ceremonial magick, in particular, create an atmosphere which is breathed in by the participant or observer alike. The meaning is inherent in the engagement with psychic reality.

Cammerloher attributes representative arts to the function intuition; plastic arts are the product of sensation. In the past, mystical man, guided by his favorite function, intuition, could attain redemption or illumination. Application of the mysteries has broadened, and mankind has reached the stage where all the functions may be developed and serve as a key to the mysteries. In a holistic viewpoint, the total person possesses balanced activation and can use a function at will. The great artist Eugene Delacroix expressed his opinion in his journal:

When I have painted a fine picture, I haven't expressed a thought. Or so they say. What fools they are! They deprive painting of all its advantages. The writer says nearly everything to be understood. In painting a mysterious bond is established between the souls of the sitters and those of the spectator. He sees the faces, external nature; but he thinks inwardly the thought that is common to all people, in which some give body in writing, yet altering its fragile essence.

Art embodies or lends a visible and demonstrable form to perception and image. As the image becomes "fleshed out," there is an experience of fulfillment for artist or beholder alike which transcends the merely aesthetic. The art-experience enables man to consciously experience his particular perceptions and images by formative effort. Thus nature becomes both subject and object.

Man as nature, becomes reflective, self-aware and perceptive. The dichotomy of the subject-object, or I-It relationship is harmonized. This enables the artist to annul his unconscious identification with the environment, which is known in psychology as participation mystique.

The Art of Painting:

Everyone possesses the ability to produce some visual representation of his perceptions, with or without formal training. Cammerloher states: "The varying simplicity or development of the form then provides an absolutely unmistakable picture of the level his perceptions have attained."

The three basic stages of artistic knowledge of the world are categorized as delimitation, direction and variability of boundaries and direction. Art is the language for the communication of perceptions. Therefore, artistic statements are relative to the degree of knowledge attained. One who knows the language of art transmits more information.

This does not refer to technical training, but to the ability to state perceptions clearly and consciously, on a precise level. In this manner, the artist produces "the only possible demonstration of the stage of development attained by his images." In other words, he has an ability to reproduce that which he sees with his inner eye.

As a means of removing the artist from participation mystique, the artistic act is a way of illumination. Anyone is capable of this experience at any level of technical ability. Technical art may be corresponded to the left lobe of the brain and is the product of logic (or thinking). An objective experience is reproduced, for example a photographic-type portrait or external landscape.

Imaginal art, however, seems to emerge from the right brain, and is a grace or gift from the soul. We could hardly expect the artist to work without a model, and in this instance the model is internal reality. He still paints that which is "seen." But, the subjective experience is concretized in a communicative form, and he is able to share the quality of his vision with others.

Delimitation implies a sharp boundary; there is now an inside and outside (the magic circle is formed). With the drawing of the boundary, the force of creative action is acquired. The artist uses the canvas to focus his vision, which is executed using the magic wand of the brush (or knife).

When one becomes able to differentiate detail within the boundary, dimensionality is established. Complex contours and their mutual relationships are established with precision. The variable boundary stage may be characterized by the three-quarter profile, and utilizes the principle known as fore-shortening. Foreshortening gives the illusion of proper relative size. At this stage of perception-knowledge, space acquires a meaning of its own; static vision becomes dynamic; relativity becomes the prevailing view.

Foreshortening, or perspective drawing, combined with the technique of mixing paints known as chiaroscuro, creates the illusion of depth in a painting. The great masters of the Italian Renaissance developed this treatment of light and shade in painting, and this advance in technique made their work remarkably life-like.

For the painter, the world is revealed by illumination. Any painting (other than simple graphic arts) either contains a light source within itself, or one is depicted as illuminating the scene from an assumed point outside the picture. It is the painter's aim to capture as accurately as possible the effects of light on visual perception.

Light and color are intimately related. Most people realize that color variation is the result of absorption patterns when an object is hit by white light. The variations of the spectrum which aren't absorbed are reflected back to the eye.

Color is not only important in painting, but in psychology. Much ado has been made in recent years of various color therapies. However, these techniques are inconsistent in their attributions of the various properties of color in respect to emotional response. On this point the Qabalah furnishes an extensive, cohesive theory worthy of individual testing.

Colors are defined in terms of hue, value and chroma. Hue distinguishes one color from another, such as red from green. Value indicates lightness or brightness, and is represented by ten shades of gray ranging from black to white. Chroma means intensity or saturation of color; is it relatively pure or grayish?

Colors are combined in painting according to the elements of harmony. Colors emerge from a spectrum, and so they group in sequences. These sequences may be used as a tool for determining what is attractive to the eye, to convey just the right signals to produce the desired effect. Contrary signals to the eye disturb the effect, whether they are noticed consciously, or not.

There are different types of harmonies. Analogous harmony comes from adjacent hues which lie next to each other in the spectrum, such as blue with its adjacents turquoise and violet. Complementary harmonies mix colors which are inherently opposites, like yellow and violet, or orange and turquoise, and red and green. In a balanced harmony the entire color spectrum is exploited. A primary triad includes

magenta, yellow and turquoise. A four color harmony, or tetrad, could include red, yellow, blue-green and violet, for example. In a dominant harmony one color is glorified and its influence extends over the entire design. Harmony is assured by bringing all colors into a consistent relationship.

Another important aspect of painting is the law of field size, or control of the field. An expert in this is able to create unique and startling color illusions. Control of the field is achieved through producing a quality which pervades the entire canvas. It is an illumination quality -- bright, dark, grayish. The artist then adds touches of hue to make the canvas come alive, create a world of its own. Details in the canvas may appear lustrous, iridescent, luminous. Other qualities are transparency, texture, and solidity. To make a lustrous effect, requires mixing the background in shades by adding black. Then, pure intense color in small amounts appears lustrous. Luster depends upon black contrast.

The iridescent effect, like opal or mother-of-pearl, requires a background of a gray field. The predominance of soft gray creates an illusion of mistiness. The luminous effect is complex and subtle. Purity contrast, not value or hue, yields the desired effect. The luminous effect was brought to perfection by Rembrandt. The effect is seen in paintings where the light source is internal, such as a candle or fire-glow. Also, light shining into the eyes blurs vision, so this diffuseness must be accounted for in the painting. Highlights and shadows add the finishing touches. A delicate transition from normal color into shadow, with a diffuse edge simulates "reality."

The Art of Magic

There is magic in art, and art in Magick. The magic of art is its expression of symbol or prototype. Art is the symbolic forming of archetypes working in time. In the creative process, the artist becomes seized or fascinated; the archetype rises up in him and he creates the images in his personal form. He shapes them into a "work" because he has been sufficiently aroused to call forth his creative powers.

This process is analogous to that produced through ceremonial magick. At the culmination of the rite comes the assumption of the godform, where the aspirant is seized by the archetypal power he has called up. The creative power of this form subsumes him. His "work" is in fact the Opus of the Great Work, the process of Self-transformation.

Drama and dance are closely related in origin to ceremonial magic. So is the art of perfumery, through the development of incenses and fumigations. These scents were designed as psycho-sensory evocations. They call forth certain psychological states.

Rhythmic swaying and dancing, and circumambulations are fundamental in ritual. Modern forms of dance have their origins in rites of the past. According to Julian Jaynes, in *The Origins of Consciousness in the Breakdown of the Bicameral Mind*, ballet is intimately linked with the goddess Artemis, which corresponds with path 25, ART.

The golden oracle at Ephesus, famous for its enormous wealth, had trained eunuchs as mouthpieces for the goddess Artemis...and the abnormal dancing on the tips of the toes of modern ballerinas is thought to derive from the dances before the altar of the goddess.

In Magick, the will and the senses conspire to stir the emotions. Through consecrations, oaths, invocations, the aspirant changes his experience of reality. He is transported to another world in a quantum leap of consciousness. A modern, example, which is not magick, per se, is the ability of movie makers to create a simulated 'astral journey.' Caught up in identification with the movie, we are led along through another time, another place, another life, another world. Magick seeks to tap mystical experiences of this type which are internal, and spiritually meaningful.

In Magickal ceremony, the aspirant knows whether the work appeals to him; he may consciously understand, or wish to understand the latent meaning of the rite. In either event he intuitively perceives and apprehends the archetypes and their meaning. They enter into him unconsciously.

In a discussion of Art, it is pertinent to recall that Crowley re-named Path 25, changing its name from Temperance to Art. We may infer from the position of this path on the Tree of Life (between Yesod and Tiphareth), that it concerns harmonization of the archetypal dynamics of "spirit" (Hod/Mercury) and "nature" (Netzach/Venus). Art, then, forms the magickal link between the archetypal and instinctual realms. We may also refer to creative aspects of psychology, technology, alchemy, and magick as artistic expressions. There are also correspondences with Tantra, sex magick, and enflamment.

Entrance to the solar sphere Tiphareth via the 25th Path, Trump XIV, in Magick implies Knowledge and Conversation of the Holy Guardian Angel. In psychology, this process is termed Individuation or coming into consciousness of the Self.

This implies a breaking up of one's involvement in the collective psyche, or participation mystique, and a transformation of personality. To enter this state "balance is required--the ability to let the ego move downstream, to lose its centrality and control, to give in, submit, enjoy and pleasure itself in the floodtide of becoming and then return to its central point, enriched by the experience; strengthened by its weakness, in its recognition of the limitations imposed by living entirely within the world of the natural standpoint."

In his work *Ego at the Threshold*, Edward Sampson substitutes the word 'transcendent' for the power of archetypal spirit, and states that "Balance is achieved when the natural standpoint and the transcendent meet in an atmosphere that permits the transcendent more than lip-service guidance in our everyday lives; with such balance we can extend ourselves beyond the everyday and experience a world always available; balance is achieved when the ego moves off to the side, enjoying living life, not merely thinking about it."

Magick, as art, carries us into the sacred realm outside of time and space, and may even predict the future. Art may be defined as recognition, selection and projection. Craft, on the other hand, (including Wicca, often termed 'the Craft') connotes the manual dexterity, charm or ability to create what you want. Art is a process, not a product, not the selection of a product.

Art and magick build pathways in the mind for energy to flow; it develops a characteristic archetypal pattern. In the "arte de magick," man gives form to his own vision of Reality. The psychological effect of ceremony is profound and transformative; nature loses her omnipotence, and the aspirant gains independence, a sense of purpose. Magick mediates between the bizarre inner world and ego-consciousness.

The Art of Alchemy

Another variation on the theme of magic is the alchemical Opus. It also involves an aspirant practicing the process of self-transformation. Carl Jung and his followers have detailed the correspondences between the alchemical work and modern psychotherapy. It seems, in fact, that alchemy is an antique form of psychotherapy, or service to the psyche, (or the gods).

In projecting the contents of his unconscious onto the elements of the work (sun = gold, moon = silver, mercury = quicksilver, etc.) the alchemist is able to unite the opposites within himself and effect the transformation into the Philosopher's Stone. This stone, in fact, represents the point of maximum equilibration. Alchemy is a sacred work, requiring the aspirant to be Self-oriented, rather than ego-oriented.

The individual is considered a microcosm of the whole of existence:

The individual psyche is and must be a whole world within itself in order to stand over and against the outer world and fulfill its task to be a carrier of consciousness. For the scales to be balanced, the individual must be of equal weight to the whole world.

In *Psychotherapy and Alchemy*, Edward Edinger lists the following among the alchemical operations: calcinatio, solutio, coagulatio, sublimatio, mortificatio, separatio, and the final coniunctio which results in the birth of the homunculus or Philosopher's Stone.

Poetic Metaphor:

For the poet is a light and winged and holy Thing and there is no invention in him until he has been inspired and is out of his senses. And the mind is no longer in him. When he has not attained this state, he is powerless and unable to utter his oracles. --Plato/Ion

There is an ecstatic inspiration common to vision and word, song and prophecy. The origins of poetry lie deep in the history of mankind. In the remote past the subconscious spontaneously produced magical incantations and songs. This

transpersonal expression was fundamental in the creation of society or culture. The rhythmic sensuous images of prophecy and poetry enriched the consciousness of the individual and group, alike.

In Plato's viewpoint the poet does not awaken the images; rather, the images awaken him. The gift of the poet is to capture and record the interrelationship of an archetype with his intellectual and emotional complexes, in an instant of time. Assuming that his technique is proficient, his task is to prevent the ego from tampering with the poem, refining or tempering the contents of the psyche, convinced of personally writing (rather than receiving) the poem.

Among the metaphors of poetic speech are perceptions made through paranormal experiences of the senses. An example is "seeing music", "hearing the stars sing" or experiencing "bitter cold." In each descriptive phrase a quality or experience of one sense is combined with an object not ordinarily associated with it. Nevertheless, an understandable meaning is conveyed intuitively. We all sense the inherent meaning of "warm or cool colors" or "bright sounds". This perceptual phenomenon is known as synesthesia, or sensory blending.

This sensory blending is common in mystical experiences of an "extrasensory" nature. Actually they never are perceived through an extra sense, at all. But through a re-visioned experience of the normal five senses. Poets are able to 'touch the stars', or see "dawn smile", or be "lulled by glowing light as if it were music". Pervading a high degree of poetic metaphors are images of light and sound, in which brightness equates with loudness and brightness and pitch have an affinity. However, this doesn't mean loudness and brightness are perceptually or metaphorically equivalent in all cases.

There are many examples of poets who were involved in a spiritual quest. William Blake, of course, combined both his talents in poetry and illustration. The 19th century revival of the Western occult tradition influenced the works of W. B. Yeats and Aleister Crowley. In America, the New England contingent of Transcendentalists included Ralph Waldo Emerson, Emily Dickenson and others who sought reality through spiritual intuition.

Some of the most soul-moving poetry comes from the writings of the Saints or Masters of the East, the mystic poets. There is a great deal of beautiful Sufi poetry. Sikh scripture is also replete with references to the Light and the Sound of divinity. Kabir and Guru Nanak were saints who expressed their love for the Lord in poetry. Other oriental poetic forms include the Zen Koan, and Haiku. Both convey a profound spiritual message in a minimal number of words.

Modern examples of the psychological quest are poetess Anne Sexton, Rainier Maria Rilke, Walt Whitman and Robert Bly.

The "Artistic Temperament"

The public has a way of creative mythologizing which makes the artist more than an ordinary person. The phenomena which creates movie stars and superstars occurs in other fields and projects the "mad scientist", or "eccentric artist."

Part of the artist's gift is his relative lack of adaptation to the values of "average" society. The artist is aloof from daily life, in a world of his or her own. Or, if they are close to the streets, they have a radically different perspective on things which produces his unique vision. Rodin, Picasso, and Dali are all examples of psychological "rugged individualism." An artisan has a trade; an artist lives an alternative lifestyle. It is impossible to analyze why this impulse occurs to one individual and not another.

According to Jung, an artist leads a dual existence; he mediates between world like a shaman:

In his capacity of artist (the person)...is objective and impersonal -- even inhuman -- for as an artist he is his work, and not a human being.

Jung observed that every creative person could be considered a "duality or a synthesis of contradictory attitudes," a unique human with a personal life, but also the carrier of an impersonal creative process. The artist's creative achievement cannot be accounted for by an examination of his personal psychology. A Masterwork stands on its own. Jung even went further by stating that:

The personal life of the poet cannot be hold essential to his art -- but at most a help or a hindrance to his creative task. He may go the way of a Philistine, a good citizen, a neurotic, a fool, or a criminal. His personal career may be inevitable and interesting, but it does not explain the poet.

Society frequently projects artists are folk heroes or antiheroes. In Sam Keen's *Voices and Visions*, Joseph Campbell states:

The creative mythology of the modern artists arises when the individual has an experience of his own -- of order, or horror, or beauty -- that he tries to communicate by creating a private mythology. So it is the creative individual who must give us a totally new type of nontheological revelation, who must be the new spiritual guide.

Campbell sees creative artistic work as a "response to the need to escape from danger and chaos and find some new security." This inner quiet repeats the main theme of the hero monomyth (see Book VII, Tiphareth for Hero archetype).

Further development of consciousness leads the artist to acute perception. He no longer simply reflects the collective values, he is now free to criticize them. Campbell states, "...the world of the artist or the intellectual must be fierce, accurate in its judgment of the fault in a person or society. But along side this judgment there must be affirmation and compassion. What is important is to keep the dissonance between judgment and compassion."

It is curious that Campbell should employ precisely these words. This judgment and compassion refer explicitly to the qualities known respectively (in qabalistic terms), as Geburah/Mars and Chesed/Jupiter. They are the spheres which are encountered immediately after Tiphareth-consciousness is achieved. They represent aspects of the Individuality, just as the lower spheres denoted aspects of the personality.

Specifically, Geburah represents the force aspect of individuality. Chesed represents and transmits the ideal form of the individuality from the Supernal Triad to consciousness. The Supernal Triad (or top three spheres) represents existence so ideal the mind cannot conceptualize it. It is the true home of the soul.

For consciousness to enter this level of mystical attainment means balancing the forces of Geburah and Chesed on the Middle Pillar. This harmonization corresponds with path 13, Trump II, *The High Priestess*. We may consider *The High Priestess* a higher octave of "Art," since both are lunar in nature. The Priestess knows the art of piercing the veil, or soul-making.

Not all would-be artists, however, attain this integrated ideal. Like shamans, some artists have inherently imbalanced personalities. Many experience a gut-wrenching pathos, a sad yearning which may be encoded in their work. Susanne Langer describes her reaction to such art in *Mind: An Essay on Human Feeling*.

The fact that I know as much as I do of the essence of pathos comes from meeting with great music (and art). If those passages make me sad is an extraneous and irrelevant detail. My grasp of the essence of sadness...comes not from moments when I have seen sadness, but from moments when I have seen sadness before me released from entanglements with contingency. We have seen this in great beauty, in the works of our greatest artists.

In therapy, unexpressed pathos (which is an indicator of the Puer archetype; see Chapter 7, Tiphareth), is sometimes given vent through creative activity. The therapeutic value of art has long been recognized. Jung encouraged his patients to give free reign to their preconscious contents by painting in a spontaneous manner. However, Langer points out that,

It may well be that an artist never creates a work of art unless he is emotionally stirred; if so, it does not follow that this, his own emotional excitement is what he portrays. ...may portray something quite independent of his own psychic processes. He may go beyond the thing felt.

In art therapy, the resulting paintings often lack technical precision, but show striking examples of the symbols and imagery of the individuation process. The most prominent motif in these artistic expressions is the mandala. It is a variation on the magical circle, a symbol of the unfolding Self.

A modern cultural example of unfolding variations on the mandala comes from a branch of technological art which corresponds with Path 25: Aerospace. The quest is sublimated now into the creation and indwelling of a new extension of mankind's world -- the space station. The majority of these are wheel-shaped for efficiencies

sake. Here the puer tendency to verticality and ascensionism is disciplined to very pragmatic ends.

There is always the puer complex at work motivating the artist, as well as an element of Narcissism. The artist has a love relationship with the image of himself which is projected onto the canvas. Both imaginal art and archetypal thought enliven the world of fantasy and imagination, by turning vision inward. They are a release from the literalization of object-orientation. They take the psychic energy which normally flows outward, and turn it in.

Art therapy is a way of integrating the values of archetypes. But in order for the values of, let's say the anima or animus, to be incorporated into the personality of the artist, he or she must assimilate the psychological significance of their own work. Otherwise, the creative urge may be just another way of projecting one's inner reality into the outer world. This integration does not always happen spontaneously to the artist. If this were so, every great artist or poet would be a Self-Realized or God-Realized individual. History has shown different.

Discipline is not the only distinction between the true artist and the dabbler or dilettante. To subject oneself to hard work and the evaluation of one's fellow man is no small accomplishment. The development of artistic insight rather than an externalization of one's specific neurosis is another. One must combine the innate curiosity and vitality of youth with the maturity and dedication of experience. In her classic on the archetype of Eternal Youth, *Puer Aeternus*, Marie Louise von Franz discusses the artist and puer complex.

In the really great artist there is always a puer at first, but it can go further. It is a question of feeling-judgment. If one ceases to be an artist when ceasing to be puer, then one was never really an artist. Objectifying the puer, is only the first step. Puer has to learn to carry on with the work he does not like, not only with work where he is carried away by great enthusiasm, which is something everybody can do...being carried away by a festival of work. Puer has to kick himself again and again to take up the boring job through sheer will power.

Puer is also the impulse to feel special, precocious, or gifted. The complex is a desire. What, then, are the psychological criteria for an "artist"? Von Franz lists some in her work, *Creation Myths*.

...these four factors -- originality, consistency, intensity, and subtlety -- (show) the differences between someone who has creative fantasies and someone who is only spinning neurotic nonsense...the continuity of devotion an individual is capable of giving his fantasy is very important and shows the difference between someone who is gifted with creative fantasy and somebody sucked into sterile unconscious material.

There are also certain psychological types more adapted or inclined toward artistic expression. Different types -- both introverts and extroverts -- pursue different areas

of art, such as fine art or performance art. Many artists are Dionysian temperaments strong on Sensation-Perceiving (SP).

This penchant for acting on impulse contains a seeming paradox, for SPs, living only for immediate action, become the world's great performing artists: the virtuosos of art, entertainment, and adventure. The great painters, instrumentalists, vocalists, dancers, sculptors, photographers, athletes, hunters, racers, gamblers -- all need the skills which come only from excited concentration on an activity for long periods. No other type can mobilize what virtuosity takes: untold hours of continuous action. ...In a sense the SP does not work, for work implies production, completion, and accomplishment. The SP has no such desire for closure, completion, finishing. He is process-oriented. What ensues from his action is mere product, mere outcome, mere result, and is incidental. Thus, the SP's "work" is essentially play.(Kiersey, Bates, 1978)

In Myers-Briggs terms, ISFP is known as "the Artist"; ESFP as "Entertainer"; INFJ as "Author"; INTO as "Architect"; ENTP as "Inventor"; ISTP as "Artisan"; while ESTP is a born "Promoter".

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PATHWORKING CORRESPONDENCES

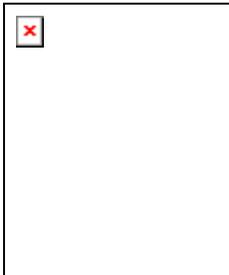
KEY #	ASTROLOGY	NAME	TON E	COLOR	SCENT
0		Ain			
1	Origin	Kether		White	Ambergris
2	Zodiac	Chokmah		Gray	Musk
3	Saturn	Binah		Black	Myrrh, Civet
4	Jupiter	Chesed		Blue	Cedar
5	Mars	Geburah		Red	Tobacco, Leather
6	Sun	Tiphareth		Yellow	Frankincense
7	Venus	Netzach		Green	Benzoin, Rose, Sandal
8	Mercury	Hod		Orange	Storax
9	Moon	Yesod		Violet	Jasmine, Ginseng
10	Earth	Malkuth		Tertiaries	Dittany
11	Air	Fool	E	Yellow	Galbanum
12	Mercury	Magician	E	Orange	Storax, Mastic
13	Moon	Priestess	G#	Violet	Camphor, Aloes
14	Venus	Empress	F#	Green	Sandalwood, Myrtle
15	Aries	Emperor	C	Scarlet	Dragon's Blood
16	Taurus	Hierophant	C#	Red-Or	Storax
17	Gemini	Lovers	D	Orange	Wormwood
18	Cancer	Chariot	D#	Or-Yellow	Onycha
19	Leo	Strength	E#	Yellow	Frankincense
20	Virgo	Hermit	F	Yellow-Gr	Narcissus
21	Jupiter	Wheel of Fortune	A#	Blue	Saffron
22	Libra	Adjustment	F#	Green	Galbanum

23	Water	Hanged Man	G#	Blue	Myrrh
24	Scorpio	Death	G	Blue-Gr	Benzoin
25	Sagittarius	Art	G#	Blue	Lign-Aloes
26	Capricorn	Devil	A	Violet	Musk, Civet
27	Mars	Tower	C	Red	Dragon Bl.
28	Aquarius	Star	A#	Purple	Galbanum
29	Pisces	Moon	B	Magenta	Amergris
30	Sun	Sun	D	Yellow	Cinnamon
31	Fire	Aeon	C	Red	Olibanum

32	Saturn	Universe	A	Indigo	Storax
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CORRESPONDING THERAPIES

KEY 3	THERAPY
1-5	Mystical Meditation
6	Transpersonal Psychologies
7	Mental Imagery - Eidetic Therapy
8	Humanistic Psychology - Gestalt - T.A.
9	Freudian Analysis, Sex Therapy
10	Body Work
11	Individuation, Psychotypes
12	Journal Work, NLP
13	Imaginal Psychology
14	Dance Therapy, Aromatherapy
15	Primal Scream
16	Bioenergetics
17	Dialogue
18	Simple Counseling
19	Biofeedback
20	Sand Play
21	Gestalt
22	Polarity Therapy
23	Active Imagination
24	Rebirthing
25	Art Therapy, Sandtray
26	Ego Therapy
27	Assertiveness Training
28	Humanism, Talk Therapies
29	Hypnosis, Dreamwork
30	Psychosynthesis
31	Psychodrama
32	Behavior Modification



TIPHARETH

Title: Tiphareth, Beauty

Magical Image: Majestic King, A Child, Sacrificed God

Position on the Tree: Center of the Middle Pillar

Yetziratic Text: *The Sixth Sephira is called the Mediating Intelligence because in it are multiplied the influxes of the Emanations; for it causes that influence to flow into all the reservoirs of the blessings with which they themselves are united.*

God Name: Tetragrammaton Aloah Va Daath

Archangel: Raphael

Order of Angels: Malachim, the Kings

Planetary Correspondence: The Sun, Shemesh

Spiritual Experience: Vision of the Harmony of Things, Mysteries of the Crucifixion

Virtue: Devotion to the Great Work

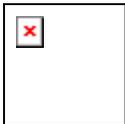
Vice: Pride

Physical Correspondence: The Breast

Symbols: Lamén, Rose Cross, Calvary Cross, Cube, truncated Pyramid, Diamond

Tarot Cards: The four Sixes

Color: Golden Yellow



TIPHARETH, Sphere of the Sun

"1043.02 The sixness phenomenon tantalizingly suggests its being the same transformative sixness as that which is manifest in the cosmically constant sixfoldness of vectors of all the topological accountings; and in the sixness of the equieconomical alternative degrees of freedom inherent in every event; as well as in the minimum of the six unique interrelationships always extant between the minimum of four "star events" requisite to the definitive differentiation of a conceptual and thinkable system from out of the nonunitarily conceptual but inherently finite Universe, because of

the latter's being the aggregate of locally finite, conceptually differentiable, minimum-system events."

--Buckminster Fuller, *Synergetics 2*

Beauty -- art, is largely a matter of the unification of contrasts. Variety is essential to the concept of beauty. The supreme beauty, the height of finite art, is the drama of the unification of the vastness of the cosmic extremes of Creator and creature.

Tiphareth is the Sphere of Beauty, and Perfect Equilibrium. It is the gateway to the Causal Plane of Universal Mind, or the Self. The translation from the Astral to the Causal Plane is as dramatic as that between Physical and Astral. It requires the development of a more subtle aspect of the Body of Light, so the soul may experience that level of awareness. The Causal Body is called a Diamond Body, or the Ruach -- the moral soul.

Tiphareth represents a comparatively high initiation for religious, or mystical man. Here the entire life is dedicated to spiritual devotion, in a 24 hour-a-day ritual. This initiation to a Way of Life is experienced as a death for the ego. It leads to spiritual rebirth and ascension to higher imaginal realms in mystic ecstasy. The Great Work becomes the priority of one's existence.

The spiritual bud formed in Yesod, flowers in Tiphareth in Enlightenment. Many systems describe this grade through various images; Self, Holy Guardian Angel, Philosopher's Stone, Universal Mind, Brahm.

1. Physical Plane: Tiphareth represents the Vision of the Harmony of Things, and is the point on the Tree of Life of maximum equilibration. This same formula is represented in mathematics as the Vector Equilibrium Matrix. The Cube is a magickal symbol for Tiphareth. The VEM is an octahedron-within-a-cube, which is also the atomic structure of the diamond.

2. Astral Plane: A contemplative life in harmony with spiritual principles becomes the primary ritual. The magical images for Tiphareth include a magickal or divine child; a resplendent king, and a sacrificed God. These represent stages in the Mystery of Death and Rebirth. Tiphareth also corresponds with the Egyptian god, Osiris. Initiation on the path to God-Realization turns one's attitudes upside-down. Devotion to the Great Work; Pride.

3. Causal Plane: In the Causal, the Vision of Harmony indicates that all spiritual progress comes through the principle of Love. It implies the highest ethical standards in both behavior and thought. The Syntactic Mode means one has a precise cognitive awareness concerning the relative value of mystical experiences, and has the verbal creativity for expression. Thus psychology can express in words what mystics experience through intuition.

Syntactic Mode includes Tantric sex, creativity, alpha states, etc. It verges of knowledge Ecstasy, but is mainly inspirational in quality.

4. Archetypal Plane: Tiphareth is the Royal Marriage of the Soul and the Lord. The projections of anima or animus have been returned to their proper level in the unconscious. The King and Queen are united: Spirit and Soul, distinct but conjoined. The aspirant enters a period of exploration of soul by spirit for psychic fecundation. This union with the Self, uniting all opposites is an illumined lunacy.

Tiphareth represents the halfway point on the continuum of spiritual development. It indicates the ability to withdraw the attention from outside to inside and hold it there. One contemplates the "radiant form" internally. Self-Realization opens the beginning of the path to God-Realization through Grace, along Path 13.

Approaching Tiphareth there is a quiet period of deep reflection and assimilation in which you incorporate or build in the knowledge and realization developed in the other spheres. Until this maturing of knowledge into automatic responses has taken place the work is not finished; there is a gestation period which precedes the birth of the higher consciousness upon the level of personal awareness.

That birth establishes the domain of Spirit over all the activities of personality. There is a gradual incorporation of superconscious energies into your vehicles of personality which prepares the way for the dominion of the Higher Self over the lower nature. Accomplishment is brought about by conscious transparency. . .conscious mediatorship for a higher power. It is the result of willingly and deliberately acting as a quiet channel through which superconscious energies can be transmitted to levels below.

We act as such a channel by learning how to give some form to our spiritual insights. The influence and multiplication of such forms in the collective human consciousness strengthens its higher impulses and eventually will set it free from slavery and delusion. We need to help one another. We need to use the personal level faculties -- reason, analysis and discrimination, compassion -- as far as they go. There must be a base of stabilized positive personality attributes to function as a channel for the Self. One example of this is in regard to sex. A highly developed love nature holds it in great reverence, since the capacity for deep compassion and selfless love has been cultivated. This purifies our responses.

What we learn about on the three paths leading to Tiphareth is crucial to stabilizing contact with the Self. The purification and transformation of personality must be reflected in the habitual behavior, that is, established in Yesod. Yesod is the plane of mobile forces and changing patterns. It is here that transformations -- changes in form -- are to be effected. Tiphareth, then, is the most advanced level of personality unfoldment. The three paths challenging the aspirant for Tiphareth are those of ART, the Devil and Death. The personality finds itself confronted with the Angel of the Self, the Devil, and the ever-looming specter of mortality, Death.

The Devil has to do with liberation from the delusion of outer appearances. It connects Hod with Tiphareth. The Angel of Art is a symbol of the Self and this path links Yesod with Tiphareth. Its tests concern destroying the false sense of personal separateness and its consequent selfishness. It means exposing the vestiges of spiritual and personal pride and prejudice that keep us from union with the Self.

Death represents the utter destruction of the personal sense of will which distorts the Divine Will -- ego death. These personality hindrances must be transmuted and equilibrated. Basically these tests are concerned with intensifying your ability to discriminate in a higher, finer sense. By applying them to all aspects of your personality you should begin to detect where you are still acting in ignorance and self-delusion (psychological blind-spots).

You should further be able to acknowledge any such shortcomings without regret but with an eager willingness for change. Our eagerness enables the Higher Self to reveal those deep-rooted patterns of error that the personal level cannot detect in itself. When the underlying cause is perceived then we must act and continue to act. The method is given to rid ourselves of unwanted tendencies and habits -- whether they are mental, emotional or physical -- by repeatedly thought-stopping and introducing an opposite corrective pattern until the required balance is achieved. This is the work of the Self when it appears as the Angel, the Devil of enslavement and the skeleton of Death. These tests refine the personality to act as a receiver and transmitter of superconscious energy to the physical plane. Personal expression gets refined and separated from ignorance and delusion.

The emotional-desire nature of Netzach is purified; the intellectual reason and discriminating faculties, likewise. Correct habits are established in the astral body -- such as preparedness for meditation at a regular time -- and the physical body reaps the rewards of inner harmony.

***Ayin*, the Path of Renewal, is concerned with helping us develop a more penetrating vision so that we see behind surface appearances. Samekh is concerned with liberating ourselves from the many errors that keep us acting as if we were really separate beings. Even spiritual aspiration can be trained by separation. It will express as a desire to be appreciated and considered highly evolved by others. Advanced aspirants are particularly susceptible to this spiritual pride which stands as a major hindrance unless realized and cleared away. The Path of Nun is the test applied to Netzach to help you realize that control of desire means control of imagination.**

In Hod, our goal was to begin using the faculties of reason, analysis and discrimination in ways that aid spiritual enlightenment instead of warring against it. The test of *Ayin* tells us to look for that proof-seeking skepticism that binds us to earth. Samekh is the higher use of discrimination that keeps intellect from obstructing the conscious realization of the Unity of Being (holistic perspective). The test of Nun applied to Hod should help alert you to ideas you express that betray a fear of death and a consequent disbelief in immortality. Repeatedly counteract unwanted habits of mind by an opposing idea. Recall to mind the abundant evidence

that the Real Self cannot die. Unworthy responses, such as prejudice, criticisms, power trips, and impatience with others are certainly divisive in nature.

In truth, the higher Self does all the work of integration, but from the level of personality it takes seemingly persistent and continuous effort. Entrance to Tiphareth means, at first, sporadic contact with the Self. We become aware of the discrepancies between the Beauty we glimpse during union and the routine acts and attributes of our personalities. This may be painful, since we identify with those acts and our liberation is not yet complete. We have been preparing the personality for conscious union. Now further transmutation continues, intensified by regenerated power. You know what personal acts you need to change to reveal the influence of the higher Self, so personal expression shows its impress. Your capacity for love, service, and unselfishness will increase, even though the lower personal self would rather stay in its delusion of separateness.

Once we see personal error, we can free ourselves from perpetuating them by repeatedly refusing to respond in ways that keep them alive. These include anger, greed, vanity, envy and attachment as well as criticism of others. When we deny them expression we clear the karmic obstructions that keep us from enjoying conscious linkage with the higher Self.

That Self, which is One in all humanity, cannot get through until our treatment of others shows we understand. Our new image represents the unobstructed expression of the higher Self through our personalities. It is first established in the emotional-desire nature of Netzach. The goal is the complete dominion of the higher Self over the lower nature. In Netzach this goal or will-idea is formulated into our philosophy of life and becomes the main object of desire. This is the core nature of Bhakti. It appropriates the energy of the many conflicting subpersonalities of our lower nature. It purges the meanderings and idle wishes of the undirected imagination.

We may be faced with the truth that much of what you considered loving and brotherly in ourselves was quite tainted with a desire to be admired and looked up to by others. It is through such realizations that true humility becomes possible. When we can face the truth that some of our beneficent acts were bound up with a secret satisfaction in appearing highly evolved, we realize how far we still have to go. Our ideal needs to be elaborated and given fuller shape through the practice of meditation, plus the actual ways and means for expressing the Self in daily life need to be stabilized, grounded. We must still the mind so the Voice of the Silence -- the higher Self, can be heard. Patience is most important; hastiness is a form of lust -- "lusting for results."

"Lesser Adept" means the 'I' consciousness centered in Tiphareth is the link through which superconscious forces are transmitted to subconscious levels. The transformation is hinted at in the word Tiphareth. It is from a root 'par' which means to gleam, to explain, to make clear -- purity free of distortions. It forms a sure foundation for the reception and right interpretation of intuitions. Otherwise superconscious light is experienced as bliss, ecstasy or joy.



Once union with the Self is experienced, the orderly unfoldment of the potentials attributed to the sphere above Tiphareth is essentially assured. A state of continuous contact and expanded awareness, of freedom and inner harmony may take a very long time to perfect, however. The ancient alchemists used to say they had to make the Philosopher's Stone, over and over. That is what daily practice is for -- to keep that flame alive. The higher mind which enables us to think, to will, to decide anything at all -- is not personal. Every seemingly self-originated thought or volition or decision is actually derived from this higher impersonal source. So we need to connect with it, in constant remembrance, drawing on the nourishment of the Audible Life Stream.

In the early stages the impact of this truth requires some rather difficult adjustments. There is a period when the enormity of the task facing yo appears impossible to complete -- in fact, it never is completed. To actually reverse our moment by moment thinking and feeling and stand up for the values of the Self seems at first an impossible job. Consistency is all-important -- it creates a new groove in the mind. It stabilizes a pattern of attention turned inward and eventually brings illumination through grace. Its radiance refers to a supernal realization, experienced in the whole psychophysical system. This is why it also healing in nature.

There is no short cut, besides meditation. It takes discipline, great endurance and daily, hourly effort to reverse the seeming reality of personal isolated will. If we are lukewarm or irregular in our efforts, then the time of our higher awakening is forestalled. Through the Saturnian influence of the Neshamah, the Divine Soul in Binah, discipline is applied to the entire area of the mind. Concentration and meditation gradually prepare us to receive true intuitional guidance from the Radiant Form. Actually it is this unfolding contact with Neshamah -- at first, so subtle -- that is responsible for every expansion of consciousness, every illumination on the Path of Return.

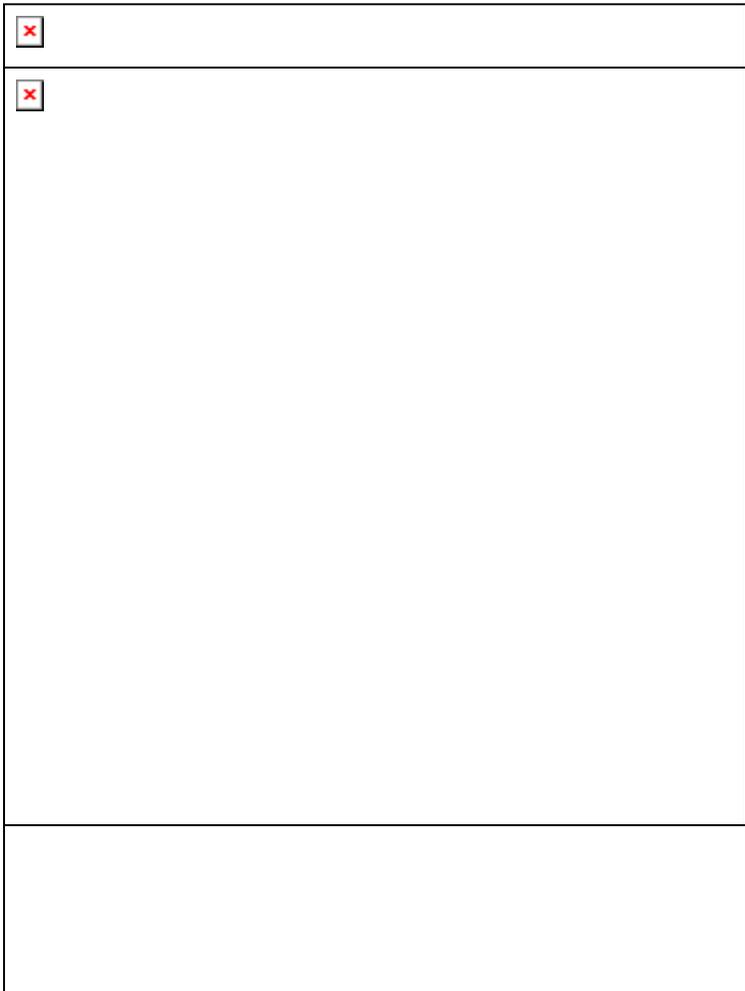
Remember, it is not individual awareness that is being renounced. That is the gift of long eons of existence in the manifest worlds. It is separative goals that are being renounced. "Not my will but Thy Will be done." What we want to do is dedicate individualized awareness to the purpose of the Unified Whole. Then we come to know ourselves individual cells in the body of humanity. As awakened fragments, we turn our every effort toward bringing our whole self to the perfection of its goal. We, as humans, are the fruit of the Tree of Life.

III. BRIAHA, The Causal Plane of Mind

The transition from the Astral to the Causal Plane of awareness is as distinctive as that between Physical and Astral. It is however, a bit tricky to define since it enfolds "normal ego consciousness" (Tiphareth of Yetzirah) as its point-of-departure.

Perhaps a story will clarify this relationship of the ego to the Ruach or Self. The magical image of this Sphere is the resplendent King on His Throne. Maimonides writes:

"We do not sit, move, and occupy ourselves when we are alone and at home, in the same manner as we do in the presence of a great king; we speak and open our mouth as we please when we are with the people of our own household and with our relatives, but not so when we are in a royal assembly. If we therefore desire to attain human perfection, and to be truly men of God, we must awake from our sleep, and bear in mind that the great king that is over us, and is always joined to us, is greater than David and Solomon. The king that cleaves to us and embraces us is the Intellect that influences us, and forms the link between us and God."





THE LADDER

A. Crowley, *Winged Beetle*, 1910

"I will arise and go unto my Father."

MALKUTH

**Dark, dark, all dark. I cower, I cringe.
Only above me is a citron tinge
As if some echo of red, old, and blue
Chimed on the night and let its shadow through.
Yet I who am thus prisoned and exiled
Am the right heir of glory, the crowned child.**

**I match my might against my Fate's,
I gird myself to reach the ultimate shores,
I arm myself the war to win: -
Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.**

TAU

**I pass from the citrine; deep indigo
Is this tall column. Snakes and vultures bend
Their hooded hate on him that would ascend.
O may the Four avail me! Ageless woe,
Fear, torture, throned the threshold. Lo! The end
Of matter! the immensity of things
Let loose - new laws, new beings, new conditions; -
Dire chaos; see! these new-fledged wings
Fail in its vagueness and inanitions.
Only m circle saves me from the hate
Of all these monsters dead yet animate.**

**I match my might against my Fate's
I gird myself to reach the ultimate shores,
I arm myself the war to win: -
Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.**

YESOD

**Hail, thou full moon, O flame of Amethyst!
Stupendous mountain on whose shoulder rest
The Eight Above. More stable is my crest**

Than thine - and now I pierce thee, veil of mist!
Even as an arrow from the war-bow springs
I leap - my life is set with loftier things.

I match my might against my Fate's
I gird myself to reach the ultimate shores,
I arm myself the war to win: -
Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.

SAMEKH

(and the crossing of the path of Pe)

Now swift, thou azure shaft of fading fire,
Pierce through the rainbow! Swift, O swift! how streams
The world by! Let Sandalphon and his quire
Of Angels ward me!

Ho! what a planet beams
This angry ray? Thy swords, thy shields, thy spears!
Thy chariots and thy horsemen, Lord! Showered sphere
Of meteors war and blaze; but I am I,
Horus himself, the torrent of the sky
Aflame - I sweep the stormy seas of air
Towards that great globe that hangs so golden fair.

I match my might against my Fate's
I gird myself to reach the ultimate shores,
I arm myself the war to win: -
Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.

TIPHARETH

Hail, hail, thou sun of harmony.
Of beauty and of ecstasy!
Thou radiance brilliant and bold!
Thou ruby rose, thou cross of gold!
Hail, centre of the cosmic plan!
Hail, mystic image of the Man!
I give the sign of slain Asar.
I give the sign of Asi towering.
I give the sign of Apep, star
Of black Destruction all devouring.
I give thy sign, Asar, re-risen: -
Break, O my spirit, from thy prison!

I match my might against my Fate's
I gird myself to reach the ultimate shores,
I arm myself the war to win: -
Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.

GIMEL

(with the crossing of the Path of Teth)

Hail! virgin Moon, bright Moon of her
That is God's thought and minister!
Snow-pure, sky-blue, immaculate
Hecate, in Thy book of Fate
Read thou my name, the souring soul
That seeks the supreme, sunless goal!

And though, great Sekhet, roar! Arise,
Confront the lion in the way!
Thy calm indomitable eyes
Lift once, and look, and pierce, and slay!

I am past. Hail, Hecate! Untrod
Thy steep ascent to God, to God!
Lo, what unnamed, unnamable
Sphere hangs above inscrutable?
There is no virtue in thy kiss
To affront that soul-less swart abyss.

I match my might against my Fate's
I gird myself to reach the ultimate shores,
I arm myself the war to win: -
Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.

DAATH

I am insane, My reason tumbles;
The tower of my being crumbles.
Here all is doubt, distress, despair;
There is no force in strength or prayer.
If pass I may, it is my might
Of the momentum of my flight.

I match my might against my Fate's
I gird myself to reach the ultimate shores,
I arm myself the war to win: -

**Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.**

**GIMEL
(and the crossing of Daleth)**

**Free from that curse, loosed from that prison;
From all that ruin am I risen!
Pure still, the virgin moon beguiles
My azure passage with her smiles.**

**Now! O what love divine redeems
My death, and bathes it in her beams!
What sacring transubstantiates
My flesh and blood, an incarnates
The quintessential Plan? What shore
Stretches beyond this secret door?
Hail! O thou sevenfold star of green,
Thou fourfold glory - all this teen
Caught up in an ecstasy - a boon
To pass me singing through the moon!**

**Nay! I knew not what glory shone
Gold from the breathless bliss beyond:
But this I know that I am gone
To the heart of God's great diamond!**

**I match my might against my Fate's
I gird myself to reach the ultimate shores,
I arm myself the war to win: -
Lift up your heads, O mighty gates!
Be ye lift up, ye everlasting doors!
The King of Glory shall come in.**

KETHER

**I am passed through the abyss of flame;
Hear ye that I am that I am!**

THE RETURN

**Behold! I clothe mine awful light
In yonder body born of night.
Its mind be open to the higher!
Its heart be lucid-luminous!
The Temple of its own desire
The Temple of the Rosy Cross!**

As Horus sped the flame, Harpocrates
Receive the flame, and set the soul at ease.
I who was One am One, all light
Balanced within me, ordered right,
As it was ever to the initiate's ken,
Is now, and shall be evermore. Amen

BOOK VII:

Sphere 6: TIPHARETH, the Sun



TIPHARETH: Table of Contents

(Syntactic Mode or Self-Realization; the Causal Body; Alpha Training;
the *Ruach*;
Universal Mind; I-Thou Relationship; Meditation and Peak Experience)

PART III, BRIA'AH, Causal Plane of the Mind

The Basics: TIPHARETH

TIPHARETH, Sphere of the Sun

1. PHILOSOPHY

- a. Initiation: Minor Adept
- b. Ritual: Knowledge & Conversation with the Transcendent Function; Coniunctio;
The Royal Marriage and Sex Magick
- c. Practical QBL: A Description of Meditative and Exalted States; The Body of

**Light,
Part 2: the Causal Body**

2. PSYCHOLOGY

a. Psychological Model: Self-Actualization and Well-Being

- (1). The Heroic Quest for Self Development**
- (2). The Syntactic Mode and Creativity**
- (3). Varieties of Spiritual Rebirth**
- (4). Androgyny and Individual Wholeness**

b. Archetypal Encounters:

- (1). Hero/Heroine**
- (2). The Divine or Magickal Child**
- (3). The Puer/Senex Archetype**
- (4). Puella and the Wise Old Woman**
- (5). Puer/Puella Relationships of Perpetual Adolescence**
- (6). The Wounded Healer and the Mana Personality**

c. Mythic Correspondence:

- (1). Solar Gods: Ra, Osiris, Apollo, Mithras, Christ**
- (2). The Vegetation Mysteries of Dionysus and Attis**
- (3). Eros and Psyche, an Archetype of Relationship**
- (4). Ulysses or Odysseus, Wounding and Healing**

3. ASTROLOGY AND ALCHEMY

a. The Meaning of the Progressed Sun in Astrology

b. The Alchemical Mode of Imagination (Unus Mundus/Holistic Worldview)

c. The Diamond Body and Circulation of the Light (Vector Equilibrium)

4. ORIENTATION/EXERCISE

a. Re-Visioning Middle Pillar Exercise: Torus/Twistor Model

b. Psi Physiology, "Meditation and Resonance Effects"

c. Magical Use of Standing Waves and Geometrical Matrices

TIPHARETH, Sphere of the Sun

Tiphareth is the Sphere of Beauty, and Perfect Equilibrium. It is the gateway to the Causal Plane of Universal Mind, or the Self. The translation from the Astral to the Causal Plane is as dramatic as that between Physical and Astral. It requires the development of a more subtle aspect of the Body of Light, so the soul may experience that level of awareness. The Causal Body is called a Diamond Body, or the Ruach -- the moral soul.

Tiphareth represents a comparatively high initiation for religious, or mystical man. Here the entire life is dedicated to spiritual devotion, in a 24 hour-a-day ritual. This initiation to a Way of Life is experienced as a death for the ego. It leads to spiritual rebirth and ascension to higher imaginal realms in mystic ecstasy. The Great Work becomes the priority of one's existence.

The spiritual bud formed in Yesod, flowers in Tiphareth in Enlightenment. Many systems describe this grade through various images; Self, Holy Guardian Angel, Philosopher's Stone, Universal Mind, Brahm.

1. Physical Plane: Tiphareth represents the Vision of the Harmony of Things, and is the point on the Tree of Life of maximum equilibration. This same formula is represented in mathematics as the Vector Equilibrium Matrix. The Cube is a magickal symbol for Tiphareth. The VEM is an octahedron-within-a-cube, which is also the atomic structure of the diamond.

2. Astral Plane: A contemplative life in harmony with spiritual principles becomes the primary ritual. The magical images for Tiphareth include a magickal or divine child; a resplendent king, and a sacrificed God. These represent stages in the Mystery of Death and Rebirth. Tiphareth also corresponds with the Egyptian god, Osiris. Initiation on the path to God-Realization turns one's attitudes upside-down. Devotion to the Great Work; Pride.

3. Causal Plane: In the Causal, the Vision of Harmony indicates that all spiritual progress comes through the principle of Love. It implies the highest ethical standards in both behavior and thought. The Syntactic Mode means one has a precise cognitive awareness concerning the relative value of mystical experiences, and has the verbal creativity for expression. Thus psychology can express in words what mystics experience through intuition. Syntactic Mode includes Tantric sex, creativity, alpha states, etc. It verges of knowledge Ecstasy, but is mainly inspirational in quality.

4. Archetypal Plane: Tiphareth is the Royal Marriage of the Soul and the Lord. The projections of anima or animus have been returned to their proper level in the unconscious. The King and Queen are united: Spirit and Soul, distinct but conjoined. The aspirant enters a period of exploration of soul by spirit for psychic fecundation. This union with the Self, uniting all opposites is an illumined lunacy.



Tiphareth represents the halfway point on the continuum of spiritual development. It indicates the ability to withdraw the attention from outside to inside and hold it there. One contemplates the "radiant form" internally. Self-Realization opens the beginning of the path to God-Realization through Grace, along Path 13.

III. BRIAHI, the Causal Plane of Universal Mind

The transition from the Astral to Causal plane of awareness is as distinctive as that between Physical and Astral (or Imaginal). It is, however, a bit tricky to define since it contains "normal ego consciousness" as its point-of-departure.

Mystical and occult literature speaks frequently of astral experience in its various forms, but tends to jump dramatically from the beginnings of Causal experience to the final goal of unification. The Causal is known since ancient times as the realm of Universal Mind, Brahm, or that which binds our soul in spacetime.

The Causal Plane marks the boundary where true mystical meditation may be begun with profit for the aspirant. The path is no longer just a desire (Yesod), a concept (Hod), nor a passion (Netzach), but a Way. In a manner of speaking, our culture has geared us to keep our expectations of realizing full human potential quite low. Through meditation, we can optimize our potential.

The transition to the Causal Plane unites the temporal with the eternal, in as a steady rather than sporadic or emergent state. The Causal is the plane of great archetypal images or religious symbols. In the Causal, these tend to manifest to the aspirant in a very clear manner, rather than in muddled signs and misinterpreted forms of the Astral Plane. This is the first glimmering of contact with divine spiritual forces of a higher nature.

This contact comes through the mind, first in the form of creativity and later in a series of grace-states. We can experience a personalized knowledge and conversation with Gods and Archangels. Psychologically speaking, this means that we learn to discern the archetype at the core of situations or thought-patterns and meaningfully dialogue with it. Particular archetypes, or godforms, are clearly seen as animating experience. Causal-consciousness then means being able to determine their significance and interconnectedness and have a relationship with them.

The Briatic Plane, with its representative sphere, Tiphareth, symbolizes the central essence of manifest creation -- the Higher Self. This Self represents the fullest extension and potential of an individual, and provides transcendent experiences of the highest spiritual value which come from beyond one's own personal powers. To gain access to the Causal Plane means to transcend one's individual personality level and contact the inner, spiritual resources of the Self. Therefore, "self" acquires a double meaning for the aspirant which is both personal and transcendent.

How do we gain access to this increased potential and inner guiding principle? Just as experience on the Astral required technique and practice, conscious experience on the Causal Plane requires the building of a "Causal Body" through meditation. This Causal, or spirit-body is built of crystallized Light in the form of a "heavenly heart."

The building of the causal body requires that the mystic consciously attempt to find release from the triple-illusions of time, space and personality (or ego), through meditation -- or alternatively come to see that all existence is in fact the body of

God. Meditation takes the place of ritual or ceremony which gave access to the Astral Plane. There is no further need for the rituals of the astral or visionary mode to stabilize contact with the archetype of Self. Rather, the entire life is consecrated and devoted to mystical philosophy and practice. At this level, philosophy implies ethics and moral living, and practice means meditation. The mystic is he who is "in the world, but not of it."

The Causal Plane marks the transition from procedures which we use to reach toward and contact the divine to the reception of grace. Grace is that which pulls the soul toward Kether. That which pulls the attention is grace. Mystic meditation is fruitless without Grace.

In describing the soul of man, the Qabalists have divided the soul into three distinct aspects, corresponding with levels of access or awareness. The astral body or personality is known as the Nepesch or emotional soul. The causal body is called the Ruach, or higher mind. The Neschamah or Intuition through understanding, has the ability to pierce through the Abyss to the archetypal plane which is the origin of divinity.

Israel Regardie describes the faculties of the Causal Body in *The Garden of Pomegranates*:

Below the Abyss is the Ruach, or Intellect, that part of one's individual consciousness which becomes aware of things, desires them, and tries to attain them. It is a "machine" created, evolved, or invented by the Self for investigating the nature of the Universe. It is that portion of oneself consisting of sensation, perceptions, and thoughts, emotions, and desires.

The Ruach comprises the fourth, fifth, sixth, seven, and eighth Sephiroth, whose attributions are respectively Memory, Will, Imagination, Desire and Reason.

If this fantasy does not sound terribly altruistic, it is because this is the description of our old friend, the ego. The desires of the ego, must not only be sublimated toward spiritual goals, but must be abolished at the top end of the Causal Plane where it is annihilated through the crossing of the Abyss.

The Ruach is the false or empirical ego. It is that part of us which names itself "I", and it is just that principle which is not "I". Its moods change with the passing of the years. More, its contents are never the same from one minute to another. The destruction of the glamorous bondage which the Ruach exerts over us, thus permitting the light of the Neschamah and the higher principles to shine through to illumine our minds and our daily lives, is one of the all-important tasks of Mysticism. In fact, the abnegation of this false ego. . . is the essential accomplishment of all spiritual development (1).

The conscious ego performs its function as an integral part of the human soul when it awakens to its task of meditation. Then it may make contact with divine forces of sufficient purity to become a channel for the spirit. This channel is formed by the human mind's perception of an Archetype of divinity. These archetypes are most

commonly experienced at this level as the Self (psychology), the Holy Guardian Angel (Magick), or the Guru (mysticism). At this stage the aspirant does not become divinity, but actively begins to seek unity with it, through regular practice. By evolution to causal awareness, the aspirant does not lose access to the more ordinary levels of human experience. Rather, understanding of the relative values of these levels is enhanced by discrimination.

The aspirant learns to distinguish the level of access state by the nature of the experiences encountered when going "inside."

Briah is the "World of Creation" when considered in its relationship to the Plane of Atziluth, but its relationship to the plane immediately below is expressed by another name.

Since Yetzirah is the World of Emotion, Briah is the Intellectual World. This distinction is important, since Yetzirah the Astral Light, also has its images, which are extremely numerous in view of the fact that to Yetzirah belong most of the forms whose origin is on the material level. Most of the images in Yetzirah are activated by emotions arising from the material world, and frequently these are of so confused a character that, although we may ascribe them in a general way to one or another Sephirah, they cannot be completely drawn into the sphere of that Sephirah and so cannot rise higher. The images in Briah, however, are truly oriented and have become linked to the Archetypes which give them a new impulse. Thereafter, they are known and contemplated by the higher human faculties. (Denning and Phillips/Magical Philosophy) (2).

In Magick, causal plane images are quite distinctively defined. The Archetypes are represented in Briah by the "Magickal Images," which are generic representations of godforms. The images are so broad-based that they may be filled out by various gods or goddesses exemplifying the particular dynamic. When we meditate, we run across the whole panoply of images which are 'contained' in this inner landscape.

For example, the magickal image for Tiphareth is the triple form of God-Incarnate. Son of God is a composite archetype which includes three phases: 1) "Divine Child"; 2) "King of Heaven," or "Solar King," and 3) "Sacrificed God." These generic forms could be filled out by Krishna, Jesus Christ, Mithras, Osiris, or a contemporary Guru, etc.

The cult-form, or specific god or goddess is a special-case event patterned after the generic magickal image. They share the same quality. There are some variations, however. For example, Isis does not correspond in every respect with the Blessed Virgin Mary, though they are derived from the common theme of "Celestial Queen."

Magickal Images are the primary, or most fundamental, pictorial depictions of the qualities of the various Spheres of the Tree of Life. These images allow us to personify each sphere with a figure appropriate to our personal, cultural and psychological background.

Further rarefication into non-anthropomorphic depictions of the Spheres moves toward mathematical concepts such as sacred geometry and numerical equivalents. For example, Kether is known as #1, and is visualized as a brilliant point, while Tiphareth is #6 and represented by the six-sided cube.

Personification through the magickal images opens the possibility of internal dialogues with the forces of the causal plane. After all, you can't talk with the number 6, nor the color yellow. One alternative is to "become" those essences in imagination. Or, imagination obliges by offering an entity with a "human" appearance, but distinctive divine qualities.

For example, in Carl Jung's personal spiritual journey, he encountered an entity he named Philemon. He was Jung's inner spiritual guide and a personified form of the Wise Man of Tiphareth. Philemon embodied Jung's higher self on the causal level of experience. By contemplating Philemon and dialoguing with him in his imagination, Jung learned things he didn't know he knew, he actualized the qualities of this noble Being in his daily life. He did not become Philemon, but he became related to him consciously and began to integrate the potentials he expressed. Basically, our higher Self is a vision of ourselves in the future actualizing our spiritual potential.

The magickal images for the entire Tree of Life include the following:

1. Kether.....Dazzling brilliant Light
2. Chokmah.....Bearded Patriarch, or Wise Old Man
3. Binah.....Celestial Queen, Wise Grandmother
4. Chesed.....Enthroned Priestly King (Philosopher)
5. Geburah.....Armed Warrior-King (or Judge)
6. Tiphareth.....Divine or Magickal Child, Solar King, Sacrificed God
7. Netzach.....Naked, Beautiful Woman
8. Hod.....Hermaphrodite
9. Yesod.....Viril Youth
10. Malkuth.....Veiled Maiden

Qabalists associated distinct corresponding members of the spiritual hierarchy to the four planes. Each may be invoked through its Name to form an open channel of energy which descends down through the planes from above.

- 1). The Divine God Name corresponds with the Archetypal level of each sphere.
- 2). Corresponding Archangels are the entities called up on the Causal Plane.
- 3). Choirs of Angels are invoked on the Astral.
- 4). The physical planets correspond with the gross material level.

Each Sphere contains all four aspects of the spiritual hierarchy. These four aspects correspond in character for each Sphere and are channels of Divine energy, which may be tapped.

At the causal level, the seeker's mind is able to tap channels at will and transform both himself and his environment. He does this through a correct understanding of

the nature of existence and its relationship to man's mind. The human mind is a powerful creative tool when attention and visualization are applied under the direction of spiritual guidance. Mircea Eliade states that,

To the degree that you understand a religious fact (myth, ritual, symbol, divine figure, etc.) you change, you are modified -- and this change is equivalent to a step forward in the process of self-liberation.

This ability of the mind to influence reality at this level makes high ethical standards a mandatory requirement. The causal body is a moral soul. We can develop this strong ethical stand with good role models. Otherwise as seekers we never rise above personal ego-desires and this is the primary purpose for seeking access to causal plane awareness.

The change of plane from astral to causal is explained as symbolic Death and Rebirth. This means discipline of the mind, through withdrawal of the attention from sensory perception each day through meditation. Through this method, the mind is assigned its proper place in consciousness. Its direction passes from "control" by the ego to the higher spiritual awareness in man -- he embodies the power of the true Self.

Intellect can participate in Spirit, but is not identical with it. Mind must adhere to spiritual principles and disciplines despite personal pain-pleasure cycles. Consistency of effort helps develop integration of the personality with the higher Self.

The mystic creates this integrated subtle body by concentrating attention at the eye center. The energy normally is flowing outward into the senses or world. It must be withdrawn or made to 'flow backward'. This is the 'death' of the senses. Then comes the eternal moment of enlightenment when thoughts cease. This is the "death of the mind." The aspirant is "reborn" when his attention goes in and the radiant Light is perceived. He merges with this Light in enlightenment of the causal level. The causal body is formed by the fixation and crystallization of this living Light.

This symbol of the Self is an undivided point which is present in every man, but realized in spiritual persons. Surrounding the point with a circle symbolizing wholeness yields the glyph of the Sun, symbol of Tiphareth as representative of the causal plane. Tiphareth is the spiritual-gate to the causal plane, and the soul's method of transportation is the causal, or "Diamond-Body."

M. Esther Harding describes this causal, or heart-level development in *The I and the Not-I*:

This is the stage in the development of consciousness depicted in Tantric Yoga as the heart level, where for the first time a light is lighted in the heart, so that one is no longer dependent only on reflected light, but can at last see directly; that is, one sees through the projections to the reality of the other person and at the same time becomes aware, dimly and fleetingly, at first, of the god within,

whose guiding light makes it possible for one to see beyond one's own ego, to see the other as from the inside, that is, to see him/her as also a whole person.

Of course, this is a psychological interpretation of the heart-level, which is directed toward interpersonal relationships, rather than intrapsychic ones.

Many modes of personal development allow us to realize the meaning and potential represented by the Spheres of the Tree of Life with its Four Planes of Consciousness. Eliade put it succinctly in his journal, *No Souvenirs*.

If, due to one's desiring a woman (man), one begins to live more intensely, if one becomes a poet, or if one rises to a level inaccessible up to then, etc -- it is a matter of indifference to know that all this is due to physiological or psycho-mental processes. What is of interest is to be able to rise to a level never attained, to live as a mature and responsible man, to write poems, in a word, to participate in the life of the Spirit. The "causes" which have helped us to open ourselves to the Spirit are unimportant.

A. Tiphareth, Sphere of the Sun and the Son

Full Consciousness

*You are carrying me, full consciousness,
god that has desired all through the world.*

*Here, in this third sea,
I almost hear your voice; your voice, the wind,
freeing entirely all movements;
eternal colors and eternal lights,
sea colors and sea lights.*

*Your voice of white fire
in the universe of water, the ship, the sky,
marking out the roads with delight,
engraving for me with a blazing light my firm orbit:
a black body
with glowing diamond in its center.*

--Juan Ramon Jimenez

Tiphareth, as the Sphere of the Sun, means different experiences on differing levels of awareness. In summary, they might be seen as the following:

- 1). Tiphareth of the Physical Plane is "normal" ego consciousness;
- 2). Tiphareth of the Astral Plane is a vision of the radiant form of the Self;
- 3). Tiphareth of the Causal Plane means crystallization of the subtle Diamond Body, Self-Realization, Individuation, or creation of the Philosopher's Stone;

4). Tiphareth of the Archetypal Plane means nothing less than the incarnation of a Son of God, in the form of a spiritual Master.

The states of consciousness which Tiphareth corresponds with range from normal ego consciousness to the beginning of mystical practice in meditation (with its altered state of time transcendence). There are three distinct levels in the domain of the Syntactic Mode or "Creativity". Tiphareth is the lowest level of this mode of consciousness. It expresses more cognitive awareness; the mind apprehends directly, rather than having bodily reactions or imaginal lapses where the ego dissociates. The ego can now participate in the soul's relationship to the Divine.

Tiphareth means Divine Beauty, Equilibrium, Compassion and Creativity. Taken together, these qualities imply harmony or rhythm of proportions such as those expressed in the geometrical form of the Golden Mean, and the ethical dictum known as the Golden Rule. Both suggest balance and the application of proper force and form. These rules express a ratio of appropriateness.

Tiphareth is the qabalistic equivalent of the Self, or the divinity of the Macrocosm made manifest. Tiphareth is a divine microcosm, the mythical heaven of many religions. It represents the return of a sense of wholeness and holiness. Since it is the only Sphere which has direct access to all other Spheres of the Tree of Eternal Life, Tiphareth forms its heart, or sacred center.

Consciousness states "follow" one another in an ascending hierarchy of increasing integration. There is steady increase in control of one's environment through increased visualization ability. This power must be used with wisdom and restraint or it will become a major stumbling block to further progress.

There are two higher stages of the Syntactic Mode. If Tiphareth is characterized as Creativity, Daath is characterized as Psychedelia or Mystic Ecstasy, and Kether is the Unitive Stage.

One's encounters with the Divine or collective unconscious become more inspirational and uplifting and less frightening or awesome. There is still a great sense of awe; one just doesn't go into a trance state to experience it. There is, nevertheless, a profound metamorphosis of the soul. Tiphareth is the beginning of the mind's expansion from normal awareness to the Infinite. The degrees of this expansion, as the soul liberates itself from the mind, may be broken down into various procedures and grace states.

According to Gowan (1975), the Creative level of the Syntactic Mode includes five procedures:

- 1. Tantric Sex: level of intimacy**
- 2. Creativity: level of generation and Individuation**
- 3. Biofeedback: level of generating Alpha Waves at will**
- 4. Orthocognition: level of consciously willing potential to manifest, creative visualization, ego integrity**
- 5. Meditation: level of disciplined consistency and time transcendence.**

Each of these may be examined in turn to determine their role in the growth of spirituality or transformation of the individual.

1. **Tantric Sex** does not necessarily mean you must become a Buddhist monk. Tantra is used here as the spiritual bliss of losing oneself in the unity of love. The union of Shiva and Shakti is a metaphor expressing the most sacred aspect of marriage (as does that of Krishna and Radha). It is a mere hint of the ecstasies of higher mystical experiences. Sex is holy, in that while embracing, the lovers achieve a wholeness, a union of opposites, in which they share on the most primordial psychophysical levels. The ego is dissolved in the bliss of merging, prefiguring the union of the personal with the Divine. In this manner, sex functions as an aspect of development toward individuation, or realizing and embodying one's highest nature. Sexual activity, motivated by unselfish love is an ordinary act with the unsuspected benefit of contributing to the self-actualization of the marriage partners. Their act embodies the masculine and feminine polarities of the Universe embracing one another.

2. **Creativity.** Since there was obviously creativity in the Parataxic Mode of Art, what distinguishes this stage from that? Art is the level of intuitive apprehension of pictorial images. This level means verbal creativity, which is an intuitive form of the next level of Psychedelia (Daath). Creativity is verbal because the information coming from the preconscious is understood by the mind.

At this stage, we not only understand our own psychology pretty well, we can also verbalize about our condition. Having named our demons (mother complex, puer complex, negative senex, etc.) we win to a certain stage of conscious realization in the process of individuation. When such a degree of mental health is achieved through one method or another, creativity will inevitably emerge. Freed from the stress of an overemotional reactivism, a person flowers through various modes of self-expression. This indicates a fluid relationship between the individual's ego and preconscious.

Verbal creativity is marked by proficiency at analogy and metaphor. To be able to create these implies the ability to see through to underlying similarities in the dissimilar.

The beginnings of the creative process lie in introspection on information previously assimilated. This may take many forms, such as focusing on a problem and studying all angles of it, with various repercussions. After preparation and incubation, an illumination, or answer to the problem may suddenly occur. Its application will show if it is a true answer, or can be verified as useful. Creativity is part of the basis of philosophy in that it raises problems or questions, which it seeks to resolve through verbal creativity.

Gowan lists several theories concerning creativity, and the powers and virtues of verbal and mathematical creativity. He asserts that creativity has cognitive, rational and semantic aspects. Other aspects of creativity are personal or environmental, or

stem from a certain psychological openness. The inspiration for creativity comes from the ability of the ego to access the contents of the collective preconscious.

Activity directed in this manner leads to high well-being and self-actualization. Understanding increases along with creative organization. One gains in ability to combine the familiar in new and innovative ways. To be truly creative requires at least four traits according to Fromm: "capacity to be puzzled, ability to concentrate, capacity to accept conflict, and willingness to be reborn everyday."

Maslow extended creative traits to include "spontaneous, expressive, effortless, innocent, unfrightened by the unknown or ambiguous, able to accept tentativeness and uncertainty, able to tolerate bipolarity, able to integrate opposites." Whelan (1965) added, "energy, autonomy, confidence, openness, preference for complexity," etc. Creativity also brings a sense of destiny and personal worth. This brings a sense of joy, contentment and acceptance of self, which show its transformative ability. Creative people, who accept themselves, also have the further ability for compassion or brotherly love, (agape).

Gowan concludes that "creativity has a holistic quality, which restores the balance between right and left hemisphere function, between analog and digital computer aspects of thinking...Man's mind is a device for bringing infinite mind into manifestation in time; creativity is the commencement of this actualization."

3. Biofeedback (Alpha Wave Training) has become fairly common in recent years as a medical tool to teach patients to regulate blood pressure, for stress reduction, migraines, etc. Through perception of tones or lights the participant learns to enter a particular subjective state which is associated with the production of brain waves in the 8-13 hertz region. These brain waves are called Alpha Waves. A more relaxed state produces theta waves in 4-8 hertz frequencies.

This training appears to simulate the meditative state of yogis and Zen masters. Through the use of the biofeedback apparatus, the technique is more quickly learned, through application of concentration and will. What is required is a passive attention coupled with physical relaxation. Then one achieves a feeling of harmony between inner and outer worlds.

Biofeedback is linked to creativity, in that, through this technique one may gain access to a reverie state or waking dream where there is vivid perceptual imagery. Yet one retains enough awareness to bring back these images coming out of this reverie or Theta state. In dream research, this phase of consciousness is termed hypnogogic imagery. The ability to visualize is directly related to creativity. In this state one may go into a mode which is a sort of "internal scanning," finding creative solutions to problems or stimulating imagery.

Very advanced forms of biofeedback training are available now for the home computer. The effective range of these programs includes stress management, balancing the personality, changing habits and behavior patterns, auto-hypnosis, and self-transformation.

Application of programs to Qabalistic purposes has been called "Yogatronics" or "Electro-Magick" by Miller & Miller. This new generation of video games could include pre-programmed pathworking designed to help the aspirant internalize the symbolism presented in QBL, while developing the visualization ability. We have all the potential of experiencing certain types of 'astral journeys' using the medium of "the temple of living light." The monitor has the capacity to hold the visualization until the aspirant can learn to internalize the symbols and visualize them at will. In this case, hardware may be dispensed with. The interface is merely a teaching tool.

In this way, classical mind-control techniques can be used to fine-tune oneself, in the same sense as self-hypnosis. This is the basis of effectiveness of biofeedback and other elementary forms of meditation. It allows access to states of awareness without the interference and side-effects of drugs, or the years of intensive practice in yoga.

Meditation, in its elementary form, is described as an altered state of awareness that is induced by repetitive action of some constant stimulation. This stimulation may be of three types: 1) external, such as a chant or drum beat or visual display; 2) internal, such as mental repetition of a word or group of words; or, 3) physical, such as an electronic stimulus, etc.

Even without religious intent, an individual, under the influence of this constant stimulation, is able to achieve varying degrees of relaxation and learn a degree of control over autonomic nervous system functions. This enhances the quality of life and widens the spectrum of human experiences available on the psychological level. We can create the conditions necessary for personal creativity by providing a daily "incubation" period. We appear to also gain a better understanding of ourselves. Many feel they experience an expansion of consciousness and gain access to higher levels of awareness. This equilibrium produces the experience of oneness with the universe, or contact with the divine.

There are many styles of meditation from different philosophical schools, but they all share certain elements in common. The active techniques employ concentration prior to contemplation, and are quite similar to self-hypnosis in the induction phase. Most are designed primarily to create a light alpha brain-wave state, with deeper meditation stages producing Theta patterns (ideal conditions for rejuvenation).

Our Videographics program of meditation begins with the eyes open. At this stage, meditation is effective with the eyes either opened or closed. The goal of the Videographics program is to teach us the matrix pattern of optimal equilibrium, so it may be internalized eventually. Once the pattern is learned, the states recognizable, it is possible to visualize anywhere at any time.

When an individual concentrates on an external object, it is called contemplative meditation. In Eastern systems of Yoga, the object of concentration is known as a Yantra. If the object is a circular design radiating from a center, it is called a mandala. Variations on the theme used throughout the world include the crucifix, the Star of David, flowers, candle flames, etc. Eventually, the symbol is mentally

fixed on a spot inside the center of the forehead, known as the "third eye" (i.e. the pineal gland).

Simultaneously with the visualization, one mentally repeats a word or phrase used in a repetitive manner to induce a meditative state. This word is known as a mantra. The "meaning" of this word has been scientifically "proven" to be arbitrary, but some feel it is best to use a mantra which is a symbol of one's chosen deity. In the qabalistic tradition, mantra meditation was practiced using permutations of the Hebrew letters of the Name of God. This relates the mystical meaning of the mantra to the individual and contains more power to influence the soul.

Mantra meditation is similar to self-hypnotic suggestion, since it provides an internally-originating method of repetitive stimulation to the central nervous system. It encourages the development of a hypnotic trance, where one is more suggestible. It is at this point you can re-program yourself out of undesirable habit patterns. Some techniques suggest it is necessary to repeat the mantra only upon exhalation of the breath, to induce the relaxation response.

Expected results of this technique include a deep state of physical and mental relaxation. Faster reaction times, greater self-sufficiency, stability and happiness have also been shown as results of regular meditation practice. There are no inherent dangers for the "normal" individual. However, for a highly neurotic person unstressing might release pent up emotional problems, precipitating psychosomatic symptoms or inappropriate behavior. Marathon meditation periods are discouraged as they can lead to a loss of the sense of reality. Furthermore, the mind will later rebel and be even harder to calm. On the plus side, meditation reduces anxiety and negative self-image which can reduce psychosomatic disorders. It is a natural high.

4. Orthocognition. Gowan has termed the next stage of expansion of ability orthocognition, which he defines as an understanding of the illusions of time, space, and personality and their relationship to the divine element. It represents "the first dawning of complete cognitive understanding" of the processes of the psyche. For this to happen, the mind needs "a map of the psychic terrain, and an awareness that such relationships exist."

The effectiveness of Qabalistic theory in this regard is clear. QBL is not only a correct map of the psychic terrain, it prevents us from confusing the levels of experience and getting lost in fruitless tangents. Pathworking prevents us from getting lost in endless mazes of psychological confusion concerning the relative value of different experiences. We stay on the right track or path of the Tree by correctly visualizing our relationship to it. QBL is a variation on the theme of the Perennial Philosophy, which recognizes all-powerful, impersonal forces which exist independent of time, space and human will, and are beneficent and concerned with human welfare and spiritual development.

Orthocognition is a low stage of syntactic mode conceptualization and still contains an element of selfish personal desire. Therefore, we should be extremely careful to

limit visualization to those embodying the highest standards. The power to visualize means we have the ability to manifest our ideal self-concept, and this is the main purpose of orthocognition when it is used in conjunction with meditation. We should seek to actualize the Lord's Will, not our person will. Remember, the personal ego is an illusion to begin with, and personal desires just compound the distortion of reality. If this realization does not come, one is hung up at this stage for an indefinite period of time.

Thoughts are things, or may become manifest, and the human mind is a powerful tool for shaping reality on several levels. Since every intentional act is a magical act, we must learn to use emergent powers wisely and with restraint, or we bleed off motivational energy to experience higher states of awareness. Visualization releases or taps the flow of psychic energy, transforming potential into being. Several philosophies hold that our imagination and perception is responsible for the maintenance of the universe; our presence is a necessary part of its realization.

According to Gowan, "orthocognition is a form of mental dimensional orientation" which "is related to the structure of intellect factor of spatial visualization. The ability to orient oneself in three dimensional space can be developed into the ability to orient oneself outside space and time, and hence to possess the means for transcending the illusion they present." (see 'The Diamond Body and Circulation of the Light,' this Volume).

The orthocognitive person would have an effective working knowledge of physics, physiology, psychology and metaphysics. This philosophical basis provides a cognitive capacity which keeps pace with affective experience. In other words, one understands the meaning of various states of consciousness or mystical experience, as well as apprehending them intuitively. This is why psychology can describe states of consciousness in words. Below the grace states of ecstasy and unification, they may be very precisely defined by those with verbal creativity..

Healing, whether mental or physical (actually psychophysical) is a special case of orthocognition. Gowan describes three kinds of healers:

1. Those who lay on hands work in prototaxic mode or 'trance.'
2. Those who form images in the right hemisphere, or visualizers, work parataxically.
3. Syntactic healers operate through the word. Though separated by degrees of ability and swiftness of cure, these include masters like Jesus, or modern day psychologists with their talking and experiential therapies.

He concludes that, "the essence of psychic healing is a speed-up in time of what would normally be accomplished in a much longer period. What we are really witnessing, therefore, is the acceleration of chemical reactions. If ultimate reality exists outside of time, and if orthocognition is the dawning recognition of this fact, the consequent psychic healing, as an accelerated physical process would follow immediately upon this principle." (TAC, pg. 332).

Elsewhere (Psychoenergetic Systems, Krippner, 1979), Gowan draws parallels between creativity, healing, and illumination (or peak experiences). All three procedures share common traits. These include a prelude ritual which includes a withdrawal to internal solitude, an altered state of consciousness during the peak of the experience, and an emotional "afterglow" after the experience.

These three states apply to all the procedures of Tiphareth. Briefly these are characterized as follows:

1. Prelude Ritual. "This consists of a number of steps, some of which may be left out or practiced unconsciously in any given case. First, there is a trigger (a physical problem in the case of healing, an unsolved issue in the case of creativity). The protagonist seeks solitude undisturbed; one concentrates on one's thought with a fixed purpose, calling or invoking some transpersonal power or must with full expectation of results. The peak-experience illumination differs only in that the entire process is largely unconscious."

2. Altered State. "It is far from trance even in the "wild" (or spontaneous) peak-experience. It is, in the other two modes, far more within conscious control, but it is still not your ordinary state of consciousness, for one is in some measure conscious of the Absolute -- outside time and space. Once the prototype of the solution is sensed there, it is experienced as vibrations, which grow into mental images, ideas instantaneously flow ("rhea-ceptivity"), they are clothed in a form which must be committed to paper at once lest they vanish, and finally, suddenly, the altered state ends. In healing, having been visualized by the healer, the perfect conditions is manifested in the patient: in creativity the new products has been "realized" in verbal or artistic form; in illumination the experience is ineffable and hence is felt only as overload on the emotions."

3. Postlude. "The postlude experience is one of beneficent emotions, joy, reassurance, exaltation, oneness, and goodness. ...one or more of the steps may be unconscious or omitted altogether in any given circumstance. Some of these events are more intense than others, and the spontaneous ones tend to be more ecstatic than those "on demand," but these statements are equally true of sexual intercourse, for experience breeds equanimity."

5. Mystical Meditation. This is the final procedure of Syntactic Mode. Paradoxically, this is a fully cognitive exercise, but it stills the mind, preparing it for the influx of grace states (Daath). meditation with a religious or spiritual goal marks the upper limit of mankind's mental efforts. From this point on, further progress depends on the downflowing of the Grace of Divine higher power. One can make the conscious effort to establish this condition, but its manifestation requires the activation of processes beyond conscious control.

The mind must be tranquilized, stilled or made silent. In other words, this type of meditation is an attempt by the aspirant to transcend the limitations of even the highest possibilities of the mind. By consciously cooperating, the mind seeks to transcend itself, but it cannot do this without aid from that which is Beyond itself.

The "I-Not I" split expresses the essential duality of man in his alienation from his Divine Origin. The entire process of transformation along the Middle Pillar of the Tree of Life is an attempt to heal this split through the medium of an I-Self dialogue. This interchange is brought into increasing conscious awareness as one ascends the spheres, path and planes of the Tree. This duality enabled man to experience the birth of consciousness, but on the Way of Return, the mind must be stilled to quietness for the primordial reunion to occur. The mind must merge back into its source, Universal Mind, in order to free the soul for greater glories.

In QBL, the I-Self duality, with its resulting fragmentation of qualities into spheres, is resolved by consistent ascent up the Middle Pillar. As One unites or harmonizes the various opposite spheres on the Tree, awareness gains access to higher levels. A similar process occurs in alchemy, where the opposites must be united to produce the supreme symbol, the Philosopher's Stone. The process required is a dialogue between the conscious-I and the unconscious-Self. This is known in psychology as the process of self-analysis. It has its own analogy in yogic training.

In the modes of "trance" and "art," man has an I-It relationship with the subconscious. Upon entering the mental dimension, however, the subconscious is spontaneously perceived in a personified form, making possible the I-Self dialogue, on a conscious level. In Magick, this phase is the Knowledge and Conversation with one's Holy Guardian Angel. In contact with this inner radiant form of the Self, one may put direct questions to it and receive direct answers, guiding life and the growth process. The Self of the I-Thou relationship is perceived as Divine Guidance.

The Self is another name for the Absolute, which is seen at Tiphareth, though one cannot merge with it until Kether. Instead, the absolute is seen reflected in the manifestations of the physical world. The goal of the dialogue is to infuse the personal self with the infinite depth of the greater Self. This produces feelings of bliss and expansion in understanding and wisdom. According to most philosophical systems, the original purpose of the "I" or ego-consciousness is to *know* the universe. Ultimately, the knower merges with the known in the realm of the Self. The Self is the ordering and unifying principle which guides the process of spiritual development. The dialogue cannot begin until the conscious I perceives the Self as a separate center, or essence of manifest reality.

Initiation of the I-Self dialogue manifests a connection between the two which is analogous to Middle Pillar. This connection is known in psychology as the "I-Self axis," as termed by Edward Edinger in his book on the subject, *Ego and Archetype*.

There is another type of union with the Self, which is more pertinent to meditation than psychology. This is the method of "transcendence," where a clear distinction between ego and self is not required. Instead, the boundaries of the personality are gradually expanded, merging with the infinite boundaries, formed by the Self perceived as an infinite circumference.

These two different modes of experiencing Self, dialogue and transcendence, function through different physiological systems. Dialogue includes psychology and

magick and involves the enflamment or arousal system. Transcendence comes through diffusion and stilling of the body. Enflamment works through noradrenaline production, while transcendence is associated with the neurotransmitter, serotonin.

Either technique can lead to the fulfillment of Tiphareth, which is Self-Realization or Individuation. This phase marks the culmination of the process of self-analysis, and returns the soul to its pristine state of self-luminosity. This is the *feeling* of oneness with God, but this is only an illusion for it is merely the halfway house on the road to spiritual fulfillment, half way up the mountain. But, in and of itself, it is a great spiritual accomplishment, and can mark the beginning of the second half of the journey to God-Realization or knowledge of God. Both spirit and God share a common essence.

Perfected consciousness means no less than the synthesis of I and Self which results in bliss. Without this union, the soul remains in an ever-restless condition, feeling the pain of its separation. What is required at this stage is for mind to realize itself as pure, undifferentiated Essence. When no thoughts arise and the mind is fixed on pure Essence, there can be no lingering notion of an individual ego. Ego does not even experience itself having the realization, nor does it perceive the phenomena occurring. One simply *is*...not becoming, but Being.

Psychological realization comes with the repetition of the psychic life cycle. When one is freed from the compulsive repetition, a sense of wholeness is achieved. This sense of wholeness is symbolized by Tiphareth, however, Perfection is known as Kether.

Edinger defines three phases in I-Self relations. In the first, the I becomes inflated (ego trip) due to identification with the powers and potencies of Self. By amassing personal power and asserting its independence, the ego falls out of harmony with the subconscious. This stage is alienation. Alienation brings the ego pain and remorse, coupled with a sacrificial attitude ("I'll never do THAT again.") It seeks reconnection to the previous harmonious condition, a reconciliation or reacceptance. Repeating the cycle brings increased awareness until the process is conscious, and becomes obsolete, since the I merges with Self in meditation daily.

Methods of transcendence include relaxing the body and withdrawing attention from the senses. One must sit in a position where it is easy to relax but hard to fall asleep. undisturbed, with eyes closed, one may begin the process of relaxing the mind and removing the constant babble of distracting thoughts. The mind constantly repeats scenes and stories of its attachment to the outer world.

To overcome this tendency, a mantra, or repetition of the divine names is used to control the mind. A sound or tone may also be employed for this purpose, of eliminating distracting thoughts. To fix the attention one uses contemplation. The form of contemplation is usually a symbol of the Self (one's Guru, mandala, Holy Guardian Angel, or Wise Old Man or Woman). These are imaging techniques which hold the mind on the proper thought. All these forms ultimately merge into mystical

perception of inner Light, and then this Light is contemplated effortlessly because it automatically holds the attention. Sounds may also be heard at this time with the inner healing. This sound and the light are of the same essence, they are one in the same as your attention.

This process unfolds over time, and meditation, as other magickal procedures, must be carried out without "lust for results" or expectations. You must walk before you can run. In the lower level of meditation, one must battle the distractions, but in the higher level meditation is sheer bliss for the inner pull drives the process. The bliss which one accesses through the bridge of meditation can become as habitual or addictive as self-destructive behaviors. Meditation allows an individual direct access to his higher nature with all of its concomitant benefits. This process of unfoldment continues at even higher levels of consciousness.. (i.e. Daath and Kether).

Some techniques of meditation include Transcendental meditation, Zen, Vedanta, Integral Yoga, Tibetan Buddhism, Surat Shabd Yoga, union of the soul with the sound current. Each has a slightly different motivation, and some have different goals, in that the goals of some yogas are higher than those of others. Some seek to unite with Universal Mind, while others transcend it. Stilling the mind is a rewarding experience since it brings feelings of tranquility. But, it is merely preparation for something greater to come. One may continually clean a chalice, but it will get dirty again if it isn't filled with the life-giving water. Tiphareth is the stage of purification or rebirth.

Gowan points out that "unlike creativity which seeks a social response to solve a problem, and orthocognition, which seeks some personal relief or benefit, meditation seeks no product beyond itself. It therefore is the only procedure to gain independence from the ego." It is, however, as far as man can go through his own efforts. Meditation is man's invitation to God -- a silent plea for Grace.

Gowan feels that the Syntactic Mode has great relevance for personal and cultural growth. "The whole stage with its five procedures is therefore of intense interest to the intelligent, educated adult. It forms an indispensable bridge to growth and self-actualization for our culture, and constitutes the only method of making ready for, or, understanding the phenomena of the psychedelic stage." (Daath).

Gowan concludes that, "It is the business of the ego to attend to ordinary reality; it is the business of other parts of the psyche to relate to non-ordinary reality, that is, the noumenon outside our space and time. While we may look at our ordinary reality as "real," it is actually the other way around, for it is non-ordinary reality that is the ultimate real."

[table: properties of syntactic procedures and graces]

1. PHILOSOPHY

A. INITIATION: Minor Adept

Adeptus Minor corresponds to Tiphareth. This ceremony is the death and resurrection rite of the Sun. It is generally held that Tiphareth is the highest attainment in earthly life; it is certainly the highest recognized Grade, since whatever further progress an Adept may make is by his private work. Furthermore, the Grades 6=5 and 7=4 represent such a degree of spiritual attainment, and the sense of responsibility pertaining thereto is so great, that such Exalted Ones have no wish to be known and proclaimed.

--Denning & Phillips/*The Magickal Philosophy*, Vol. III

Integration, the final attribute of escalation, synthesizes the others. It is in some respects the mathematical integral of the previous aspects. A mathematical integral of an algebraic function is a related function of the next higher degree with the addition of a constant which must be determined by observation, thus giving two sources of extra freedom and one of greater complexity. It is not surprising that a higher synthesis, greater complexity and new degrees of freedom are characteristic properties of the concept of integration. ...The tasks of a stage are not simple accretions of the previous stages, but are interconnected to form a meaningful unit...which unites into a gestalt. ...Integration also embraces a higher synthesis of already delineated elements; hence it summates the concept of escalation. ...This top efficiency at any stage of development is reached only through a harmonious psychic-biologic relationship resulting from excellent mental health on the part of the individual which enables him to integrate his total potential, or as we say in current slang, to "put it all together."

--John Curtis Gowan/*Development of the Psychedelic Individual*

The grade of Minor Adept might be considered analogous to completion of an under-graduate program in a four-year college, and entrance into a graduate program. When one enters the Ph.D. program of spirituality, the one has still only an awakened realization of potential godhood. When one first attains the Tiphareth initiation, one exemplifies the archetype of the Divine Child, who must learn to walk before he can run. The vital ingredient is a conscious realization of one's distress, which activates the archetype of unity, providing an increasing sense of centeredness.

Having undergone the previous phases of personality development and integration, the adept has gained self-knowledge which has extended the boundaries of the ego-personality. He must now implement his new attitudes in practice as a synthesis of his training. In this manner, one is able to embody the solar glory of the archetype of the Resplendent King, the self-actualized, or individuated person. By transforming oneself into a purified personality, one is redeemed from the dictates of the senses and the lower mind.

The individual whose personality is so purified and redeemed has become an altogether different creature than homo sapiens. These individuals foreshadow mankind's next evolutionary change, and might be termed homo mysticus, or

mystical man (Neumann). Alternatively, they might be termed homo novus, or new man (Richards and Richards), or homo lumen (Philo Stone). The term, homo lumen would indicate those individuals actively engaged in the crystallization of the "body of light," on the Causal Plane.

The "homo lumen" represents a consciousness which actualizes the divine nature of the Macrocosm in the Microcosm. This does not mean that the ego will no longer confront problems which challenge one's moral courage. In fact, the battle with the downward pull of the mind is enjoined on an even more intense level.

Rationalizations and conflicts will arise to deter one's progress in defiance of one's heart-felt will. Only consistency of effort will overcome this extraordinary difficulty.

This phase frequently involves actual strengthening of the will-power or ego which has a weak sense of responsibility. This is why the individuation process up to Tiphareth is characterized as being "heroic" in nature. We all need some ego strength to survive in the world, and without it we would be overpowered by the awesome strength of the unconscious Self at this stage. What is required is an integration of consciousness and Self. By making the conflict conscious, the ego assumes a heavy responsibility. This problem is impossible to solve without divine guidance.

There are certain indicators of progress at this stage, as delineated by John Gowan (1974) in his Northridge Developmental Scale. He determined a series of mini-tasks which are considered "requirements" or results of self-actualization, using criteria other than intelligence testing. Some of these include creativity, self-reliance, self-acceptance, problem-solving ability, a sense of destiny, and a strong inward tendency toward meditation. (For a more complete description of these stages, see "Psychological Models," this volume, on developmental theory, or Syntactic Mode). An individual at this stage understands the phenomena of projection, and realizes that heavens and hells originate within himself.

Mystical meditation is a fundamental category of human experience. Mystical types of experience can manifest whenever the ego defers to the unconscious, giving up its illusion of occupying the center of human awareness. There are stages of mystical-type experiences, depending on one's conscious awareness.

The mystical experience of the most primitive sort (prototaxic) is called participation mystique. Here the ego identifies itself unconsciously with the divine. This produces a feeling of paradisiacal wholeness. Further development of a heroic ego leads to greater clarity of the relationship of the ego to the Self. Formerly unconscious aspects of the non-ego are raised to conceptual understanding. The worldview is transformed.

The dynamism of this process comes from the Self, not the ego. The creative Self is a mystical force which lives within us all, but to realize it requires a personal encounter. At the Tiphareth stage this personal encounter occurs in meditation. This means mystical meditation (not elementary meditation), which seeks God-realization as its goal.

Prior to consistent mystical meditation, the dynamic aspect of the creative Self may manifest with the hint of a religious aura in ideas, inspirations, or even with the power of revelations. These ideas and inspirations may contain great spiritual truths, but since they originate in the mind, they may also be contaminated, or inclined to lead one astray through misinterpretation. In spiritual practice, all images or directions experienced during meditation must be tested or dismissed. Only that which ultimately remains is Truth. All others are mere products of the mind, and can capture the attention if allowed to do so.

Mystical meditation is a method of producing metamorphosis in both the ego and the Self. When the ego is attentive and devoted to the Self, the mystical encounter may occur. This yields a lasting transformation of the personality. The mystic seeks to be freed from the imprisonment of a rigid ego, and isolation in time and space. Depending upon one's level of awareness, there are early, high, and ultimate levels of mystical experience. They reflect stages of human development.

According to Erich Neumann ("Mystical Man", Eranos Yearbook, Princeton Univ. Press, p. 375-415):

The final and mature phase of human and personal development, which reaches beyond the zenith of the dominant ego-consciousness, is characterized by metamorphosis and integration of the personality, such as we see in the process of individuation. This too, is prefigured in myth, in the archetypal figure of Osiris. As the sun rises and falls in its path across the sky, so does consciousness develop in every individual as the ages of life unfold, and individuation is the end of its diurnal arc. The metamorphosis of the Horus = sun = ego of this phase, stands under the sign of Osiris, the "First of the Westerly gods." At the end and death of the sun's course, Osiris, the self, receives and Osirifies the ego = Horus = son and transforms him into the self. The mythology and king ritual of the Egyptians contain many accounts of the paradoxical relation between ego and self, Horus and Osiris. The mystery of mysteries: "I and the Father are one," also presides over this final phase of the transformation that is called individuation and which culminates in the death of the ego and the end of life.

The mystery of Death and Rebirth is the stage of Tiphareth. It may intimate not only the transmigration of the soul through several personalities, but also be a mystical prescription to "Die Daily" in mystical meditation, as the ego merges with the greater whole. One must have certain qualities of a minor adept in order to do this. One needs some degree of ego integration, or one's mystical practice is a timid fleeing from the world. This is a regression of the ego, no progression towards consummation in spiritual marriage. The myth of the hero culminates in a divinely strengthened ego, which manifests some qualities of the divine.

The hero has a calling or mission, or a sense of his or her own destiny, as does the minor adept. He forms and transforms his/her own worldview, constantly widening the parameters of experience. The hero is the rising son-sun or divine child. When

the son/sun reaches the zenith point, there is a stabilization of consciousness or self-actualization.

Then begins the path of ecstatic, or high mysticism, where the sacrifice of the ego or individuality is enacted in the archetype of the sacrificed god. The ego willingly participates in its own destruction through transcendence. It acknowledges the Self as the directing center. Creativity is entirely directed inwardly and upwardly. The direction is inward in terms of attention, and upwards in terms of planes of awareness as described in Qabala.

A high mystic is not concerned with transforming the world, per se, but this is a natural by product of his teachings. Both high magick or high mysticism are roads for the redemption of the soul, and the realization of the macrocosm in the microcosm of human life. Great individuals act as role models for humility and the spiritual development of mankind. The personal and spiritual integrity which they embody links them with the westernmost portion of the solar journey. Their personal integrity, first hand knowledge of the borderline of death, and their after-death mysticism links them with the archetype of Osiris, the dying and resurrecting god.

In these illumined individuals, the reality of the self shines through transparently. Even though we have a role model for wholeness, each individual soul needs to confront the task of redeeming his soul. This requires personal effort, and this is the work of the minor adept in mystical meditation. magickal transformation of the personality into living light is a continuous creative process, and is the main work of this phase. The integrated person is attached to his or her own creative center, and that core is represented as Tiphareth, the center of the mandala, or the heavenly heart.

The minor adept seeks to consolidate discontinuous encounters with the self into a mystical transporence which "resembles and all-embracing radiation of the self, and the ego encounters the numinous everywhere and at all times." He engages in mystical meditation which includes a dialogue between the ego and Self, in some form of spiritual practice on a regular basis. This dialogue provides guidance for the ego, which then transforms itself into an embodiment of the self.

Again from Neumann (p. 415):

Thus from its earliest beginnings the human personality is in constant mystical motion. Reaching inwardly toward the self and outwardly toward the world in ever-new encounters, forever changing, man from childhood onward passes through all the stages of transformation mysticism. And just as the beginning of source mysticism extends back into an unknown sphere prior to the emergence of the ego, so does the end of immortality mysticism extend into an unknown realm beyond the extinction of the ego. The inexplicable fact that man's very center is an unknown creative force which lives within him and molds him in ever-new forms and transformations, this mystery which accompanies him

throughout his life, follows him even into death and beyond. So the circle closes, and man ends as he began, a homo mysticus.

PSYCHOGENESIS

21st Century Alchemy

**A Journey through Inner Realms of Wonder and
Imagination
via Modern Iconography and Recycled Imagery**

by Iona Miller, c1994-2000



Under Construction : Some Links may still be inactive for a few more days...

PSYCHOGENESIS: QABALISTIC ART

**Preface
Introduction
The Nature of Art
The Creative Process
Table of Contents
Psychogenesis I: Alchemical Reality**

Psychogenesis II: Chaosophy 2000
Psychogenesis III: Mythopoesis part 1
Psychogenesis IV: Mythopoesis part 2
*****SLIDE GALLERY (Coming soon!)**

"The psyche consists primarily of images, and the primary activity of the psyche is imagining."

James Hillman

"Somewhere there was once a Flower, a Stone, a Crystal, a Queen, a King, a Palace, a Lover and his Beloved, and this was long ago, on an Island somewhere in the Ocean 5000 years ago. Such is Love, the Mystic Flower of the Soul. This is the Center, the Self."

C.G. Jung

PREFACE

Welcome to my world--a world ensouled and enlivened by imagery. A world of the seemingly familiar, yet peculiarly mysterious.

In our modern culture every image, mundane or divine, has been used and abused. In the Postmodern Era there is no new iconography. In imagery and art, there is nothing new under the Sun. Everything which can be used from religion, myth and symbolism has been used and can only be recycled -- recycled like these collaged images from the trash-heap of society. The materials for these images was literally someone's garbage. My task was therefore, as usual, trying to turn "lead into gold."

Here, in this animated world, images are lovingly juxtaposed with their complements and opposites. Some images just want to "live together." The familiar is combined with the mysterious, reflecting a unique surrealistic vision. Reflectaphors, or reflective metaphors, repeat themselves in each image or poster, as well as jump from image to image--i.e. they echo themes among the various pieces as the series unfolds itself in self-similar fashion, like the iterations of fractals.

So, Anima Mundi bids you welcome and acts as our tour-guide or hostess. She coaxes you deeper into the labyrinth of desire and fulfillment, where each of you can find your own resonance, the imagery which speaks the loudest or clearest, or beguiles with the mere whisper.

To experience psychic reality means to be in soul, in the realm of the imagination, as if interacting with its inhabitants and locales. Inner visionary experience, be it wrathful or beatific, is an expression of soul. Through images the unconscious

affects our worldview, health and relationships. Soul is the middle world between gross materiality and the spiritual world.

Matter, spirit, and ego fight over the soul. Yet soul is a primary experience, virtually our only way of being. Each wants its unique fantasy to reign uppermost. So, the first task is to distinguish soul from spirit, so the body may unite with and be enlivened by both.

This is a psychological approach to art and life--giving voice to soul, living life as art. It means the return of a subjective feminine eye on reality. It means the enlivening of our bodies and the world of nature with imagination. When we see soul as the background of all phenomena, we becoming aware of the animating principle and develop a relationship with Her.

All images arise either from body processes (instinct) or psychic forms (spirit). Whether instinct-controlled or spirit-controlled, they are related to physiological processes. They appear psychologically as images, but work physiologically. They produce emotional or visceral aspects, but not in any causal way. The images don't produce reactions. The image is the entire psychophysical gestalt.

The soul generates images unceasingly. The soul lives on images and metaphor, especially epistemological metaphors--how we know what we know. These images form the basis of our consciousness. All we can know comes through images, through our multi-sensory perceptions. So, this soul always stays close to the body, close to corporeality, to what "matters."

Let the images come into your body. Embrace the image.

INTRODUCTION

The ancient art of alchemy was the search for the God-head in matter. The alchemical task was to unify spirit and soul in the body. Psychic reality means to be in soul, *esse in anima*, as Jung put it. It means an enlarged experience of concrete reality, a dialogue with events, situations and circumstances.

Psychic reality means to be in soul, through embodiment (soma) or enlivenment (psyche)--perceiving images viscerally and mentally. Acknowledgement of this force does not constitute Goddess worship--only recognition of the archetypal nature of reality, and the archetypal reality of nature, and our own nature. She is a way of reclaiming the divinity of body, matter, and world. This notion is part of the cultural return of the Feminine. Jungian analyst, James Hillman invites us into this world:

Let us imagine the anima mundi neither above the world encircling it as a divine and remote emanation of spirit, a world of powers, archetypes, and principles transcendent to things, nor within the material world as its unifying panpsychic life-principle. Rather let us imagine the anima mundi as that

particular soul-spark, the seminal image, which offers itself through each thing in its visible form. Then anima mundi indicates the animated possibilities presented by each event as it is, its sensuous presentation as face bespeaking its interior image--in short, its availability to imagination, its presence as a psychic reality. Not only animals and plants ensouled as in the Romantic vision, but soul is given with each thing; God-given things of nature and man-made things of the street.

This resurrection of the soul of the world means a raising of consciousness of created things, the world's psychic reality. Physical reality becomes psychic, and psyche becomes real--it "matters." The difference between soul and external things no longer matters. Inner and outer world are both real and in fact One World.

Image, metaphor and symbol bridge the abyss between matter and spirit. Images are the subtle net that unites symbols. They are integrated with feeling, mind and imagination. We can see soul in all natural objects. We can notice our fantasies constantly conditioning our experience of reality. Knowledge of spirit doesn't come from ideas, even revelations, but through a reflective process.

I began this series of collages shortly after the death of both of my parents three days apart from one another. I am not a trained artist, but a clinical hypnotherapist with a strong Jungian background in symbolism. Realizing I could use this for processing my own pain and grief, I began them as Art Therapy. I had originally made a few as examples for my students in a college class I taught, "*An Introduction to Depth Psychology*."

I found in my therapy practice a tendency for clients to present certain recurrent motifs, such as black holes, "blacker than black," tunnels, images of chaotic breakdown, etc. Prior, I had been writing a book called *Dreamhealing* with shaman/therapist Graywolf Fred Swinney. It was about Aesklepian dream healing, a technique developed around the metaphors of the then-new science of Chaos Theory which is now known as Complexity. In this deepening process, the client becomes each element the imagination presents in turn. Immersed in this imagery, I sought to create some visual images which might intimate this process.

So, my posters are *gestalts*--where all elements are co-temporaneous, existing in time holographically--presented together even though they image a dynamic process. Each of them constitutes a shamanic dream journey--a full immersion in the inner world.

None of them are contrived beforehand--all were emergent experiences of just letting the image work themselves. No theme was determined in advance. The posters themselves dictate some of what must happen on them. In order for them to appear seamless, I had to hide or disguise the seams in various fashions. Yes, sometimes "less is more," but most often more was needed to insure a seamless quality. This was not a project where minimalism even *could* prevail.

Part of the burden and joy of working in this medium is using what one has, or can find, what is spontaneously available. Jungian psychology uses the notion of the *bricoleur*, the craftsman who works with that which is at hand. This includes the psychological situation as well as the materials. My grief work accentuated the death-rebirth motif which is ubiquitous in therapy in any case.

In their formative stages, the elements were not fixed on the canvas, and sometimes due to electrostatics, heat, and gravity "things moved of their own accord." Almost invariably, this was an improvement over any intuitive or deliberate placement I might have made. So, it was a process of flowing with the animating process, rather than dictating the process.

Later, they organized themselves into larger groups. There were obvious thematic connections for some of them, but others were not so obvious until there were hundreds of them. Their order has no relationship to the time of assembly. I have never re-sorted them, but for some reason the over-all story of the text for each leads seamlessly into the next, providing a narrative stream. The text for each piece suggested itself long after completion through a recognition process, or sometimes immediately by synchronicity. They assembled themselves and with one another by a process I can only describe as "synarchy."

The awesome pandaemonium of imagery flowed forth spontaneously and my ego could not fight its way free. Rather, I had to surrender to the forces that often crossed my subjective will. I was a slave to the process for some time, producing several pieces a week for long periods of time, and sometimes even doing more than one per day. The mystery images are a compelling source of transformation and healing, and it worked! The physician healed herself, or rather opened to the inner healer and let time take care of the rest.

[The poster originals are 24 x 36, and are assembled completely by hand. No computer enhancement has been used on any of them. All were done between 1994 and 1999.]

THE NATURE OF ART

What a picture means to the viewer is strongly dependent on past experience and knowledge. In this respect the visual image is not only a representation of "reality" but a symbolic system. Language distinguishes between the functions of expression, arousal and description, or symptom, sign, and symbol. It is important to distinguish the expression of an emotion from its arousal, the symptom from the signal, especially in the "communication" of feeling.

Communications may be symptomatic of emotive states or they may function as signals to release certain reactions. Human language and art has developed the descriptive function to inform others of a particular state of affairs past, present, or future, observable or distant, actual or conditional, visionary or imaginal. The visual image is supreme in its capacity for arousal, while its use for expressive purposes is problematic, and unaided it

may require a matching statement for clarity or illumination to convey the creator's intent or experience. Art can fail to communicate its message because the viewer lacks the experience or context or code to "get it," as the artist saw or intended it.

We are "programmed" to respond to certain visual signals; but this arousal function of sights is not confined to definite images. Configurations of lines and colors have the potential to influence our emotions. What is usually described as communication is concerned with matter rather than with mood. Like verbal messages, images are vulnerable to the random interference engineers call "noise." They use the device of redundancy to overcome this hazard. In art, this redundancy of imagery and themes creates the "style" of the artists and the body of work reflects the issues and concerns to be communicated.

The chance of a correct reading of the image is governed by three variables: the code, the caption, and the context. Jointly the media of word and image increase the probability of a correct reconstruction or effect on the beholder. The mutual support of language and image facilitates memorizing or memorability. The use of two independent channels guarantees easier reconstruction in the mind's eye. The image works in conjunction with other factors to convey a clear-cut message that can be translated into words. But the real value of imagery is its capacity to convey information that cannot be coded in any other way, frequently through the use of allusion or metaphors of known objects or entities.

The information extracted from an image (in particular, an archetypal image) can be quite independent of the intentions of its maker. However faithful an image or reproduction, conveys visual information, the process of selection always reveals the maker's interpretation of what he considers relevant. The "TELLTALE PICTURE" requires that interpretation on the part of the image maker must always be matched by the interpretation of the viewer. It is only when we are confronted with a totally unfamiliar kind of structure that we are aware of the puzzle element in any representation.

The easier it is to separate the code from the content, the more we can rely on the image to communicate a particular kind of information. A selective code that is understood to be a code enables the maker of the image to filter out certain kinds of information and to encode only those features that are of interest to the recipient. Such renderings are transitions from a representation to diagrammatic mapping and the value of the later process for the communication of information needs no emphasis.

What is characteristic of the map is the addition of a key to the standardized code. It is only a small step from the abstraction of the map to a chart or diagram showing relations that are originally not visual but temporal or logical. A network of logical dependencies (images held in the network of a piece), the diagram will always spread out before our eyes what a verbal description could only present in a string of statements. The image is non-linear.

Reading an image like the reception of any other message, is dependent on prior knowledge of possibilities, we can only recognize what we know, consciously or a priori from the unconscious. Mysticism and alchemy have often employed imagery or visual symbols to appeal to seekers after revelations. To such seekers the symbol is felt to both convey and conceal more than the medium of rational discourse.

One of the reasons for this persistent feeling is the diagrammatic aspect of the symbol, its ability to convey relations more quickly and more effectively than a string of words. A symbol can become the focus of meditation. If familiarity breeds contempt, unfamiliarity breeds awe. A strange symbol suggests a hidden mystery, and if its known to be ancient, it is felt to embody some esoteric lore too sacred to be revealed to the multitudes.

Art is not produced merely for aesthetic effects. It is the arousal function that determines the use of the medium. The cult image and its shrine mobilize the emotions that belong to the prototype. The power of such images is stronger than any rational consideration. There are few who can escape the spell of a great cult image in its setting. The mnemonic power of the image means the power of symbolism to transform a metaphor into a memorable image through vivid portrayal. Allegorical images turn an abstract thought into a picture, a poetic evocation of feelings.

There is a contrast between the prose and the poetry of image-making. The Romantic concept of genius stressed the function of art as self-expression, but the expressive symptoms of emotions is to be distinguished in the theory of communication from the dimension of arousal or description.

THE CREATIVE PROCESS

Innovation in either the sciences or arts occurs only when a single mind perceives in disorder a deep new unity. Science is an attempt to control our surroundings by entering into them and understanding them from inside, and in a subjective reality, so is art and mysticism. Both employ the processes of discovery, invention and creation. A contemplative civilization values mystic immersion in nature and the immanent emptiness within all nature (the ground state), the union with what already exists.

Art is a personal, though often anonymous creation. And scientific discovery may be as well. Both science and art seek to find the design of nature in her detail. It requires inductive thinking followed into the detail of nature, and our nature to develop visionary insight.

Theories are imaginative choices which often outstrip the given facts. Induction images more than there is ground for and creates relations, which at bottom can never be verified. Every induction is a speculation and it guesses at a unity which facts we know suggest. Every innovator has a particular way of looking at and arranging the facts, guided by a sense of aesthetic unity and beauty. Science shows us that nature has a unity, and this unity makes her laws seem beautiful in their simplicity. Our demand that nature be lawful is a demand for unity. We seek it instinctively.

We become creative, whether as artists, scientists or mystics, when we find a new unity in the variety of nature, a likeness between things (symbols or images) that were not thought alike before, and this yields a sense of richness and of understanding. The creative mind looks for unexpected likenesses, new analogies, and engaged the whole personality.

Art and science may likewise bridge the conflict between paradoxical analogies, between poetic metaphors, and enrich our understanding of the world without completing it. The images we create depend on our factual grasp of the relation between the symbols in the image. Power is contained in conjoining minute particulars which denote the change of scale between the metaphor and its application. This is the value of originality.

We expect artists and scientist to be forward-looking, to fly in the face of what is established, to create new paradigms, not what is acceptable, but what will become accepted. Like art, science is preoccupied less with facts than with relations, less with numbers than with arrangement.

New vision is the continuing search for structure. A theory is the creation of unity in what is diverse by the discovery of unexpected likenesses. In all of them innovation is pictured as an act of imagination, a seeing of what others have not yet seen. It is indeed, a creative observation of outer or inner worlds: "The Tell-tale Art."

PSYCHOGENESIS

TABLE OF CONTENTS

PREFACE
INTRODUCTION

PSYCHOGENESIS I: *ALCHEMICAL REALITY*



psycho1.html - THE SOURCERESSpsycho1.html - THE SOURCERESS*The Sourceress: Fire and Ice*

psycho1.html - BAPHOMETpsycho1.html - BAPHOMET*Pomo Baphomet*

psycho1.html - PRIMA MATERIApsycho1.html - PRIMA MATERIA*Prima Materia est Ultima Materia*

psycho1.html - EGO DEATHpsycho1.html - EGO DEATH*Black Sun: The Raven's Head*

psycho1.html - IGNIS PHILOSOPHORUMpsycho1.html - IGNIS

PHILOSOPHORUM*Ignis Philosophorum: Conceptual Calcination*

psycho1.html - HOMUNCULUSpsycho1.html - HOMUNCULUS*The Alchemical Homunculus*

psycho1.html - PEACOCK'S TAILpsycho1.html - PEACOCK'S

TAIL*Alchemical Peacock's Tail*

Psycho1.htm - MAGICKAL CHILDPsycho1.htm - MAGICKAL

CHILD*Magickal Child Mandala*

psycho1.html - SOMA SOPHIApsycho1.html - SOMA SOPHIA*Soma*

Sophia--Body Wisdom: The Natural Senses

psycho1.html - PRIESTpsycho1.html - PRIEST*The Hierophant Trumped:*

Priest of the Mysteries

psycho1.html - GODDESSpsycho1.html - GODDESS*The Great Goddess*

psycho1.html - FERTILITY RIGHTSpsycho1.html - FERTILITY

RIGHTS*Fertility Rights*

psycho1.html - EROSpsycho1.html - EROS*Eros and Psyche*

psycho1.html - THE MAGUSpsycho1.html - THE MAGUS*Mars-Venus*

psycho1.html - THE MAGUSpsycho1.html - THE MAGUS*The Magus:*

Bornless Babe in the Abyss

psycho1.html - UNIO MENTALIS:psycho1.html - UNIO MENTALIS:*Unio*

Mentalis: Solificatio

psycho1.htm - UNUS MUNDUSpsycho1.htm - UNUS MUNDUS*Unus*

Mundus: The Unitive Mystical State

psycho1.html - LAPIS PHILOSOPHORUMpsycho1.html - LAPIS

PHILOSOPHORUM*Lapis Philosophorum: The Philosopher's Stone*

psycho1.html - CHAOS NATURAEpsycho1.html - CHAOS

NATURAE*Chaos Naturae*

psycho1.html - RADIANT FORMSpsycho1.html - RADIANT

FORMS*Radiant Forms*

PSYCHOGENESIS II: CHAOSOPHY 2000



psycho2.html - Imaginationpsycho2.html - ImaginationImagination: The Voice of Creativity

psycho2.html - Postmortempsycho2.html - PostmortemPostmortem Parthenogenesis
psycho2.html - Vortexpsycho2.html - VortexThe Illuminative Vortex

psycho2.html - Animatiopsycho2.html - AnimatioAnimatio: Chaos as the Universal Solvent, I

psycho2.html - SolventIIpsycho2.html - SolventIIUniversal Solvent, II

psycho2.html - Demeterpsycho2.html - DemeterDemeter/Persephone: Return to the Womb

psycho2.html - Pitstoppsycho2.html - PitstopA Pitstop in Some Bardo

psycho2.html - EgoDeathpsycho2.html - EgoDeathRecreational Ego Death

psycho2.html - Transcendentpsycho2.html - TranscendentThe Transcendent Function

psycho2.html - Diamondpsycho2.html - DiamondDiamond Consciousness: One Star Insight

psycho2.html - Aesculapianpsycho2.html - AesculapianAesculapian Dreamhealing: Purification Ordeal

psycho2.html - Dreamhealingpsycho2.html - DreamhealingDreamhealing

psycho2.html - Divinepsycho2.html - DivineDivine Grace: Solution of Problems

psycho2.html - Resurrectionpsycho2.html - ResurrectionResurrection: Melting or Softening Process

psycho2.html - Lumenpsycho2.html - LumenLumen Naturae: The Heart of Mercurius

psycho2.html - Rebirthpsycho2.html - RebirthRebirth of the Self

psycho2.html - Knowledgepsycho2.html - KnowledgeKnowledge and Conversation: The Holy Guardian Angel

psycho2.html - Clownspsycho2.html - ClownsClowns and Christs

psycho2.html - Coniunctiopsycho2.html - ConiunctioConiunctio: The Royal Marriage

PSYCHOGENESIS III: MYTHOPOESIS part 1



The Secret Teachings of All Ages

psycho3.html - ANTHROPOSpsycho3.html - ANTHROPOSThe Anthropos: The Archetypal Man

psycho3.html - SOPHIAPsycho3.html - SOPHIASophia: Sapientia Dei

psycho3.html - WHEELSPsycho3.html - WHEELSWheels Within Wheels: As Above/So Below

psycho3.html - KETHERpsycho3.html - KETHERKether is in Malkuth

psycho3.html - MYSTICpsycho3.html - MYSTICMystic Eye: Sound & Vision

psycho3.html - STARRYpsycho3.html - STARRYStar Woman: Another Starry Night

psycho3.html - INNERpsycho3.html - INNERThe Inner Egg Meditation

psycho3.html - CRADLEpsycho3.html - CRADLEWitch's Cradle



psycho3.html - VOICEpsycho3.html - VOICEVoice of Athena
 psycho3.html - MYSTERYpsycho3.html - MYSTERYGreat Mystery of Life: Mystery
 Beyond Form

Egypt: The Doctrine of Eternal Life



psycho3.html - DOCTRINEpsycho3.html - DOCTRINEEgyptian Alchemy: Four Worlds
 Without End
 psycho3.html - INFINITEpsycho3.html - INFINITEInfinite Space is the Goddess Nuit
 psycho3.html - ISISpsycho3.html - ISISIsis: Veiled and Unveiled
 psycho3.html - EYESpsycho3.html - EYEEyes of Isis
 psycho3.html - SERPENTpsycho3.html - SERPENTSerpent Flower
 psycho3.html - HORUSpsycho3.html - HORUSHorus or Harpocrates
 psycho3.html - SONSp psycho3.html - SONSThe Four Children of Horus
 psycho3.html - RAISINGpsycho3.html - RAISINGIsis Raising Osiris
 psycho3.html - OSIRISpsycho3.html - OSIRISSirius Rising
 psycho3.html - BARQUEpsycho3.html - BARQUEPharaoh's Barque
 psycho3.html - STAIRWAYpsycho3.html - STAIRWAYStairway to Heaven
 psycho3.html - HEARTpsycho3.html - HEARTThe Heart of Osiris
 psycho3.html - CIRCLEpsycho3.html - CIRCLECircle of Selket
 psycho3.html - WORLDSpsycho3.html - WORLDSWorlds Without End
 psycho3.html - MAGICpsycho3.html - MAGICThe Heart of Egyptian Magic

The Search for the Holy Grail



psycho3.html - QUESTpsycho3.html - QUESTQuest for the Grail Castle
 psycho3.html - GRAILQUESTpsycho3.html - GRAILQUESTThe Grail Quest
 psycho3.html - EMERGENCEpsycho3.html - EMERGENCEEmergence: Unsuspended
 Animation
 psycho3.html - MULTIPLICATIOpsycho3.html - MULTIPLICATIOMultiplicatio:
 Jacob's Ladder
 psycho3.html - HYPNOSpsycho3.html - HYPNOSHypnos, Lord of Dreams
 psycho3.html - QABALISTICpsycho3.html - QABALISTICQabalistic Cross: Promise of
 Consilience
 psycho3.html - VISIONpsycho3.html - VISIONVision of Chesed
 psycho3.html - MARSpsycho3.html - MARSRegenerate Mars

PSYCHOGENESIS IV: MYTHOPOESIS part 2

Eastern Enlightenment



psycho4.html - TANTRICpsycho4.html - TANTRICTantric Hyperspace
 psycho4.html - BUDDHAPsycho4.html - BUDDHADeathwatch: The Jewel Is In the Lotus
 psycho4.html - BUDDHAPsycho4.html - BUDDHABuddha Dreaming
 psycho4.html - SECRETpsycho4.html - SECRETMeditation of the Jade Warrior



psycho4.html - SECRETpsycho4.html - SECRETSecret of the Golden Flower
psycho4.html - BARDOpsycho4.html - BARDOBardo Thodol
psycho4.html - KNOTpsycho4.html - KNOTThe Knot Without Beginning or End

Mysterious Visitors

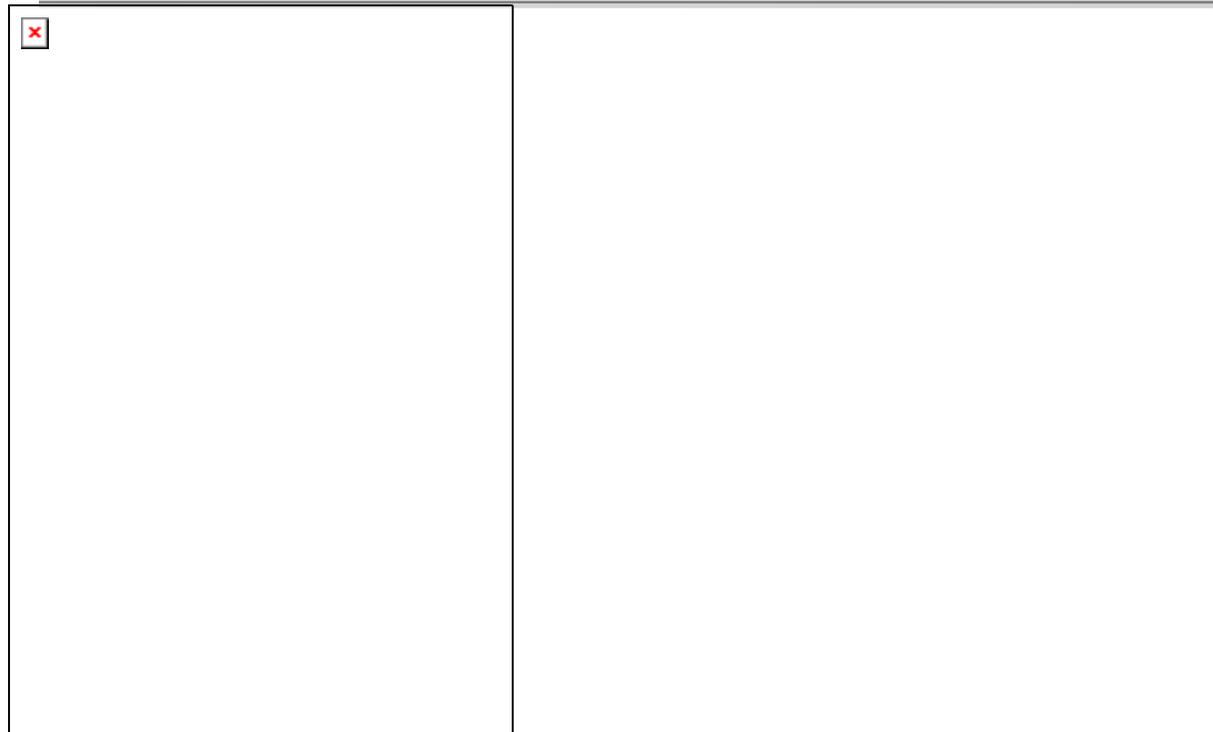


psycho4.html - BIOFIELDSpseudo4.html - BIOFIELDSBiofields and Tulpas
psycho4.html - EARTHpsycho4.html - EARTHEarth Mother/Sky Father
psycho4.html - ECHOESpsycho4.html - ECHOESSumerian Echoes
psycho4.html - LEGACYpsycho4.html - LEGACYSumerian Legacy
psycho4.html - EZEKIELpsycho4.html - EZEKIELWhat Ezekiel Knew
psycho4.html - POSTMODERNpsycho4.html - POSTMODERNEzekiel's Postmodern Vision
psycho4.html - UFOSpsycho4.html - UFOSUFOS II
psycho4.html - MAYANpsycho4.html - MAYANMayan Mysteries
psycho4.html - ABDUCTEESpsycho4.html - ABDUCTEESAbductees Dream of Mutant Hybridization
psycho4.html - ANDROIDSpseudo4.html - ANDROIDSDo Androids Dream of Electric Sheep?

Archaic Ancestors



psycho4.html - EVOLUTIONSpseudo4.html - EVOLUTIONSEvolution's Message: Recycle
psycho4.html - SHAMANICpsycho4.html - SHAMANICShamanic Dreams
psycho4.html - LINKpsycho4.html - LINKThe Unbroken Link
psycho4.html - NEANDERTHALpsycho4.html - NEANDERTHALNeanderthal Dreams
psycho4.html - FRUITFULpsycho4.html - FRUITFULAncestral Voices
psycho4.html - YOUpsycho4.html - YOUUniversal Truth No. 1: You Are Here



MYTHOPOESIS: THE POSSIBLE HUMAN

Heir to the Campbell legacy, Jean Houston is one of the great mystery teachers of our time. She is one of my personal Heroes. Because some of my work parallels hers, her comments are germane to my own experience--only she can put it so much better than I. So, I take the liberty of selecting from some of her latest work, because it so succinct and pertinent.

In *A MYTHIC LIFE*, (1996, Harper Collins: San Francisco;<http://www.harpercollins.com>) Jean describes her personal experiences. I'm using her words for now, as her first-person account can substitute pretty much for my own consciousness experiments with myself and others:

"I began offering field trips in subjective realities. Using hypnosis and trance, guided meditation, we entered inner realms of imagery and subjective realities. [This is the model of archaic shamanism, magic, mysticism, and modern psychotherapy.]

After an initial experience of abstract images followed by images or feelings with more psychological content, my students would often experience a kind of visionary anthropology made up of fairy tale narratives, myths, archetypal figures, visits to "other worlds" and "other dimensions," and similar science-fiction-like schema. It was fascinating to notice how many elements of the traditional hero's journey came up during these visits to inner worlds. This suggested that, despite cultural variations, the pattern of the hero's journey might be coded universally in the human mind and psyche.

After some time in these inner worlds had elapsed, I would tell my students, "You are about to experience something that can be very powerful, a symbolic death and rebirth." Next, I would tell them that a symbol would now arise in their consciousness that stood for their essential self. Once they sensed this, I would ask them to observe this symbol as it grew smaller and smaller, until at last it disappeared. "Then," I would add, "you may experience a kind of dying, and when this has been known fully, there will be a rebirth. Please know that you do not have to have this experience but that it is now available to you if you do want to have it."

[As an evocateur of spiritual experience] I wondered what we are to make of such religious and mystical experiences? Why, when the suggestion is given, are they so natural and ordinary and so readily evoked? In fact, it warned me how close to the surface is religious ecstasy and how easily it can be called forth and misused.

[Session work showed me] that each possible human is not a member of some collective, but a profoundly individual and precious demonstration of life in its infinite variety. This is certainly true on the physical plane and unimaginably more so when it comes to experiencing the internal realms. Indeed, the possible human can think in inward images and experience subjective realities as strikingly as she can know objective ones. She listens to inward music as complex as any symphony, in fact often richer, for instruments and sounds are added that are unknown...She uses these images to entertain herself as well as to provide the materials of creativity and invention. She is already an adventurer into a vast reservoir of virtual realities and

needs no machine to assist her. She knows that self-creating works of art are always budding out of the fields of her mind, and she can capture and rework them as she wishes.

Consciousness for her is a vast landscape, a continuous landscape, and she travels its length and breadth at will. She enters a state of meditation here, a region of deep trance there, finding shortcuts into the realms of fantasy and imagination, spelunking her way into the caves of creativity. She continues to discover the many cultures of her psyche and has matriculated in the Innerversity, studying all manner of knowledge and wisdom that these cultures within provide.

She has many friends and allies in the inward and imaginal worlds, the most important of whom may be the beloved of the soul, the spiritual friend who is her archetypal partner and the companion of her depth reality. And, whenever she feels ready, she journeys to the source places of her soul, where she partakes of the everlasting waters of life and the spirit. She lives daily life as spiritual exercise, and her radiance affects all who meet her, for she is deeply empathic, knowing herself part of a seamless kinship with all living things. Being more, and using more of herself, she feels and cares more deeply about the decay and degradation in the social and moral order. In spite of evidence to the contrary, she recognizes others as God-in-hiding, and in whatever way she can, she calls them back to their own possible humanity. This possible human is not mere fantasy.

I have found that most people, given opportunity and training, can learn to think, feel, and know in new ways, to become more creative and more imaginative, and to aspire within realistic limits to a much larger awareness, one that is superbly equipped to deal with the complex challenges of modern life. True, we have never achieved the fully functioning person described above, but we are getting closer.

Many people have allowed me to tap into the streams of realities that exist within them, and what I see in these streams are other realms. I must conclude that our local existence is nested in the domain that I call the "We Are." This is the abode of symbols, guiding archetypes, and myths. Enduring in an eternal world outside time and space, and thoroughly transhistorical, the We Are realm functions as the contact point for sacred time and space, the container for that which never was but is always happening. Since its source is complex, its coding is intense.

By this I mean that the archetypal image bears within itself multiple meanings, modds, potentials, dimensions. Thus the human psyche is inherently polytheistic, which is why sacred psychology has to honor the gods and goddesses in everyone. To me, what we call "gods" are actually encoding of particular energy patterns from the We Are realm seen with certain qualities and moods to help us relate to them more personally. That is today, this realm is the place where the self joins its larger possibilities--when perceived as gods and goddesses. In Sanskrit, these being are called yidams, personified river to the ocean of being.

The gods are forces that have crystallized in the consciousness of human cultures and are revered as personalized emanations of a greater and unnameable power coming

from both within and beyond the psyche. Sometimes they assume a humanized, semihistorical form [a Master of consciousness exploration]. We may feel a particularly loving resonance with such beings who have been elevated to godhood, identifying with both their numinous power and their storied humanity.

Virtually every culture has tapped into this archetypal realm to acquire the energies of the stories that illumine rites of renewal and social transformation. For example, since the We Are realm is the residence of creation myths and the energies of origins, many cultures have their priestesses, priests, shamans, and rulers enact a central creation myth at the time of the new year. They play the parts of the gods who conquer the principles of chaos, restoring order and recreating the world. In this way, they bring the Great Time of creation and deeper reaches of the psyche back into the local world of the This Is Me. In so doing, nature is restored, and psyches of both community and individual are granted the healing energies of new life.

Today, what we call the gods come down to us as the imaginative products of earlier historical ages--Greek, Roman, Egyptian, Asian, Native American. They are, in fact, numinous borderline personalities. Embedded in earlier myths and ways of being, they serve as vehicles through which we may come to understand our strengths as well as our shadows. They grant us perspective into the ways in which certain behavioral patterns dominate our lives. Part of the emergence of an archetypal spirituality and mythology is the ongoing story of our allowing the gods their growth as we in turn deepen our humanity. Only then can we see the divine beings as partners in creation.

The divine-human partnership has thus become the leading archetypal image for our time. The partnership is one that mystics and poets have long known to be true, for myths and archetypes communicate from the poetic level of mind and thoughts, allowing nature to speak to the imagining soul rather than just presenting us with scientific laws and probabilities. The poetic mind is of a higher order of coherence, because it has color, aesthetic form, rhythmic relation; it belongs to a finer frequency of the mind-brain continuum. Indeed, evidence exists that in certain states of consciousness, the mind-brain system appears to move into a larger wave resonance, a frequency that may itself be nested in a continuum of mind beyond the field of the experiencing body. In this state, mystics and highly creative people come back enriched and enlivened to do or think remarkable things. When we meet myths and archetypes in this state, we can speak directly to the inner imaginal realm in which mind, nature, and spirit converge, and our highest potentials become available to us.

I once studied fifty-five of the most creative thinkers, scientists, and artists alive in America. These people had sustained a high level of creativity over many years. I talked to them at length, ran tests, and observed them when they were both "on" and "off" their creative bent.

What I found is that most had trained themselves to delve consciously into depth levels of reality in which the forms and creations of their imaginative life and works were conceived. They drew their insights not only from their own capacious minds but also from the great creative archetypal realm wherein are "stored" the principles that source new ideas and forms.

I also discovered that a majority of them felt that they were partnered by an archetype, a beloved of the soul, a spiritual partner who amplifies the deeper aspects of the self. This relationship disengages us for a while from the demands and demeanings of our local, ego-focused personalities and allows us to view our personal concerns from a universal perspective.

Beyond and within the other two realms lies the realm I call the "I Am." This is the realm of Being itself, pure potency, love, the very stuff of reality. This is the realm many know as God. This does not mean "the gods," they live in the We Are; rather, it means God as the ground and unified Essence of being.

About this realm nothing and everything can be said. The I Am is the supreme fractal wave from which everything branches, out of which everything comes forth. We bear its signature in the wave forms of our cells, the curvings of our histories. God is always calling to the human heart. We are signalled all the time by the pulsings of original grace.

The seed within, which held and nurtured the divine spark, is now fully grown, and we find ourselves transplanted into the vast gardens of universal life.

CHAOSOPHY 2000

Today we are in a period of cultural and personal expansion. We are experiencing not just the revival of ancient images, but also the harvest of all the world's cultures, belief systems, ways of knowing, seeing, doing, being. Gradually we discover that these stories are our own stories, that they bear the amplified rhythms of our own lives, deepening and enhancing us, filling us with a sense of the fractal resonance of the mythic life within our own.

Working with myth, we assume the passion and the pathos of Isis as she seeks to recover the remains of her husband Osiris; with Parsifal, we take on the quest for the Grail; we labor with Hercules and travel with Odysseus into the archetypal idlands of inner and outer worlds. It requires that we undertake the extraordinary task of dying to our current, local selves and of being reborn to our eternal selves.

A psychology with a mythic or sacred base demands that we have the courage both to release the limitation brought about by old wounds and toxic bitterness and to gain access to the undiminished self with its vast inner storehouse of capacities. We can then use these capacities to prepare ourselves for the greater agenda--becoming an instrument through which the source may play its great music.

Then, like the hero or heroine of myth, we may, regardless of our circumstances, become an inspiration for helping culture and consciousness move toward its next level of possibility. At this we startle, we shake. The scope of this dream demands that we live out of our true Essence, which is always too large for our local contracted consciousness to contain. It requires many mythic adventures of the soul to reloom body and mind.

Myths have such power because they are full of archetypes. Archetypes are many things--primal forms, codings of the deep unconscious, constellations of psychic energy, patterns of

relationship. Our ancestors saw them in the heavens, as Mother Earth, Father Sky, Sister Wind. They were the great relatives from whom we derived, and they not only gave us our existence, they continue to personify as mythic characters and their stories, such as that of the holy child.

As major organs of the psyche, archetypes give us our essential connections, and without them we lose the gossamer bridge that joins spirit with nature, mind and body, and self with the metabody of the universe. Archetypes are organs of Essence, the cosmic blueprints of how it all works.

Because they contain so much, archetypes frustrate analysis and perhaps can only be known by direct experience. Thus, in the journey of transformation, we participate in these symbolic dramas and actively engage in archetypal existence. We form a powerful sense of identity with the archetypal character, and this mythic being becomes an aspect of ourselves writ large. Symbolic happenings appear with undisguised relevance, not only for our own lives and problems, but also for the remaking of society.

Joseph Campbell told Jean Houston that she is supposed to help find the correspondences between myth and everything else--history and science and psychology and what's trying to happen in the world--the pathways from the past and the pathways to the future. Myth sheds its radiant light on the multiplicity of human learning as well as the mysteries of the human heart. They are the "mything links."

Campbell summarized the process in his classic accounts of the Hero's journey with its characteristic tasks, such as "the call to adventure." Some of us feel the call every minute. The next stage in Campbell's cycle of the hero's journey is the *refusal of the call*, putting the summons off or delaying it because it comes at an inconvenient time or because one doesn't feel worthy.

The hero risks crossing the threshold of adventure, to enter a realm of amplified power. In the traditional journeys, this stage involves leaving the world of ordinary reality and entering the inner, visionary realms, confronting the guardian of the threshold. The real threshold guardian is in ourselves, the part of us who will not release our hold on consciousness enough to let the ego dissolve our boundaries and ooze into that deeper realm, the via positiva.

Once across, the hero is swallowed by the unknown, be it a whale, a wolf, a sarcophagus, or a cave. It takes many guises and can take the form of a depression or ingression, even a strong need to get away from it all. The road of trials in the hero's journey is a time of incredible tests, ordeals, and extraordinary adventures.

After securing the boon, there is magic flight back across the threshold with the boon intact...integrating the results of the journey. Once you answer the call to a larger life, there is no turning back. We learn to think mythically. Life is allied with myth in order that we may advance along an evolutionary path carrying us nearer to the spiritual source that lures us into greater becoming.

It grants us access to the DNA of the human psyche, the source patterns originating in the ground of our being. It gives us the key to our personal and historical existence. Without

mythic keys we would have neither culture nor religion, no art, architecture, drama, ritual, epic, social customs, or mental disorders.

We humans are the storied, mythic links between the great patterns of existence and the local experiences that assure their continuity in the world of time and history. In my current work, I often use variations of this pattern as the loom on which to weave journeys of transformation drawn from the world's great myths and stories. I find that regardless of the culture, people will go further and faster in developing human capacities if their training is tied to a story, especially a myth. For myth transcends and thus transforms our usual blocks and conditionings, carrying us into a realm in which these need not constrain us. And if the myth is a familiar one, present in the fabric of the culture, it works even better.

How do we achieve our own renaissance of mind and spirit? By connecting with a potent sense of our own Essence. Essence is not a place or a time, an insight or even a state of mind. It is the deepest part of our nature, an actual presence that is innare and inborn. When it wears a personal face, it is called an angel or a daimon, or genius. Still others think of it, in its incorporeal form, as the soul. It does not develop with education or maturity.

It is beyond symbols, and is, therefore, neither archetype nor angel, neither wise old man or woman, nor divine child. These symbols point the way to Essence, the incorruptible "diamond body." Essence is so real, so substantial, that it exceeds all symbols, images, and language in deep and profound living embodied experience.

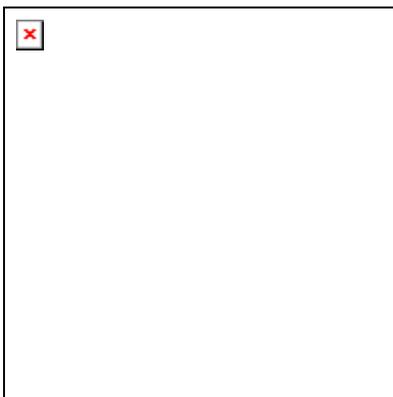
When we first climb out of the bottom of the well, we experience Essence as a strange and beautiful country of the soul. It brings a clarity, a precision that seldom comes from reasoning, intuition, or insight.

The deepest values, purposes, and patterns for life, the richest potential coding for existence, the source level of creative patterns, innovative actions, and ideas become known to us from the perspective of Essence through its rediscovery of life's higher purpose through the images.

VIRTUE-AL TANTRA

A Contemporary Guide to Spiritual Sex

Iona Miller, ©2002



Four Worlds or Planes of Spiritual Sexuality

PHYSICAL: Body As Temple
EMOTIONAL: Feelings As Motivators
PSYCHOLOGICAL: Romantic Concepts
SPIRITUAL: Spiritual At-one-ment

Physical, Emotional, Psychological and Spiritual Aspects of Sacred Sex

<p>PHYSICAL</p> <p>body as temple sexual anatomy diet and exercise; aging kegels hormones pheromones scent foods; aphrodisiacs pharmaceuticals baths and cleansing pranayama-breath control semen retention embedded holograms/quantum tantra</p>	<p>EMOTIONAL</p> <p>feelings as motivator poetry fetish narcissism projection sex addiction folie a deax co-dependence/interdependence fantasy rapport trust intimacy commitment</p>
<p>PSYCHOLOGICAL</p> <p>thoughts as romantic concepts mind - the primary sexual organ mythic dimension/eros and psyche anima/animus sensuality eroticism creative visualization alchemy of sex coniunctio -- the union of opposites androgyny notion of soul mates/twin-flames</p>	<p>SPIRITUAL</p> <p>beliefs and spirituality agape/devotion/bhakti chakras Yin & Yang channeling passion raising the serpent power identification - assuming the godform alchemy - sublimation (ennobling) merging as god/goddess unification with the Beloved meditation and mysticism</p>

Tantra

Pronounced As: tuntr , in both Hinduism and Buddhism, esoteric tradition of ritual and yoga known for elaborate use of mantra, or symbolic speech, and mandala, or symbolic diagrams; the importance of female deities, or Shakti; cremation-ground practices such as meditation on corpses; and, more so in Hindu than in Buddhist tantra, the ritual use of wine, meat, and sexual intercourse. Tantric practices use both ritual and meditation to unify the

devotee with the chosen deity. In Hindu Tantra, practice is graded into three types, corresponding to three classes of devotees: the animal, i.e., those in whom the guna, or quality, of *tamas* (darkness) predominates; the heroic, those in whom the guna of *rajas* (activity) predominates; and the divine, those in whom *sattva* (goodness) predominates (see Hindu philosophy). The practice of the heroic devotee entails actual use of the five elements, called the five *m*'s: fish (*matsya*), meat (*mamsa*), wine (*madya*), aphrodisiac cereals (*mudra*), and sexual intercourse (*maithuna*). The animal devotee, not yet ready for the heroic practice, performs the rituals with material symbols; for the divine devotee the rituals are purely internal and symbolic. The object of the rituals, attainable only by the divine devotee, is to awaken kundalini energy, which is identified with *Shakti*, and merge with the Godhead. In Buddhist Tantra, or *Vajrayana*, in contrast to the Hindu, the female principle of "wisdom" (*prajna*) is seen as static, whereas the male, or "means" (*upaya*), is active. In Buddhism, rituals that appear to break basic moral precepts have for the most part been dropped, but the complex meditation practices have been retained.

The Kama Sutra, the classical Indian treatise on the Art of Love, describes Sixty-four Arts to be practiced along with the *Kama Sutra*. The number sixty-four reminds of the hexagrams of the *I Ching*. These arts add to one's graciousness, charm, and desirability. These arts and sciences include singing, music, dancing, writing, drawing, painting, sewing, reading, recitation, poetry, sculpture, gymnastics, games, flower arranging, cooking, decoration, perfumery, gardening, mimicry, mental exercises, languages, etiquette, carpentry, magic, chemistry, mineralogy, herbology, healing, gambling, architecture, logic, charm-making, religious rites, household management, disguise, physical sports, and martial arts plus many contemporary activities. We might include recent technical innovations, such as digital photography, and leading-edge notions such as the marriage of science and art in physicist Nick Herbert's *Quantum Tantra*.

Find more on sacred sex and the 64 Arts of Tantra in:

Miller, Richard A., *THE MAGICAL AND RITUAL USE OF HERBS*, OAK Press, Seattle, ©1977 - reprinted by *Destiny Books*, 1983.

Miller, Richard A., *THE MAGICAL AND RITUAL USE OF APHRODISIACS*, *Destiny Books*, New York, 1985.

Miller, Richard and Iona, *THE MAGICAL AND RITUAL USE OF PERFUMES*, *Destiny Books*, New York, 1990.

Miller, Richard and Iona, *THE MODERN ALCHEMIST*, *Phanes Press*, Grand Rapids, 1994.

SEX AROUND THE WORLD

[Paraphrased from "International Sex Handbook", Susan Crain Baikos, *Glamour*, August 2001, p.148]

ITALY

Your inspiration: Monica Belluci in *Malena*

Sex technique: The corkscrew twist, an appealing addition to the woman-on-top position.

How to do it: Remember that Sit n' Spin toy you had as a kid? Try the adult version. Sit on top of him, put him inside you and lean forward, lifting yourself three quarters of the way up his penis (put your hands on his shoulders for balance). Then move your pelvis to the right and push yourself down at the same time; pull back up and then move your pelvis to the left as you push down again. Go back and forth like this until he can't remember his own name but is moaning yours. For advanced students: Tighten you PC muscles on the downward push, then relax them while coming back up. Or bend backward while doing the corkscrew twist, your hand resting on his knees.

ETM (Estimated time before mastery): Less than 10 minutes.

*

SPAIN

Your inspiration: Victoria Abril in *Tie Me Up! Tie Me Down*

Sex technique: Fellatio

How to do it: Using silk scarves, lightly bind his wrists to the bedposts. When you're sure he can't move, grip his penis in your hand and run your tongue around the head like it's the best gelato you've ever had. Next, stroke his penis from the head down to the base (most men prefer the downward stroke). By now he ought to be harder than calculus.

After a few minutes, hold the base of his penis (not too firmly--you're not switching gears) while you wet your lips and place your mouth over the head of his penis. Then run your lips and tongue up and down the corona (the ridge separating the head from the shaft) and the frenulum (the section of skin on the underside of the penis from the coronal ridge to the beginning of the penile shaft). With your free hand, lightly massage both his scrotum and perineum (the skin between the base of the penis and the anus).

Try the tongue strokes favored by Spanish women, such as the "silken swirl," in which you slide the head of his penis in and out of your mouth while simultaneously and continuously circling it with your tongue--it's like rubbing your stomach and patting your head, but with a payoff -- and the "butterfly flick," in which you flick your tongue lightly and rapidly across the corona.

ETM: Three to four sessions and you can lick anybody.

*

FRANCE

Your inspiration: Catherine Deneuve in *Belle de Jour*

Sex technique: The authentic French kiss.

How to do it: Instead of that overeager teen approach, go for slow, delicate moves. Kiss his lips, then suck each one gently. Draw your tongue across them. Circle his tongue with the tip of your own, pull back and do it again. Then run the tip of your tongue along the edges and underside of his tongue. When this has driven you both sufficiently wild, thrust your tongue in and out in rhythmic movements--but not too quickly or for too long--then go back to the moves you were doing before. By this point, you should know his mouth better than his dentist does--and be well on your way to some more serious below-the-neck exploration.

ETM: Like a croissant, you heat it up in three minutes or less.



MOROCCO

Your inspiration: Salma Hayek's dance scene in *From Dusk Till Dawn*
Sex technique: Belly Dancer's eye embrace.

How to do it: All women know that if you want to discover the truth, you just look in someone's eyes. Luckily, there are three levels of provocative eye contact that will let you convey what you may be too shy to express--basically, you think the dirty thoughts, and your eyes will do all the dirty talking for you. First is the brief intense glance, in which you instantly lock eyes with your partner for just a second or two and then quickly avert your own. Second is the eye flirt, during which you repeatedly look away and then back as a tease. Finally, there's the eye embrace, a deep engagement that lasts longer than a few seconds. Use them all. And make love with your eyes open.

ETM: 10 minutes.

*

INDIA

Your inspiration: Sarita Choudhury in *Kama Sutra: A Tale of Love*
Sex technique: Butterfly Quiver, a specialty of ancient Hindu priestesses meant to intensify orgasms.

How to do it: You'll need two things for this. One is a set of PC muscles that could yank a cork from a champagne bottle; the other is a very cooperative partner. Have intercourse in any position, but pay attention to his arousal level. When he's near ejaculation, ask him to thrust as slowly as he can. Keep your pelvis still and pulsate your PC muscles, contracting and releasing like the flutter of butterfly wings. During this quick grip-and-release motion, he'll feel as if his orgasm is being pulled from his body.

ETM: Up to two months; less if you've been doing your Kegels regularly. (Squeeze the muscles you use to stop the flow of urine; hold each squeeze for 10 seconds and do 20 10-second holds five times a day.)

*

ENGLAND

Your Inspiration: Kristin Scott Thomas in *The English Patient*

Sex technique: British love bites (rough kisses on lips and nipples)

How to do it: After a long bout of kissing, take his lower lip between your lips and suck firmly, not as if you're trying to get a shake through a straw--you don't want to cause injury--but enough so that it's a surprise. Graze his earlobe with your teeth, then gently bite down on it. Do the same thing to his nipples. Let his reaction guide you as to how much pressure is good--some people like a little pain, some don't. Just don't go performing any piercings without a license.

ETM: Less than five minutes.

*

JAPAN

Your inspiration: Eiko Matsuda in *In the Realm of the Senses*

Sex technique: Electronic orgasms

How to do it: Modern Japanese women are among the world's sex-toy experts. Like them, you can order toys from catalogs or online. Consider the Butterfly, a vibrator that attaches to a G-string and covers the clitoral area. This can be used to arouse you for intercourse or worn during intercourse. Or wear a specially designed vibrator on the back of your hand as you manually stimulate him and feel like Jamie Sommers as the Bionic woman. For example, during fellatio, hold the shaft of his penis with your vibrator hand, moving it up and down the shaft while you do some of the tricks you learned in, oh, say Spain.

ETM: Less than 10 minutes.

TANTRIC LUNAR RESONANCE MEDITATION Its Links with Tarot and the Western Tradition

by Richard and Iona Miller
(aka Philo Stone, 1981; revised and updated, 2002)

This article was originally prepared for Miller and Miller's *Holistic Qabala*, but ran in Volume I (Autumn 1985) of Tom Lyttle's (Ed.) *Psychedelic Monographs and Essays*. It discloses a relationship between ancient Vedic meditation practices and mathematical anomalies in the Moon's orbit only discovered by NASA in the last

century.



During Vedic and pre-Vedic periods, (according to sources such as *Satapatha Brahmana* and *Taittiriya Sanhita*), there were certain times of each month when the priests would meditate on specific symbols. The belief was that, if one meditated in synchronization with these phases, it could be compared to riding on a swing. A kick at the right point could put more energy into the swing than at any other point in the cycle. The ancient belief was that meditation on certain symbols at specific times related to phases of the moon would add '*soma*' to the body more than at other times of the month. Though the nature of *soma* has been hotly debated, most agree it produced optimal spiritual growth.

Farmers and gardeners have for centuries known the profound differences in weather, plant growth, and seed-timing associated with lunar phases. Newer research shows the moon's effect on the electromagnetic fields of the earth, and their subsequent biological influence. Specific examples can be found in the lunar sex cycle of the female, and the insomnia and emotional instability characteristic of the Full Moon phase.

Less well-known is that the moon may be used as a means of spiritual regeneration and accelerating the growth of the "diamond body," or spiritual vehicle. There is a higher spiritual aspect to the Moon Goddess than that represented as Yesod in the Tree of Life, or psychologically as the "personal" anima, (one's projected feminine ideal). Anima Mundi, or the Divine Inspiratrix, is represented on the Tree of Life and in Tarot by Trump II, the *High Priestess*, the crescent Moon. This Goddess not only confers 'immortality,' but also wisdom and inspiration. She is our medium, mediator or intercessor with the divine.

Soma and the Moon

Myth states that inspiration of the moon comes from the dark phases and from the soma drink which is brewed from the moon tree. The biological basis of this intoxicating recipe has been debated, and proposed answers range from magick mushrooms to long-extinct herbs. Nevertheless, this inspiration is described as the antithesis of rational thought, embodied in dark obscure movements, thoughts and impulses of darkness. It manifests as an intoxicant, producing an enthusiasm which may even lead to madness.

Soma was considered a universal life power dispensed in great abundance during the waning moon. It could be absorbed directly in meditative states without having to ingest any plant at all. Certain plants were held to be particularly efficient in collecting and storing soma, this mysterious psychic energy. Those eaten with the power to change consciousness were held sacred as embodiments of deities.

Psychologically, the ritual for absorbing soma is designed for relating oneself properly to the feminine principle -- what has become popularly known as the Goddess. Then one gains access to the eternal, immovable aspect of psyche, the reality of Self, which transcends the duality of gender descriptions. When drinking in soma (entheogen), the initiate becomes filled with the god (entheos). The inner voice of the daemon speaks, uncensored, and takes control for a time. In Magick this is called "assuming the god-form," an epiphany -- a miracle marriage, the merging of subject and object, figure and ground, profane and sacred.

Through communion in the meditative process, an individual becomes acquainted with his/her own limits, depths and ultimate reality. The highest incarnation of the female form of the Holy Spirit confers the deepest revelation. The goddess is a powerful wisdom-figure and psychological force having the power to mold destiny. As well as High Priestess, she is Shekinah in Judaism, Sekina in Islam, Shakti in Hinduism, Sophia in Gnosticism, Virgin Mary in Christianity, Artemis in mythology. These are common forms for women's experience of the higher Self.

There is a familiar passage from the Hermetic texts, called The Veil. It emphatically states that the veil signifies the Veil of the Universe or Robe of Isis. Magician Aleister Crowley said this Veiled Isis "is clothed only in the luminous veil of light. It is important for the high initiation to regard Light not as the perfect manifestation of Eternal Spirit, but rather as the veil which hides that Spirit."

These passages might be read as an exhortation to penetrate beyond the brightly lit region of Tiphareth, the heart center and solar consciousness -- passed the region of the stars (The Universe), moon (Yesod) and sun (Tiphareth) of the astral world. The higher arc of Lunar consciousness is a more diffuse awareness, a dark-adapted Third Eye, an ability to penetrate the Void by discerning the dimly lit regions or 'Dark Matter and Energy' of the deepest layers of the primordial unconscious to the Ground State of Being.

True initiation implies breaking through the Veil of the Virgin, first into self-realization then into God-realization. The veil is part of our spiritual nature; it epitomizes the blocks to our enlightenment as embodied in our personalities and our souls' attachment to our minds, and to Universal Mind. To raise it means to dis-identify and deconstruct ourselves until we find our fundamental unification with divinity. It means to transcend the limits of individuality and become consciously immortal (or, conscious of our inherent immortal nature). The soul is released from the constraints of time, space and ego-orientation.

Turning psychological energy inward, through meditation, is a characteristically feminine process. This introversion and brooding produces a "psychic child" which corresponds to Jung's concept of individuation. He wrote about this 'divine child' at length in *The Secret of the Golden Flower* in Taoist terms, but it also appears in Western metaphysics as the Diamond Body. Individuation's greatest value is attached to an activity of the creative imagination known as "soul-making." Careful aesthetic elaboration of an event *is* its significance. There is NO separation, in soul-making, between an event and its meaning. A sense of the sacred is, thereby, returned to daily activity and, in fact, seamlessly welded to it.

This inner marriage of intentionality and inwardness, of masculinity and feminine components gives birth to the inner child and release from the power of death. In a sense, in meditation one learns to "die daily." Death becomes a familiar guest, and brings Grace in its wake. Ego-death is induced by withdrawing the external focus of the senses and focusing attention at the Eye Center. Successful accomplishment of this process, this child, is the Self in embryonic form, ever renascent, the fruit of psychic development.

The "Inner Moon" Chakra

Soma is also associated in yogic practice with the "inner moon" chakra, analogous to the pituitary and pineal glands. This "inner moon" is said to shower subtle secretions, or soma drops, which nourish the psychophysical organism. These glands directly influence physiological processes. The pituitary regulates, among other functions, sex hormones, metabolism, and growth and development of the individual.

The pineal develops from specialized tissues and is proximate to cerebrospinal fluid channels, and crucial emotional and sensory brain centers. It is separated from the hypothalamus and visual and auditory relay stations only by a resonant cavity -- one of the brain's fluid-filled ambrosial 'lakes' or ventricles. The pineal hangs from the roof of the ventricle. Certain practices, such as intense fine-tuning of attention and awareness, can amplify or prolong its chemical effects, making us see, hear, feel and think differently.

The pineal produces the sleep drug melatonin and is alleged to produce endogenous or natural DMT, a psychedelic chemical, by psychiatrist Rick Strassman (2001, *DMT: the Spirit Molecule*). A main characteristic of this chemical, the biological basis of spiritual experience, is the production of Light. According to Strassman, the psychedelic pineal "*is unique in its solitary status within the brain. All other brain sites are paired, meaning that they have left and right counterparts... As the only unpaired organ deep within the brain, the pineal gland remained an anatomical curiosity for nearly two thousand years.*"

DMT is physically immobilizing and produces a flood of unexpected and overwhelming visual and emotional imagery. Pineal DMT release may also mediate sexual ecstasy, resulting from strenuous exertion, hyperventilation, and intense emotions. This may be the driver behind the psychedelic nature of the Tantric sexual experience. High levels of natural DMT production are also implicated during heightened awareness during stress and in the clear light of Near-Death Experiences (NDEs).

"All spiritual disciplines describe quite psychedelic accounts of the transformative experiences, whose attainment motivate their practice. Blinding white light, encounters with demonic and angelic entities, ecstatic emotions, timelessness, heavenly sounds, feelings of having died and been reborn, contacting a powerful and loving presence underlying all of reality -- these experiences cut across all denominations. They also are characteristic of a fully psychedelic DMT experience," (Strassman, 2001). And meditation can evoke the pineal DMT response. The deeper the meditation, the slower and stronger the brainwaves become, like a standing wave in a river. These waves create a unique note, or sound, a resonance effect. *"The pineal begins to "vibrate" at frequencies that weaken its multiple barriers to DMT formation ...the end result is a psychedelic surge of the pineal spirit molecule, resulting in the subjective states of mystical consciousness."*

The Moon, Tantra and Hyperdimensional Numbers

More than 20 years ago, Richard Wurtman of M.I.T. stated that stress activates the pineal gland. This then exerts an inhibitory influence on the body's stress mechanism (the hypothalamic-pituitary-adrenal axis). In view of the pineal's sedative effect on the Central Nervous System (CNS), "the ancient mystics may have had something when they attributed effects of meditation to the pineal gland. Plate 55 (page 88) of *Tantra Asana* (Edited and

compiled by Ajit Mookerjee, pub. Ravi Kumar; Basel, Paris and New Delhi, 1971) shows a leaf from a seventeenth century Kashmiri tantric manuscript:

"A female figure illustrating (the 9 + 9) position of Amritakala [the times of immortality, literally], which have to be energized on respective dates of the white and dark halves of the month for successful tantric asanas. The eighteen (9 + 9) focal centers in the female body mentioned in the Ratirahasva can be excited by the adept when harmonized with the exact location of the chandrakala on the respective days of the white as well as the dark halves of the month."

This quote shows the relationship between the pre-Vedic and Indo-Iranian immortality teachings and phases of the moon. The planetary Moon and the "inner moon" are linked by the doctrine of signatures or sames; they share a common essence, exert a common influence. The lunar month is specifically divided into 9 special days in both the waxing and waning halves, a cycle composed of 18 days in all. There is a striking correspondence (first noticed by Dr. Charles Muses) between the two-fold cycle of lunar phases each month and the hypernumber w , a lunar elliptic orbit function developed by NASA for the space program.

This hypernumber w and its phases of the elliptical orbits provide the only available mathematical paradigm corresponding to the anomalies distinct to the waxing and waning lunar fortnights. This striking relationship indicates that, during pre-Vedic periods, a system of highly developed sets of mathematical descriptions existed for the movement of the moon about the earth, or at least their psychic equivalent.

Hyperdimensional mathematics is a system or field developed to encompass a body of complex universes. An example is the hyperdimensional number "i" which is the square root of -1. The square root of -1 has several solutions, some of which are applicable to the physical world, some which are not. These non-physical solutions relate to other universes. These worlds are created primarily to solve problems not solvable in the physical world.

The hypernumber w has the remarkable property that, when multiplied successively by itself, all the resulting numbers lie on a certain ellipse. The numbers resulting from multiplying the square root of w successively by itself also lie on the very same ellipse; exactly twelve distinct points are generated by these processes.

There are three principle irregularities in the lunar orbit that have been known since Ptolemy of Alexandria. They were rediscovered by the famous 16th century astronomer, Tycho Brahe, a student of Kepler. These irregularities together furnish a set of eight places in the lunar orbit where these reflecting configurations of force are maximum. These places map on the eight points furnished by the integer powers of the hypernumber w . W was conceived by 20th century mathematicians to describe these very irregularities of the lunar orbit.

This seems to indicate that the pre-Vedic periods had mathematics or intuitive observations which counter some of our most advanced concepts in mathematics today. It is also known that the various phases of the moon affect a number of biological cycles. Therefore, it is now possible to adapt these equations to the meditative process of the (9 + 9) phases of the

moon. This Tantric tradition for maximal absorption of soma, using these points in the lunar cycle, leads to the immortality of the soul.

There are fundamental points which are important in the lunar tradition. First quarter to the Full Moon is generally related to unstable mental states. The first quarter and the Full Moon are when most magical rituals are practiced, as energy is building and culminating. Only very rarely does one use a waning moon, preferring a waxing moon for ceremony. A waning moon generally symbolizes soma going into the body. Waxing indicates energy coming out of the body, through some form of expression. Waning periods, then, are generally when one meditates and absorbs energy. Waxing periods use that energy as an expression, in Magick for invoking a given archetype, or god-form, such as the higher self.

Spiritual regeneration also occurs during certain phases of the moon. Even today, the ascending and descending nodes of the lunar orbit are termed the Dragon's Head and the Dragon's Tail. This dragon is a time-honored symbol for the goddess, the Great Mother. The time intervals taken by the moon in returning to its given node is termed the Dragonic month even in modern astronomy. The ancient Indo-Iranian lunar traditions ascribe the "holiest power" of the month to the dark of the moon. In terms of this tradition, the soma (energy for spiritual regeneration) most fully saturates the earth during the waning moon, when the "invisible" (or higher) light is brightest. The new moon is the period when the Sun and Moon are in conjunction. This symbolizes the alchemical Coniunctio, or Divine Marriage.

At its dark phase, the moon is conjoined with the sun itself, even though we see only a dark moonless night. This is possible because the relative distances of sun and moon make the size of their visible disks the same size; the light of the sun washes out the reflected moonlight. At this point the moon psychophysically effects our central nervous system the most. In both traditions, the pre-Vedic and Indo-Iranian, the dark of the moon is associated with maximum life elixer flow. The waning or putrifying, fertilizing moon, culminated in the dark of the moon was associated with the male powers. The waxing or gestating form of moon was associated with female powers. In this model, waning moon is masculine; while waxing is feminine -- though in other systems the active is masculine while the passive phase is considered feminine.

Through this meditation and absorption of soma, the mystical or Diamond Body (created by harmonization of male and female principles), may be built up for consciousness to inhabit as a spiritual vehicle. The soul becomes refined and finds unity with Spirit. This occurs via the image. In Tantra, this imagery was associated with the female partner, as representative of various forms of the goddess, Shakti. Through correspondences with Tarot and the paths of the Tree of Life, we can incorporate western imagery into this meditation.

The pre-Vedic technique was designed as a system for achieving immortality. This exercise is also known as Circulation of the Light. The meditation exercise is designed with this circulation, or exchange between the masculine and feminine poles, as the central focus. Indo-Iranian immortality teachings state that growth of the higher body during life allows full consciousness to remain even after physical death. They divided the lunar month into

nine special days in both waxing and waning halves. These divisions are identical to the equation and solutions of the hypernumber "w": 9 + 9 going to 18.

As with everything, there are certain guidelines which must be practiced in order to obtain the maximum benefit. These rules approximate amplification of hypernumber w solutions or lunar phase points.

RULE 1: The first day after the full moon is session one. The day after the full moon begins the cycle of this meditation exercise.

RULE 2: The Outline

Session	1	2	3	4	5	6	7	8	9
Waning	1	2	3	5	7	8	9	11	13
Waxing	15	17	18	20	22	23	24	26	28

RULE 3: Face west during waning meditation periods.

RULE 4: Face east during waxing meditation periods.

RULE 5: If a session is skipped, do not omit sessions 1, 4, 5, 8 and 9 each fortnight. This holds for both the waning and waxing periods.

RULE 6: If for some reason the cycle is interrupted for some time, resume Session One of each fortnight.

RULE 7: Full Moons which occur between midnight and dawn are considered to occur one day earlier than the calendar date. (Example: if the full moon occurs this morning at 3:00 a.m., then start Session 1 today).

RULE 8: It is best to meditate at Sunrise.

RULE 9: There is a special resonant peak which occurs after the 13th lunar cycle and six sessions (one year and three months after onset).

If one does these meditations correctly, as in the Indo-Iranian periods, one may theoretically achieve immortality with this soma that is pouring into the body. This is the formula for immortality of the soul, according to the pre-Vedic traditions.

The table listing the sessions and the days is more or less self-explanatory. You do not do this meditation *every* day, but *only* on the days indicated. Returning the attribution of a deity via imagery is paramount to attaining full benefit from the sessions as outlined. To incorporate this meditation practice into the tradition of QBL, we have corresponded the Session with appropriate paths of the Tarot. This may be extended by employing the corresponding colors, incense, herbs, etc.

The key imagery for the nine sessions of the waning fortnight are as follows:

1. Session One, XXI, THE UNIVERSE

The first session rekindles the flame of inspiration. One chooses voluntary rededication to the work of the soul, the Great Work. *Rededication* is returning attention to archetypal

processes, attention is equivalent to worship. This reorientation is attained through perseverance in the use of the creative imagination. It produces synchronization of the body, mind and emotions.

2. Session Two, XX JUDGMENT/AEON

This session is designed to develop *access* to the contents of the unconscious. This resurrection or remembering of preconscious information is involved with one's modes of perception. An access state involves a broadened field of perception, where one sees through the metaphorical presentation to the archetypal core of situations.

3. Session Three, XVIII, THE MOON

This session provides the *power* to remold or reprogram the emotions and beliefs in the subconscious mind. The cerebellum has the power to initiate profound changes in the body, the organ-I-zation. It can create a stabilized center or homeostasis. This is an important time to record dreams.

4. Session Four, XIII, DEATH

One *prepares for freedom*, for the time when the physical body is no longer an appropriate vehicle, by building the diamond body. Entry into the subtle body is more easily achieved at this time each month. Temporary separations between super-physical and the physical body are possible by the Magickal exercise known as "rising on the planes." Death may be viewed as a profound change in one's old conception of personality. The responsibility is to re-vision oneself able to move consciousness into the mystical body. Kali is worshipped in the cremation grounds symbolizing burning away of the dross which inhibits spiritual progress.

5. Session Five, XIX, THE SUN

This session is one of uncompromising self-analysis and inner *honesty*. Through examining your innermost heart, you may align your physical, mental and spiritual goals. Enlightenment or solar consciousness consists of perpetual conscious observation of the imaginal life: behavior fantasies, dreams, thoughts, emotions, etc. This session, like the first, is linked with the two following ones, in an operation group of three.

6. Session Six, XV, THE DEVIL

The power that flows now enables us to bridge intellect and profound intuitive insight. From this marriage, genius is born. This path connects the logic of Hod with the intuition of Tiphareth. It may be viewed as a test of one's personal *integrity*.

7. Session Seven, XVII, THE STAR

This third session of the group of three confers the power of clairvoyance, clearness of *vision*. Insight is possible through cultivation of the subtle senses. Creative imagination (consciousness cooperating with subconscious) leads, via Netzach, or Aphrodite, to growth and artistic inspiration.

8. Session Eight, XIV, ART/TEMPERANCE

This session pre-figures the victorious and fully-conscious transcending of physical death. The keywords are *immortality* and *liberation*. This is the climax session of the waning phase. Climax, in Greek, means "ladder." It is precisely use of sexual climaxes as a ladder for

mystical attainment that is fundamental to the practice of Tantra or sex magick. There is value in the ascending and descending of the soul upon this ladder; building up and holding off are inherent in this sense of the word. A "climax" does not prioritize the orgasm, per se. As Crowley said, "Be strong; then canst thou bear more joy." This day is superior for doing Middle Pillar Exercise, or invocation of the Holy Guardian Angel. These forms of building the diamond body create a liberating paradigm for immortality. Soma is distilled into the alchemical *elixer vitae* via sex magick, regenerate love. The return of these sex magick procedures to the QBL tradition has been responsible for the resurgence of vitality in the western tradition.

9. Session Nine, IX, THE HERMIT

Mercury, as Logos and Phallus, *preserves* both the Light and Life. As "messenger of the gods," Mercury fosters multiple perspectives. The union of opposites of Session 8 necessitates tolerance. Remember the virtues of silence and secrecy. Persevere in the meditations without lust of result. You may wish to observe a day of ritual silence. This session consolidates the development gained so far.

This concludes the sessions of the waning, or male fortnight. During the sessions of the waxing, or feminine fortnight, the priestess becomes the living representative of the lunar goddess.

1. Session One, XVI, THE TOWER

The waxing moon has to do with physical expression, dynamic engagement. It produces an influx of energy which yields increases in health, vitality and effectiveness. Ares marshalls in discipline in the physical body. Physical discipline, such as yoga or martial arts, improve breathing, tone, vitality, disposition, etc. Dynamic engagement with life could be corresponded with Horus. The keywords for this session are *engaging light*, or *tuning in*. Since *Pe*, the Hebrew letter for this path, means "mouth," it is a good time to formulate and declare one's oath. Speaking ability is enhanced at this time.

2. Session Two, IX, THE HERMIT

This is a period to link the conscious functions with the unconscious (i.e. Tai Chi). In the eastern traditions, monks were trained in martial arts to connect body movement with meditative awareness and control. Every motion is motivated by archetypal patterns, producing a state of *connection to power*. This type of total involvement develops patience and lends an increased ability to meditate.

3. Session Three: XVIII, THE MOON

In this session the physiological benefits of meditation are incorporated into the body. Unconscious processes have the power to effect change in such functions as the heart, digestion, kidneys, ductless glands, and the brain. Circulation of the Light has a psychological healing effect which influences the cerebellum via symbolism. The keyword is *doing better than I know*.

4. Session Four: XIII, DEATH

This session represents the perpetual movement of creation, destruction and renewal. It is the time for shedding unwanted or hindering desires, patterns, situations, or habits as old

skin is shed. For those who "die daily" every morning is a resurrection, awakening soul to new possibilities. The beginnings of victory lie in proper *reevaluation*.

5. Session Five: XX, JUDGMENT/AEON

To facilitate transmutation, this session is aimed at outer and inner *cleansing* and *purgation*. Medicines, herbs, and baths are most effective now. Review your journal and conscientiously examine your thought processes and motivations. Once the accumulation of body wastes are metabolized, there is a surplus of energy for living out spiritual principles.

6. Session Six: XVII, THE STAR

The love power now enters and transfuses the body until it begins to literally shine. The image of a beautiful naked woman is the shining vision which presages individuation. Grace pervades all event formation. The refining power of love is the key to eternal youth. Refinement, or *clarification* is linked with discernment.

7. Session Seven: X, WHEEL OF FORTUNE

Health, luck and power are absorbed during this period. Beneficent Zeus bestows his gifts, enabling you to complete difficult tasks or overcome obstacles. Be alert for opportunities. The key word is *extra power*.

8. Session Eight: XIV, ART/TEMPERANCE

This is the key session of the waxing phases and is used to help the body and outer life with "power for accomplishing." This is not the power to fulfill desires, but to fulfill one's True Will. This is the power that confers harmony with one's environment. It is truly a blessing. Grace descends, via the activated Middle Pillar, through the imagery of the Holy Guardian Angel. Participate freely in an internal dialogue. In this Knowledge and Conversation is equilibrium that is the *consummation* of the Royal Marriage of the Sun and Moon. This fusion generates the internal union of subject and object; consciousness and being merged into bliss. In alchemy, this state is known as the *Unus Mundus*, or One World, where there is no separation of an act from its significance.

9. Session Nine: XXI, THE UNIVERSE

This final session of the waxing fortnight is a grounding session. The position of the ego in the psychic economy is realized. The ego realizes its subordinate position to the Self. As the keyword is *preservation of achievement*, we might recall Vishnu, the Preserver. The role of Saturn in the preservation of tradition is also fundamental.

*

The Banishing Ritual and Middle Pillar Exercise enhance any of the sessions. They are useful in calming the mind and focusing attention. They clear the confusion of psychic imagery away and prevent distraction. Then one psychological state may be differentiated.

There are a few extra hints that might be of help:

- a). If you should find it necessary to interrupt this cycle, try to do it after a session #9, and preferably after a session #9 of the waxing fortnight.
- b). The time used for these meditations is totally arbitrary. Use as much time, or as little time, as you feel necessary. On the average, 10 to 15 minutes a day is a realistic goal; focus attention on an image or god-form.
- c). No matter what the meditation time is, dedicate that same amount of time each special day specifically to this exercise. Cultivate consistency to improve your ritual practice.
- d). The Spring Equinox is a fitting time to commence the resonance meditations. There are certain harmonics which are struck with the Solar cycle.

INTRODUCTION TO ALCHEMY IN JUNGIAN PSYCHOLOGY

and, Alchemical Imagination: Making Psyche Matter

by Iona Miller, 1986

Prepared as a class for Spring Quarter 1986, Rogue Community College. This class provided feedback and interaction which fed into my Phanes Press book, *THE MODERN ALCHEMIST: A Guide to Personal Transformation*, Miller & Miller (1994), covering both therapeutic healing and spiritual development through a series of alchemical plates from the *Book of Lambspring*, as a typical metaphorical process. Alchemy is much more than the historical predecessor of metallurgy, chemistry and medicine -- it is a living form of sacred psychology. Alchemy is a projection of a cosmic and spiritual drama in laboratory terms. It is an art, both experiential and experimental. It is a worldview which unifies spirit and matter, Sun and Moon, Yang and Yin.



Jung spent the better part of the end of his life studying the subject of alchemy, which has been called the search for the godhead in matter. In typical "Jungian" style, his interest in alchemy developed from a vivid dream about an ancient library full of arcane books. Later, after much searching, Jung came to possess such a library. Alchemy reflected in symbolic form the same sorts of imagery Jung saw in his practice in neurosis, psychosis, dreams and imagination. Jung insisted that the psyche cannot be understood in conceptual terms, but only through living images or symbols, which are able to contain paradox and ambiguity. Alchemy reflects the process of personal transformation in the metaphor of transmuting base metals into gold.

Jung was amazed to find that the images and operations he encountered in the old alchemy texts related strongly to his theories of psychoanalysis and the unconscious. Therefore, his main research project at the culmination of his career was around this topic of alchemy and how it related to the dynamics of consciousness. Jung saw in alchemy a metaphor for the process of individuation, and the morphing and mutating imagery of that process which emerges from the stream of consciousness. Alchemy can also be viewed as a system of self-initiation. Jung often turned to the images of alchemy, mythology and religion to help describe psychic life. For an image to be a living symbol it must refer to something that cannot be otherwise known.

Jung elaborated most of his alchemical analysis of the psyche in three major volumes of his *Collected Works*. They include *Alchemical Studies, Psychology and Alchemy*, and his final volume *Mysterium Coniunctionis*. Since the publication of these there have been other works of alchemical interest produced by notable Jungian analysts. Among these are the following 2nd generation Jungians: 1). Foremost are the works of Marie-Louise vonFranz, who wrote *Alchemical Active Imagination, Projection and Recollection in Jungian Psychology, Number and Time*, and *Alchemy: An Introduction to the Symbolism and its Psychology*, to name but a few. 2). Edward Edinger has given us the classical text, *Ego and Archetype*, plus *Anatomy of the Psyche*.

Other contributors include Henry Corbin with *Spiritual Body and Celestial Earth*, on Arabic alchemy, M. Esther Harding's *Psychic Energy*, Robert Grinnell's *Alchemy in a Modern Woman*, and Edward Whitmont's *Psyche and Substance*. A 3rd generation has arisen in depth psychology which considers imagination or 'the imaginal' to be the primal reality. Essentially unknowable, it can only be experienced through images by which it is expressed. It draws constantly on ancient elements of psychic life, which still abound in the modern world, such as ritual, gods and goddesses, dreams, alchemy and possession as well as aesthetics, etymology, humor, sensuality, poetry, etc. James Hillman has written extensively on Anima Mundi in *Spring, the Journal for Archetypal Psychology*, and it has many alchemical articles such as "Silver and the White Earth."

Then there are the classical texts of alchemy, themselves, of course. There is a vast array of alchemical texts, with staggering varieties of ways of expressing the alchemical process, psychologically and experimentally. Many of them curiously contain homologues of the magic mushroom *Amanita muscaria*, (see Clark Heinrich's *Forbidden Fruit*). Among these texts are *The Book of Lambspring, Aurora Consurgens, Codicillus* (by Raymond Lully), *Splendor Solis, Theatrum Chemicum*, and the *Alchemical Writings of Edward Kelly. Liber Azoth* and *De Natura Rerum* (among others) by Paracelsus are foundational. Other classics include *The Chymical Wedding of Christian Rosenkrutz* and *Rosarium Philosophorum* which Jung used to illustrate his

work *The Psychology of the Transference*.

Finally, there are the modern translations of older works by A.E. Waite which include *Turba Philosophorum*, *The Hermetic Museum*, *Lexicon of Alchemy*, and *The Hermetic and Alchemical Writings of Paracelsus*. Even newer are the compendiums such as *The Secret Art of Alchemy* by Stanislaus Klossowski De Rola and *Alchemist's Handbook* by Frater Albertus. There is a whole catalogue of astute alchemical literature available from Phanes Press, including in particular those with commentary by Adam McLean, such as *The Alchemical Mandala*, *Splendor Solis*, and *The Chemical Wedding of Christian Rosenkreutz*. Another Jungian contribution is Eliade's *The Forge & the Crucible*. For lesser known treatises, Jung's bibliographies are a gold mine. Jung wrote the foreword to the Taoist classic on alchemy, *The Secret of the Golden Flower*.

Most of us, unfamiliar with the subtle nuances of alchemical practice, view it as the historical predecessor of our modern sciences, like medicine, chemistry, metallurgy, etc. But, according to Jung's research, it seems to be much, much more. It is a curious fact that there is no *single* alchemy for us to examine. It is a cross-cultural phenomenon which has been practiced in various forms by ancient Egyptians, Greeks, Romans, Christian Europeans, and the Islamic, Hindu, and Taoist faiths. All of these use symbols to depict a process of transformation, whether this process is thought to occur inside (introverted) or outside (extroverted) of the human body. Although there are many types of alchemy, the main split is between intro- and extroverted forms. The deciding factor is the *direction* of the practitioner's creativity.

In his book, *The Alchemical Tradition in the Late Twentieth Century*, Richard Grossinger summarizes the basic components of the different alchemical paths, which he dubs 'planet science.' These include the following:

1. A theory of nature as made up of primary elements.
2. A belief in the gradual evolution and transformation of substance.
3. A system for inducing transmutation.
4. The imitation of nature by a gentle technology.
5. The faith that one's inner being is changed by participation in external chemical experiments.
6. A general system of synchronistic correspondences between planets, colors, herbs, minerals, species of animals, signs and symbols, parts of the body, astrological signs, etc. known as the Doctrine of Signatures.
7. Gold as the completed and perfected form of the metals, in specific, and substance in general (Alchemy is the attempt to transmute other substances into gold, however that attempt is understood and carried out).
8. The existence of a paradoxical form of matter, sometimes called The Philosopher's Stone (the Lapis), which can be used in making gold or in brewing elixirs (*elixir vitae*) and medicines that have universal curative powers (*panacea*).
9. A method of symbolism working on the simultaneity of a series of complementary pairs: Sun/Moon, Gold/Silver, Sulphur/Mercury, King/Queen, Male/Female, Husband/Bride,

Christ/Man, etc.

10. The search for magical texts that come from a time when the human race was closer to the source of things or are handed down from higher intelligences, extraterrestrials, guardians, or their immediate familiars during some Golden Age. These texts deal with the creation or synthesis of matter and are a blueprint for physical experimentation in a cosmic context (as well as for personal development). They have been reinterpreted in terms of the Earth's different epochs and nationalities.

11. In the Occident, alchemy is early inductive experimental science and is closely allied with metallurgy, pharmacy, industrial chemistry, and coinage.

12. In the Orient, alchemy is a system of meditation in which one's body is understood as elementally and harmonically equivalent to the field of creation. (Between East and West, the body may be thought of as a microcosm of nature, with its own deposits of seeds, elixirs, and mineral substances).

13. Alchemy is joined to astrology in a set of meanings that arise from the correspondences of planets, metals, and parts of the body, and the overall belief in a cosmic timing that permeates nature.

Thus, alchemy deals fundamentally with the basic mysteries of life as well as with transcendental mysticism. But its approach is neither abstract nor theoretical, but experimental, in nature.

Just who were the alchemists, and why are their contributions important to us today? The alchemists were the leading explorers of consciousness in medieval times, and their research led to a vast improvement in the conditions of life. Among the more famous are Albertus Magnus, Paracelsus, Nicholas Flammel, and Sir Isaac Newton. Their contributions not only improved the lives of their contemporaries, but influenced the thought of many philosophers of the same and later eras, such as Meister Eckhart, Thomas a Kempis, John Dee, Johannes Kepler, Thomas Vaughn, Bishop Berkeley, Emanuel Swedenborg, William Blake, and Goethe.

The contribution of these eminent alchemists are staggering: Albertus Magnus, alone, wrote eight books on physics, six on psychology, eight on astronomy, twenty-six on zoology, five on minerals, one on geography, and three on life in general from an Aristotelian point-of-view. He was a Dominican friar who was canonized a saint in 1931. Paracelsus was a Swiss born in 1493. His accomplishments were many and include being the first modern medical scientist. He fathered the sciences of microchemistry, antisepsis, modern wound surgery, hypnosis and homeopathy. He wrote the first medical literature on the causes and treatment of syphilis and epilepsy, as well as books on illness derived from adverse working conditions.

Even with his accurate scientific bent, his work is also in close accord with mystical alchemical tradition. His was a worldview of animism, ensouled and infused by a variety of spirits. He wrote on furies in sleep, on ghosts appearing after death, on gnomes in mines and underground, of nymphs, pygmies, and magical salamanders. invisible forces were always at work and the physician had to constantly be aware of this fourth dimension in which he was moving. He utilized various techniques for divination and astrology as well as magical amulets, talismans, and incantations.

Paracelsus believed in a vital force which radiated around every man like a luminous sphere and which could be made to act at a distance. He is also credited with the early use of what we now know as hypnotism. He believed that there was a star in each man, (Mishlove). This sentiment was echoed by 19th century magician and alchemist, Aleister Crowley, who said, "Every man and every woman is a star." This alludes to the essential Self, but is also literally in that our elements were forged in some distant supernova.

Kepler developed the laws of planetary motion. But he developed his theories on the basis of explorations into the dimly lit archetypal regions of man's mind as surely as on his mathematical observations of the planetary motions. He was clearly a student in the tradition of earlier mystic-scientists such as Pythagoras and Paracelsus. Thomas Vaughn, Robert Fludd, and Sire Frances Bacon number among the 17th century Rosicrucians who practiced not only alchemy but also other hermetic arts and the qabalah.

Sir Isaac Newton (1642-1727) was a mathematical genius, as well as one of the greatest scientists who ever lived. He discovered the binomial theorem, invented differential calculus, made the first calculations of the moon's attraction by the earth and described the laws of motion of classical mechanics, and formulated the theory of universal gravitation. He was very careful not to publish anything which was not firmly supported by experimental proofs or geometrical demonstrations; thus he exemplified and ushered in the Age of Reason.

However, if we look at Newton's own personal notes and diaries, over a million words in his own handwriting, a startlingly different picture of the man emerges. Newton was an alchemist though after his death his family burned many of his arcane manuscripts in an attempt to hide the fact. He devoted himself to such endeavors as the transmutation of metals, the philosopher's stone, and the elixir of life. He was intensely introspective and had great mental endurance. He solved problems intuitively and dressed them up in logical proofs afterwards. He, himself, was astounded by the startling nature of his own theories. Gravity is a problem that still hasn't been dealt with satisfactorily by scientists.

His followers, however, emphasized exclusively his mechanistic view of the universe to the exclusion of his religious and alchemical views. In a sense, their action ushered in a controversy in psychical research which has existed ever since. Since Newton's time, all discoveries suggesting the presence of spiritual force which transcended time or space were ironically considered to be a violation of Newton's Laws -- even though Newton himself held these very beliefs!

It is interesting to note, that today scientists actually can turn small amounts of lead into gold through particle acceleration, since they are only one atomic weight apart, but the energy expense is prohibitive. Despite the advances in science, the "unknown" is still projected into the realm of matter, and the alchemical quest continues. Science is still debating over what is physical, what is psychic and what is metapsychic. VonFranz, in *Projection and Recollection in Jungian Psychology*, states that "In Western cultural history the transpsychic has been described sometimes as "spirit" sometimes as "matter." Theologians and philosophers are more concerned with the former, physicists with the later." Since the dawn of the 21st century, many physicists openly speak of the spiritual nature of Reality, especially in the quantum realm -- the microcosm and foundation of the macrocosmic world.

VonFranz points out that "what was once regarded as the opposition between spirit and matter

turns up again in contemporary physics as a discussion of the relation between consciousness (or Mind) and matter." It bears on such questions as the bias of the observer, and the theories of relativity, probability, synchronicity, non-locality, not to mention the whole field of parapsychology. Multidisciplinary studies such as quantum consciousness, quantum chaos and quantum cosmology have manifested Jung's prescient vision. Jung really returned us to the alchemistic viewpoint when he said, in *Aion*,

"Sooner or later nuclear physics and the psychology of the unconscious will draw closely together as both of them independently of one another and from opposite directions, push forward into transcendental territory. ...Psyche cannot be totally different from matter for how otherwise could it move matter? And matter cannot be alien to psyche, for how else could matter produce psyche? Psyche and matter exist in the same world, and each partakes of the other, otherwise any reciprocal action would be impossible. If research could only advance far enough, therefore, we should arrive at an ultimate agreement between physical and psychological concepts. Our present attempts may be bold, but I believe they are on the right lines." (Jung).

As vonFranz notes, "There is therefore no concept fundamental to modern physics that is not in one degree or another a differentiated form of some primordial archetypal idea." These include our concepts of time, space, energy, the field of force, particle theory, and chemical affinity.

Laws in physics are subject to scientific revolutions and there has been a major breakthrough in paradigms shifts about every 20 years, or each generation. One of the most influential recently is Complexity or Chaos Theory. VonFranz says, "As soon as an archetypal idea that has been serving as a model no longer coincides with the observed facts of the external world, it is dropped or its origin in the psyche is recognized. This process always coincides with the upward thrust of a new thought-model from the unconscious to the threshold of consciousness."

This is basically the process of weeding out "scientific errors." "...scarcely a thought is given to what they might mean, psychologically, once they are no longer fit to serve as a model in describing the outer world." This certainly happened to alchemy, until Jung revived an interest in it.. "It is only today, when we know that the assumptions of the observer decisively precondition the total results, that the question is becoming acute." Physicists have become increasingly conscious of the extent to which psychological circumstances influence their results. This "hard problem" of the subjectivity of our personal experience is the crux of consciousness studies and a sticking point in all neurologically-based descriptions of brain-mind dynamics, whether it is based in the quantum, holographic, electromagnetic, or chemical interactions.

Other experimental-minded persons have sought the mysteries of life and divinity within their own bodies, since ancient times. Some employed entheogenic plants and elixirs, while others manipulated the paradoxical switch of the sympathetic and parasympathetic arousal systems through yoga or magick. Whether known as Yogis or Adepts, their goal was basically the same, as we shall see.

Some modern schools of the Hermetic Arts see an identity between medieval European alchemy and the eastern practice of Yoga. They see a metaphysical or symbolic correspondence between the planetary and metallurgical attributions of alchemy and the chakras. Yoga is also experimental in nature; the experiment is performed on oneself. The qualities of the metals correspond to the planets and chakras as follows.

Lead	Saturn	Sacral Plexus
Iron	Mars	Sexual Ganglion
Tin	Jupiter	Solar Plexus
Gold	Sun	Cardiac Plexus
Copper	Venus	Pharyngeal Plexus
Silver	Moon	Pituitary Body
Quicksilver	Mercury	Pineal Gland

Alchemy is not concerned exclusively with consciousness, but also seeks the subtle transformation of the body, so that the physical level is also brought into perfect equilibrium. Thus, the alchemical metals may be considered analogous to the chakras of the yogis. We can draw another parallel among the three major principles of alchemy and those of Yoga, which are known as the Gunas.

Mercury.....Sattva
Sulphur.....Rajas
Salt.....Tamas

The quality of Mercury is vital and reflective; it equates with the spiritual principles of goodness and intelligence; Sattva guna is illuminative. The quality of Sulphur is fiery and passionate like the principles of Rajas, which incites desire, attachment and action. The quality of Salt is arrestive and binding, and reflects the gross inertia of matter, which is much like Tamas. These gunas and the three alchemical substances symbolize spirit, soul and body. Another "alchemical" way the gunas were applied concerns food: sattvic foods incline one toward meditation and the spiritual life (fruits, vegetables, nuts, and grains); rajasic foods are stimulating (i.e. spicy food); tamasic food incites the baser instincts (animal flesh).

The concept of four basic elements, harmonized in a fifth, is also common to both alchemy and yoga doctrines. The Indian elements are known as Tattvas. They are: Akasha (quintessence); Tejas or Agni (fire); Apas (water); Vayu (air); Prithivi (earth). Furthermore, the preparation for the practice of both alchemy and yoga requires a moral or ethical preparation. Both stress that evil tendencies should be overcome while positive virtues are developed. This includes both behavior and the purification of various body centers. The objective is not wealth, but health or wholeness.

Alchemy also speaks of a "secret fire", which is often compared to a serpent or dragon. Here again, we find the correspondence to Kundalini, the serpent-power. Alchemy is performed by the aid of Mercury, the illuminative principle, and the powers of the sun and moon. Both alchemists and Tantrics practice with the essential aid, sometimes sexual, of a mystical sister, the alchemist's *soror mystica* or yogi's yogini, complement of King/Queen, Shiva-Shakti, God/Goddess joined together in the miracle marriage. The yogic system works in three channels in the subtle body. One equates with the sun, another with the moon. They are called *ida* and *pingala*. The third, or harmonizing channel, is known as *sushumna*, and is associated with illumination. The twin serpents twine together and open the third way, as shown in the Cadeusus.

The yogi seeks to arouse the latent power of the Kundalini serpent so it rises up the chakra centers until it opens the third eye of mystical vision and illumination. Alchemists apply slow heat to their alchemical vessel to sublimate and refine the contents therein. The yogis use breath control, the alchemists bellows to control the fire. Interestingly, yogis employ breathing exercises called "breath of fire" and "the bellows."

In summary, the points of correspondence resulting in the alchemical production of a new kind of human being (one made hale or whole) are as follows:

1. Both systems agree that all things are expressions of one fundamental energy.

2. Both affirm that all things combine three qualities: a. Wisdom, *Sattva*, superconsciousness or Mercury; b. Desire, *Rajas*, compulsion or Sulphur; c. Inertia or *Tamas*, darkness, or Salt.
3. Both recognize five modes of expression: *Akasha*, Spirit or the quintessence; *Tejas* or *Agni*, fire; *Apas*, water; *Vayu*, air; *Prithivi*, earth.
4. Both systems mention seven principle vehicles of activity called *chakras* by yogis, and metals by alchemists.
5. Both say there is a secret force, fiery in quality, which is to be raised from one chakra or metal to another, until the power of all seven is sublimated to the higher.
6. Yoga says 1) *Prana* or *Surya*, sun, 2) *Rayim*, moon, and 3) *Sattva*, wisdom are the three agencies of the work (or *ida*, *pingala* and *sushumna*). Alchemy says the whole operation is a work of the sun and moon, aided by Mercury.
7. Both systems stress preparation by establishing physical purity and ethical freedom from lust, avarice, vanity, attachment, anger and other anti-social tendencies.
8. Both allege that success enables the adepts to exercise extraordinary powers, to heal all diseases, and to control all the forces of nature so as to exert a determining influence on circumstances.

In short, what both alchemist and yogi do is 1). to recognize what goes on in his body, and 2). to use his knowledge of the control exerted over subconscious processes by self-consciousness to form a definite intention that this body-building function shall act with maximum efficiency creating increased vitality. This supercharge of libido then wakens the spiritual vision of the pineal gland to full activity (in some modern interpretations overriding inhibitory mechanisms for the production of endogenous DMT). The Great Work of alchemy consists of stabilizing this vision of Light into a full realization. The by-product is that the body-building power of the subconscious changes the alchemist him/herself into a new creature.

Jung asserted that the medieval alchemists were unaware of the natural process of psychological transformation which went on in their subconscious. Therefore, they projected this process into their experiments as a science of the soul. In other words, they projected an inner process outside of themselves. Had they been more conscious in their intent or more sophisticated in their psychology like the yogis, they would have been more consistently successful at producing the coveted *lapis* or Philosopher's Stone, a sort of "quantum Tantra."

But why is a study of alchemy relevant to our modern lives, even if we have a spiritual orientation? We are not daily occupied with pseudo-alchemical experiments like the alchemists, or are we? In many metaphorical ways we are thinking like alchemists all the time. Also, Jung observed that the dreams of his clients repeatedly stressed the main alchemical themes, especially the conflict and union of opposites. One of the main symbols of reconciliation of this conflict are various mandala forms, present from alchemy to Tibetan Buddhism. The alchemical symbolism is widespread in dreams of modern individuals, and can shed light on these more primitive aspects of our subconscious life. It is important for our understanding of our own unconscious, and how it transcends and subverts us. Plato enjoined us to "Know

Thyself." In *Alchemical Active Imagination*, vonFranz states,

"True knowledge of oneself is the knowledge of the objective psyche as it manifests in dreams and in the manifestations of the unconscious. Only by looking at dreams, for instance, can one see who one truly is; they tell us who we really are, that is something which is objectively there. To meditate on that is an effort towards self-knowledge, because that is scientific and objective and not in the interest of the ego but in the interest of "what I am" objectively. It is knowledge of the Self, of the wider, objective personality."

We could view alchemy as an antique form of psychophysical therapy, which originally had the meaning 'to heal,' and the implication of 'service to the gods.' Psychotherapy basically means service to the psyche, and offers us a way to reconnect with our unconscious, thus experiencing wholeness. It also opens an avenue to increased physical health, since those ailments which remain unconscious often manifest as psychosomatic diseases. Knowledge of alchemy's symbolism can lead us to psychological insight in terms of our own conditions, especially that reflected in dreams.

Alchemy may be carried out as either a physical or mental operation. The Jungian orientation is primarily mental, though it often takes a physical form or expression. For example, you might choose to ritually 'act out' certain aspects of the Great Work in active imagination. The Jungian interpretation that alchemy is a passive and unconscious process comes from a basically mental, or Greek orientation. The type of alchemy that aims at rejuvenation or preserving the physical body is descended from the physically-oriented Egyptian alchemy. The main traditions of conscious, inner spiritual alchemy come mainly from the Islamic and Oriental philosophies.

Jung's original interest in alchemy came from a dream he had of a library filled with arcane tomes from medieval times and the Renaissance. During the next 15 years he spent collecting this library, he learned to recognize the major symbols of the unconscious. He was reading about them in alchemy books and hearing about them in his patients' dreams and fantasies. Their projections recurrently told him of an inner quest, a sealed vessel, the conflict of opposites, a philosophical tree, a fountain of eternity, a golden flower, a Stone, a sacred wedding, etc.

Slowly Jung familiarized himself with their alchemical meaning. Then he, himself, became a living symbol of the healing power of the Philosopher's Stone -- a guide to the depths of the unknown. In his case this power manifested as the ability to heal at the psychophysical level -- in other words, to release any blocks hindering the natural process of growth and transformation. When proceeding in the direction of their individuation his clients' harmony was restored, self-equilibration returned. Jung equated individuation with self-realization. We should be careful here not to dichotomize between "mental" and "physical" too much or we will lose our proper alchemical perspective. Alchemy cannot be reduced to a metaphor of psychological or philosophical transformation -- it requires first-hand experimentation.

Grossinger says that "what Carl Jung recognized was that the stages of the alchemists also corresponded to a process of psychological individuation. The psychic stages were as precise and rigorous as the chemical ones by which they became imagined. Furthermore, they generated a physical and even quantitative terminology for an undiagnosed tension of opposites in the human psyche arising from male and female archetypes, a struggle they sought to resolve

by the creative unity of the chemicals in the Stone." Alchemy sought to unite Spirit (male), and Matter (female) through a Royal Union (coniunctio) to create their synthesis in the homunculus, hermaphrodite, or lapis. This is an alchemical metaphor or version of the generic process of spiritual rebirth.

The entire body of alchemical literature covers many variations on the theme of the Great Work. No single person will ever express all of the operations and symbols described in alchemy, just as no single person ever embodies the totality of the Self. We each have unique experiences of the common roots of humanity or the collective unconscious. Thus, the various operations of alchemy come in different order for the various practitioners. The alchemical writings seem to contradict one another about the evolution of the process. Some claim to have made the Stone and lost it, over and over -- like the elusive revelations of a psychedelic trip. Likewise, in dreams we sometimes find the symbols of the end-product (like a mandala, or flower, or child) appearing at the beginning of the process. They symbolize what is latent and seeks manifestation.

Nevertheless, in both alchemy and Jungian psychology there are classic stages in the process of individuation or personal experience of the unconscious -- psychic milestones. One major recurrent theme in modern dreams is the symbolism of the planets, which correspond with the alchemical metals. These metals, or planets (astrology), archetypes (depth psychology) or Spheres (QBL) can be understood psychologically as the building blocks of the ego, which forms itself from fragments of these divine archetypal qualities. These spiritual principles seek concretization through the unique experience of an individual ego. This links spirit and matter; it comes down to earth.

The sacredness of the Opus, or Great Work, is the central idea behind alchemy. It is a holistic perspective. One must be self-oriented, rather than ego-oriented. The adept is also diligent, patient and virtuous. In other words, in order to create the Stone, you must have that integrative potential within yourself for self-realization -- for becoming whole or 'holy.' It requires an inward seeking, just like the process of individuation. It is a solitary task for no one may follow where you go. But there may be guides who will help inspire your faith and dedication to the task. Others have been to the territory you will explore, but none will accompany you.

The secret of alchemy is that it is a personal journey of transformation, and cannot be explained but only experienced. It is "eating the dish," not just reading about it in an alchemical cookbook. Its effects must be channeled into spiritual growth, for if alchemy is used to gratify personal desire the work is lost. This means the ego gets inflated with its own importance when the real power source lies within the Self. This naturally produces a regression back into an unconscious state, back to the *prima materia*, raw psychic material. The instinctual urge for growth and transformation lies within us. For this urge to be considered evolutionary requires that the ego must cooperate quite deliberately and consciously with the Self. This leads toward self-realization.

The main purpose of the *Opus* is "to create a transcendent, miraculous substance which is variously symbolized as the Philosopher's Stone, the Elixir of Life, or the universal medicine (panacea). The procedure is, first, to find the suitable material, the so called *prima materia* (lead), and then to subject it to a series of operations which will turn it into the Philosopher's

Stone (gold)." (Edinger, 1978).

The First Matter is a homogenous unity of Mercury, Sulfur and Salt. It is therefore 'three,' but can also be expressed as 'four' elements, which are again essentially 'one.' Jung felt that the secret of the psyche was contained in this question of the 'three' and the 'four.' In alchemy it is expressed as the axiom of Maria Prophetessa: "Therefore the Hebrew prophetess cried without restraint: 'one becomes two, two becomes three, and out of the third comes the One as the fourth.'" Today, physicists echo this statement when they call 'plasma' both the fourth and first state of matter (the others being liquid, gas and solid).

In Jungian psychology, the prima materia is the original undifferentiated condition of ordinary consciousness, which is really unconsciousness -- subjective awareness. Mystics of all times have repeated that in the ordinary state we are all asleep or even "dead" to the true Reality. In psychology the four-fold nature of the prima materia is expressed by the four functions which correspond with the alchemical elements: intuition (fire), thinking (air), feeling (water), and sensation (earth). In Jungian theory we have a dominant function and limited access to one or two others, but the fourth function is inaccessible, elusive, maladapted, or hard to integrate. It is what keeps us from "getting it all together." Thus, we are out-of-balance.

Balancing the four functions means achieving an integrated personality, harmony and well-being. This requires undergoing a symbolic process of the union of opposites, which is what both alchemy (and Tantra) and Jungian analysis are all about. Both alchemy and Jungian psychology require a period of depth analysis (solutio) to distinguish the original, undifferentiated contents. The ego learns what part of the personality comes from itself and which parts from the Self. It reflects on its own component parts (subpersonalities) and learns to see itself as a small part of a greater whole, the larger unity of the Self. Edinger says, "The fixed, settled aspects of the personality which are rigid and static are reduced or led back to their original, undifferentiated condition as part of the process of psychic transformation," i.e. back to a state of 'innocence.'

Further, Edinger compares the problem of discovering the prima materia to the problem of finding what to work on in psychotherapy. He gives some hints:

- (1) It is ubiquitous, to be found everywhere, before the eyes of all. This means that psychotherapeutic material likewise is everywhere, in all the ordinary, everyday occurrences of life. Moods and petty personal reactions of all kinds are suitable matter to be worked on by the therapeutic process.*
- (2) Although of great inward value, the primal materia is vile in outer appearance and therefore despised, rejected or thrown on the dung heap. The prima materia is treated like the suffering servant in Isaiah. Psychologically, this means that the primal materia is found in the shadow, that part of the personality which is considered most despicable. Those aspects of ourselves most painful and most humiliating are the very ones to be brought forward and worked on.*
- (3) It appears as multiplicity, "has as many names as there are things," but at the same time is one. This feature corresponds to the fact that initially psychotherapy makes one aware of his/her fragmented, disjointed condition. Very gradually these warring fragments are discovered to be differing aspects of ones underlying unity. It is as though one sees the fingers of a hand touching a*

table at first only in two dimensions, as separate unconnected fingers. With three-dimensional vision, the fingers are seen as part of a larger unity, the hand.

(4) The prima materia is undifferentiated, without definite boundaries, limits or form. This corresponds to a certain experience of the unconscious which exposes the ego to the infinite. ...It may evoke the terror of dissolution or the awe of eternity. It provides a glimpse of the pleroma. ...the chaos prior to the operation of the World-creating Logos. It is the fear of the boundless that often leads one to be content with the ego-limits he has rather than risk falling into the infinite by attempting to enlarge them.

The different operations to transform the prima materia follow as the natural consequences of finding the material to work on. The imagery associated with these operations is profuse and draws from myth, religion and folklore. The symbols for all these imagery-systems comes from the collective unconscious. There is no set number of alchemical operations, just as there is no set number or order to archetypes.

However, certain of the operations seem to recur more often in the literature and experience. We could consider these as the skeletal frame of the alchemical process. Their order switches around also. Edinger lists seven operations which seem to typify the major transformations of the alchemical process. These include: *calcinatio, solutio, coagulatio, sublimatio, mortificatio, separatio, and coniunctio*. Other major operations include *nigredo, albedo, rubedo, solificatio, multiplicatio, projectio, separatio, circulatio*, and more.

We can detail the nature of each of these operations later. For now, it is enough to grasp the overview which is best stated by Jung, himself, in *Mysterium Coniunctionis*: "*...the alchemist saw the essence of his art in separation and analysis [solve or solutio] on the one hand and synthesis and consolidation [coagula or coagulatio] on the other. For him there was first of all an initial state in which opposite tendencies or forces were in conflict; secondly, there was the great question of a procedure which would be capable of bringing the hostile elements and qualities, once they were separated, back to unity again.*

The initial state, named chaos, was not given from the start but had to be sought for as the prima materia. And just as the beginning of the work was not self-evident, so to an even greater degree was its end. There are countless speculations on the nature of the end state, all of them reflected in its designations. The commonest are the ideas of its permanence (prolongation of life, immortality, incorruptibility), its androgyny, its spirituality and corporeality, its divinity and its resemblance to man (homunculus)."

He goes on to point out what this might mean psychologically. We could view it as conflicting drives originating on the spiritual, mental, emotional, and physical levels creating splits in the personality. Jung says that, "*The obvious analogy, in the psychic sphere, to this problem of opposites is the dissociation of the personality brought about by the conflict of incompatible tendencies resulting as a rule from an inharmonious disposition. The repression of one of the opposites leads only to a prolongation and extension of the conflict, in other words, to a neurosis. The therapist therefore confronts the opposites with one another and aims at uniting them permanently. The images of the goal which then appear in dreams often run parallel with the corresponding alchemical symbols.*"

He reiterates the value of accessing the alchemical symbolism for increasing insight.

"Investigation of the alchemical symbolism, like a preoccupation with mythology, does not lead one away from life anymore than a study of comparative anatomy leads away from the anatomy of the living man. On the contrary, alchemy affords us a veritable treasure-house of symbols, knowledge of which is extremely helpful for an understanding of neurotic and psychotic processes. This, in turn, enables us to apply the psychology of the unconscious to those regions in the history of the human mind which are concerned with symbolism."

Each of the operations of alchemy functions as the center of focus of an elaborate symbol-system. Other symbols which are related to the operation cluster around the theme of the operation -- they share a common essence. These central symbols provide basic categories which we can use to understand our own personal psychic life, and even the transformation processes of others. Taken together, the alchemical operations illustrate almost all of the full range of experiences which are involved in the process of individuation.

As Grossinger points out, "Alchemy is thus a form of chemical research into which unresolved psychic elements were projected. The alchemical nigredo, the initial phase of the operation which produces 'black blacker than black,' is also an internal experience of melancholia, an encounter with the shadow."

But this is also the necessary first stage in Jungian analysis -- confronting that which has been rejected or repressed is essential to becoming whole. This realm of the shadow can often provide more real substance for the spiritual quest than mimicking the teachings of a spiritual master without really changing oneself. Though stumbling around in the dark seems frustrating, if it is honest and heartfelt, and one really grapples with the shadow problem, the way is cleared for progress that will be sustained by a firm foundation gained in the early phases.

Throughout the alchemical process, the lapis functions as an inner guide by presenting itself in diverse symbolism. It symbolizes the growing manifestation of your latent potential for wholeness. It frequently manifests in mandala symbolism. This includes such forms as a revolving wheel or the zodiac, the petals of a magnificent flower, or a serpent eating its tail. As a grand union of opposites, it symbolizes the unification of king and queen, man and wife, conscious and unconscious, personality and society, etc. in a royal union called the Marriage of the Sun and Moon in alchemy. Alchemy is a means of understanding our unconscious projections of archetypes into the world.

In "Spiritual Development as Reflected in Alchemy and Related Disciplines," Rudolf Bernoulli summarizes the basics of extroverted and introverted alchemy. He says, "There are two kinds of alchemy: one strives to know the cosmos as a whole and to recreate it; it is in a sense the precursor of modern natural science. It aspires to create gold as the supreme perfection in this sphere...The other alchemy strives higher; it strives for the great wonder, the wonder of all wonder, the magic crystal, the philosopher's stone."

"This is not a substance susceptible of chemical analysis. It does not represent a spiritual or psychological state that can be reduced to a clear formula. It is something more than perfection, something through which perfection can be achieved. It is the universal instrument of magic. By it we can attain to the ultimate. By it we can completely possess the world. By it we can make ourselves free from the world, by soaring above it. This is alchemy in the mystical sense ...The goal

is reached only when a man succeeds in creating the ...stone within himself, and this is made possible only the intervention of the 'inner master.'" i.e. the Self.

Psychologically, the union of body and spirit or of conscious and unconscious can be safely attempted only when both have undergone a purification brought about by the earlier stages of analysis, in which the conscious character and the personal unconscious are reviewed and set in order. (*Psychic Energy*, p. 452-3).

In the alchemistic literature there is evidence that the mysterious coniunctio took place in three stages. The first is that of the union of opposites, the double conjunction, which chiefly concerns us here. The second stage effects a triple union, that of body, soul, and spirit; or, as it is said elsewhere, "the Trinity is reduced to a Unity."

In the *Book of Lambspring*, published in 1625, this triple union is represented first by two fishes swimming in the sea, pictured with the legend, "The sea is the Body, the two fishes are the Soul and the Spirit", and later by a second picture showing a deer and a unicorn in a forest, with the following text:

In the Body [the forest] there is Soul [the deer] and Spirit [the unicorn] ...He that knows how to tame and master them by art, and to couple them together, may justly be called a master, for we rightly judge that he has attained the golden flesh.

The literature offers far less material about this more advanced stage of the work than about the simple coniunctio, and still less about the third stage, the union of the four elements, from which the fifth element, the "quintessence," arises. However, Jung's latest works are largely concerned with the problems of this fourfold coniunctio, through which not only are the personal parts of the psyche -- ego and anima, or ego and animus -- consummated, but these, in a further stage of development, are in turn united with their transpersonal correlates -- wise man and prophetess, or great mother and magician (under whatever names these superordinate elements are conceived). The subject is by no means simple, but it amply repays careful study.

Further definitions and descriptors of the dynamics of alchemy can be found in my book *THE MODERN ALCHEMIST*, (Phanes Press, 1994) which is divided into two major parts, each representing an 'octave' of the famous alchemical dictum, "*Solve et Coagula*":

- I. Metamorphosis of Soul; therapy or personal growth, and
- II. Personification of Spirit on spiritual development.

Chapters in Part I include:

The Prima Materia on Persona, the social mask
The Nigredo on the Shadow, or chaos, depression and inertia
The Union of Opposites, on Anima or the archetypal Feminine
Participation Mystique, on Animus as the archetypal Masculine
Solutio, the operation of liquification and the Adversary archetype
Coagulatio, the operation of embodiment, archetype of the Great Mother
Sublimatio, operation of ennobling, archetype of Wise Old Man
Albedo, Rubedo and Coniunctio, the miracle marriage of opposites

Part II covers the following:

Solificatio, operation of the sun and the Hero archetype

The Philosopher's Stone on the lapis and shamanic Mana Personality

Puer/Senex on the dynamics of youth and maturity, magickal child archetype

The Transcendent Function on the Self or God-Image in the soul

Devouring Father on the conception of divine child

Anima Consciousness on the return of the Feminine and Incubation

Individuation and Rebirth on spiritual rebirth phenomena

Ultima Materia on culmination of the Great Work in the Adept or God-Man/Woman

The Modern Alchemist (1994) by Miller and Miller, is available from Phanes Press or Amazon.com; also through the Theosophical Society, and C.G. Jung Library Bookstores. Profusely illustrated with pen and ink drawings from the original woodcuts, by Joel Radcliffe. Oversize print portfolio of alchemical motifs available from arsobscura.com

[excerpt from *The Holistic Qabala*, Miller & Miller, O.A.K., 1983]

Part 2: ALCHEMICAL IMAGINATION: MAKING PSYCHE MATTER

We should now proceed to find a neutral, or unitarian, language in which every concept we use is applicable as well to the unconscious as to matter, in order to overcome this wrong view that the unconscious psyche and matter are two things.

Professor Wolfgang Pauli

In the alchemical search for the God-head in matter (Kether in Malkuth), Paracelsus contended that matter was a living counterpart of the creating deity. A system of correspondences is the foundation of alchemy. The conception of a primal event manifested in different fields is fundamental to alchemy. The process in the retort vessel is analogous to the process of transformation of the psyche. Through alchemy, we can perceive the parallels between microcosm, universe, and man. Alchemy is based on the assumption that the equation world = man = God is Truth.

The metaphorical perception of alchemy grew a new taproot in the Jungian school of psychology. It emphasizes the process of psychological transformation. This is the Opus, or Great Work of alchemy in one of its contemporary forms, through there are still alchemists who work with elixers, nostrums and potions or in experiments with metallurgy, preferring the concrete form. Alchemy is called the Great Work because that which "works" is that which has the active power to transform. The experiments are performed on oneself.

This experiential act renews the alchemical philosophy which is primarily concerned with the union of psyche and matter. There is an indissoluble unity in alchemy between theory and practice. They are explicate aspects (which are experienced through a metaphorical sensory perception) of the Quest, or attainment of 'immortality' through the union of opposites. Thus, the goal of the Opus is precisely this union, which is known variously as the Philosopher's Stone, Royal Marriage or Unus Mundus (experience of one worldview uniting the psyche/body/spirit).

Paracelsus described alchemy as the voluntary action of man in harmony with the involuntary action of nature. If the center of the creative process takes place in the "heart of man", his intentions take on profound significance. They can now influence the destiny of the cosmos. Attainment of this intentionality is known as the production of the Diamond Body, the stabilization of emergent magical perspectives and abilities. In modern terms, it means out-of-the-box thinking and being, a departure from mundane or ordinary consensus reality, but not in a dissociative or psychotic way -- but in a way that approaches Reality more closely. In modern consciousness studies, it can be likened to quantum consciousness, or a flow state.

Alchemy strives for the experience of spiritual rebirth via the union of opposites, or the sacred marriage. The sacred marriage is characterized as the union of the Sun (+) and Moon (-). These polarized positions may be symbolized variously as positive-negative; yang-yin; male-female; god-devil; spirit-matter; father-mother, etc. The sacred marriage, or coniunctio, creates a bond by which opposites are united in an image which transcends both original potentials. The whole art of alchemy is contained within the image (implicate order) of a magical or divine child.

There is an inherent paradox in alchemy: all the while stressing redemption of the physical

body, or matter, alchemy is actively striving toward creation of a subtle, immortal body, which has no apparent physical basis (magical child = body of light).

This central problem in alchemy is the spiritual redemption of the physical body, which has effectively been cut off from our spirituality in modern life by our culturally-rooted mind/body split. Alchemy requires resurrection of the soul of body. The challenge one encounters in developing and "owning" this fresh worldview is to "see through" to a unified vision of mundane physical processes with spiritual values and vision. This develops awareness of the psychophysical ordering processes inherent in matter -- in our matter. The solution is to visualize the physical body as a living metaphor -- a metaphorm -- for psychic transformation.

For the true alchemist, according to vonFranz (1979),

"...the mystery of the structure of the universe, was in themselves, in their own bodies and in that part of the personality which we call the unconscious, but they would say in the life of their own material existence. ...They thought that instead of taking outer materials you could just as well look inside and get information directly from that mystery because you were it. After all, you too were a part of the mystery of cosmic existence, so you could just as well watch it directly.

Even further, you could ask matter, the mystery of which you consist, to tell you what it is, to reveal itself to you. Instead of treating it like a dead object to be thrown into a vessel and then cooked in order to see what came out, you could just as well take a block of iron, for instance, and ask it what it was, what its kind of life was, what it was doing, how it felt when melted. But since all these materials are within you, you can also contact them directly and in that way they contacted what we would now call the collective unconscious, which to them was also projected into the inner aspect of their own bodies.

*They consulted these powers directly through what they called meditation and therefore most of these introverted alchemists always stressed the fact that one should not only experiment outwardly but should always insert phases of introversion with prayer and meditation and a kind of yoga. With yoga meditation you try to get the right hypothesis, or information, about what you are doing or about the materials. Or you can, for instance, talk to quicksilver, or to iron, and if you talk to quicksilver and iron then naturally the unconscious fills up the gap by a personification. Then Mercury appears to you and tells you who the sun God is. A power, the soul of Gold, appears and tells you who and what it is. (Marie-Louise vonFranz, *Alchemical Active Imagination*, Spring Pub., Dallas, 1979).*

So, we see that basically the dynamic impulses of the original alchemists and modern physicists is the same -- to have a dialogue with matter and to find out all that is possible about how the creative process (God, to some) works.

This Opus, or Work, is understood as taking place in a sealed retort vessel. The nature of this vessel is the original of the common-use term, "Hermetically sealed." This containment insures that none of the ingredients will be lost, and also provides a container in which the contents ("raw perceptions and emotions") are slowly heated, or cooked (calcination). The initial material (prima materia) then goes through several stages of transformation, defined as operations, or experimental stages. Only that which has been *properly* separated can be united.

These are not always presented in the same sequence in alchemical texts. Most, however,

include forms of calcinatio (heating); solutio (dissolving); coagulatio (congealing); sublimatio (ennobling); mortificatio or nigredo (blackening); ablutio (whitening); separatio (separating), and coniunctio (uniting). There are also operations of refinement, circulating, multiplying, and reiterating. Each stage displays typical colors and properties or qualities.

The meditatio, or meditation, consists of inner dialogue with the alchemical figures: Saturn=lead; Luna=silver; Sol=gold; Mercury=quicksilver; Venus=copper; Mars=iron; Jupiter=tin. Because the process of alchemy does not extend into the Supernal Triad of the Tree of Life, it yields Self-Realization, not God-realization. It is a path of immanence, rather than transcendence. This does not exclude transcendence from happening through God's grace, however. Then Kether is in Malkuth, the beginning (prima materia) and end (ultima materia) are paradoxically a co-temporaneous One.

In alchemy, the Anima Mundi, or Soul of the World acts as the soul-guide to the highest region. We experience An-imaginal (anima-ginal) Reality -- the world ensouled as living divinity, consciousness in its material unconsciousness. The putrefying contents of our psychophysical existence are elevated through insight and revisioning to the very means of our rebirth, and the unblocked, clear perception of our existential Reality.

Always remember that the body is of vital importance in any alchemical operation. To transcend somewhere out of the body is not alchemical practice; rather, imagine the body NOWHERE, or now-here, fully present as the psychophysical self and its multi-dimensional holographic projection. Alchemy views our human condition as a psychophysical "Cosmosis," "As Above; So Below", hence we are permeated with and of the same essence and substance as the divine.:

*"...a physiological mythology juxtaposed with a cosmogonic mythology. In between is the psyche itself - the arcane substance, the subject factor - which achieves a personified level in the divinities of mythology. It is the psyche's own image-making activity, its self-creation through symbols, that is central to this model. It represents a process of the "psychization of instinct," the transformation of instinctual and biophysical phenomena into psychic experience. These phenomena can then to a certain extent be brought within the range of conscious will and reason. In this process instinct loses some of its primordial autonomy. It is an opus contra naturam, so to speak. ...Alchemy accordingly gives us a model for the psychology of projection; it points at once "upward" and "downward." It is radically symbolic in its insistence on the "arcanum." And finally, in the obligation it imposed for the careful elaboration of theoria, it included the formation of apperceptive concepts and symbols as a fundamental part of the opus." (Robert Grinnel, "Alchemy and Analytical Psychology", *Methods of Treatment in Analytical Psychology*, Spring Pub., Dallas, 1980).*

We can correspond the alchemist's metals and operations with the spheres of the Tree of Life: The prima materia is the original starting condition of the Probationer or Neophyte; in Malkuth, the earthy sphere one meets mortificatio, putrefactio, calcinatio; The Saturn Path, THE UNIVERSE = lead; which brings us to the lunar sphere, Yesod, and its alchemical attributes of silver and albedo. The mental sphere of Hod or Mercury (quicksilver; Mercurius) is balanced against the emotional sphere of Netzach, Venus (copper; benedictas veriditas); they are joined by the Mars-path, which is clearly rubedo, the "reddening." This path is bisected by the Sagittarian path, ART/TEMPERANCE, which is the formula of Solve et Coagula,

culminating in the solar sphere of Tiphareth (gold, Sol, Lapis, solificatio, Minor Adept; self-actualization). The Mars sphere of Gedulah (Strength) is also linked with iron, while Chesed or Mercy is tin.

We can examine what happens in initiation to the body/soul at the level of Malkuth for example, more closely. The process of alchemical initiation begins with the stage known as mortificatio, or psychological masochism. It means the death of the old personality for the sake of the rebirth of the new renescent form or self-image. It means the disintegration of the conscious personality. It is specifically a spiritual or religious crisis in the life of the individual, where ruling ideas lose their meaning.

Needless to say, this can be a depressing state of being, a loss of meaning. This classical depression is imaged in terms of "blackening" and has, therefore, to do with the Shadow. Depression necessitates a confrontation with one's own shadow, (self-defeating and self-destructive urges and patterns), not only as your personal inherent "evil", but as one's un-lived life also for good. The actual process occurs as pathworking of XXI, The Universe, which corresponds through its Saturn attribute with the nigredo.

To derive pleasure from punishing one's body is a curious pathological image. But, read metaphorically, we can see how we virtually flog our selves in a variety of ways, almost compulsively. We do it through stress, through overwork, through role-bound drives, through "shoulds" and "ought tos" -- we keep ourselves in virtual bondage. At least by mid-life, we ask the classic question of our consumer society, "Is this all that there is?" Our over-developed egos desperately try to maintain control over everything and everyone, but ourselves - and this tendency runs wild in our self-defeating and self-destructive addictions, including escapist consumerism. We are so used to trying desperately to dominate our reality, and what we really need to do is "let go" of our outworn rigidities.

Intuitively we know that the one who dies still in the fast lane with the most toys doesn't necessarily win. We sense there is more to life and long to connect with it, to be reined in by it. The unheroic, self-humiliation and putting ourselves down with negative self-talk, is a form of masochism with a potentially religious aim: to gain forgiveness through a mode of redemption. This dedication to suffering -- to amplifying suffering -- produces meaning, compassion, humility, and healing. But it is an alchemical stage, not a way of life -- not suffering for suffering's sake. It is a discipline of the soul which contradicts the ego attitude, but those with chronic depression seem stuck in this stage, unable to escape the black mood.

Seeking its archetypal background, we see there is a relationship between ritual flogging in initiation ceremonies and the intoxication of masochistic mortification. The same might be said of piercing or tattooing as behavioral expressions of this archetype, finding pleasure in the pain. The participant is entranced, connects with his/her pain, and enters the transformative process through a breaking of boundaries. The combination of humiliation and pleasure and unknownness yields an experience of ambivalence, a primal condition of psyche. It heralds a submission to the divine.

"Mortificatio is a psychological operation, not a moral one. We cannot apply a moral frame of reference to it; it is neither good nor bad, better nor worse. It is a necessary, just-so operation. One alchemical text advises, "Take the old black spirit and destroy and torture it..." Another

philosopher tells us that "The tortured thing, when it is immersed in the body, changes it into an unalterable and indestructible nature." So the operation is necessary, not to make us morally better or spiritually purer, but rather to change us. When we immerse masochistic material in the body of fantasy, psyche and psychic reality become indestructible. The operation is necessary, not for the sake or moral ego-strengthening, but to make hard psychic reality. If we could fully realize this, that mortification is a way into the weighty, heavy matter of the soul, it might help us get past the momentary cringe. For we cringe and shrink at the moment of realization, at the reality of psyche where there is no ego-control, especially in its ugliness or banality." (Lyn Cowan, "On Masochism," Spring 1979, Spring Pub., 1979, p47).

If you can see that the world is beautiful, but have lost the ability to feel that beauty, of course your moods are going to swing from sullen inertia to active despair. The ego feels out of control, and there is seemingly no meaning in life, so why exist at all? You feel fragmented, alienated from yourself. This is the beginning of the work, and a major reason people seek therapy or a mystical path to let go for renewal. When your ego can no longer pursue only its selfish concerns and addictive demands, the Self forces us into a depression to shake up the stagnant order of things. It brings a burning awareness of your shortcomings and inadequacies. To get to the root of these, we need to process old traumas and negative core beliefs that severely limit us. The Self appears on the inner stage as the shadow and confronts us with our inferior traits.

Once we experientially comprehend the purposeful dynamics of the Nigredo, the depression begins to lift. But in order for this happen, we must accept the blackness as our own instead of blaming it on outside situations or other people. Then we begin to discover that it is our own withdrawal and loss of feeling about our own shadow natures that is the source of the darkness. When we turn our attention toward it, we see we are not suffering a mere personal ill, but one with transpersonal dimensions. In other words, this is a plight common to all of mankind, and a milestone on the path of individuation. It is a natural part of development.

[for more on shadow and nigredo, also see my *Modern Alchemist*]

The Nigredo in Alchemy, Path 32

The putrefactio or nigredo represents the rotting stench of decay from the ego's outmoded attitudes and lack of adaptability. It occurs at the time in the life of the aspirant when the strain of the environment or pressure to achieve has become intolerable. In time, the attacked alchemist comes to realize that he must willingly subject him/herself to change.

'Raven's head' is the traditional name for the stage of the process whose technical name is the nigredo. The nigredo is symbolized by multiple references to black substances, and is associated with the Shadow archetype, or repressed contents of the personal unconscious. The nigredo implies a time of anxiety, melancholia, sleeplessness, and restless volatility. This stage of discomfort with the status quo is necessary to initiate the alchemical process -- the dissatisfaction and discomfort turn up the psychic heat. Thus, we see there is an inherent value and meaning in this depression. In our modern world of antidepressants and tranquilizers many people fail to follow this mood toward its positive goal, and despair or become doubly disappointed after the medications begin to fail on them after a time.

Psychologically, we experience in this phase a chaotic state of conflict between hostile psychic

elements. There is a tendency toward regression, helplessness, inertia, or losing consciousness of the motivating factors of behavior. We don't want to do a thing; even rise in the morning; what's the point!? Any emotional response to the situation is practically impossible. We are too numb, too down, too paralyzed. We don't know where to turn if we could. In modern terms, it is equivalent to the concept of psychic dissociation, which is the root of neurosis and psychosis ("falling apart").

There is always psychic suffering when we "fall down." And this is like falling down a psychic rabbit hole, like Alice into a totally unknown, disorienting world. We fall inexorably into a psychic black hole. It is not an adventure, but an abduction into the underworld of the powerful subconscious forces, and they seem to mean us ill, to torture and disempower us, while we are helpless. This suffering may even persist for a lifetime if there is technical blunder in the Work, a failure to respond to its spontaneous call to action. The alchemist must "pick him/herself back up." Then, there will be further transmutations from the instinctive psyche.

This stage corresponds, again, to the encounter with the Shadow. The ego and the Shadow must eventually be reconciled. The restlessness and disorientation are the product of an initial collision between conscious and unconscious factors. This is the beginning of a descent into darkness, or the unconscious.

As long as the psyche struggles in the nigredo, it will be emotionally attached to the literal aspects of any situation. Fascinated by "facts" and the "materialness" or "medicalness" of any condition, the alchemist fails to extract the symbolic aspect which would allow him/her to break through into a fresh mode of perception. Typical manifestations of this stage include long dreams, confusion, and a drained or depressed mental attitude. The symbolic attitude is presented when the nigredo is perceived as part of a mystery process -- a curse with a hidden blessing, or grace at its core.

Missing the point, the eye of the aspirant caught up in the nigredo looks for what is "wrong." It ruminates on such physical questions as, "Is it an organic or neurological problem creating these manifestations of depression in me--is it clinical depression?" It will then propose such treatments as pills, body work, or dance therapy. Grossness casts a veil or cloak of physicality over the subtle body of the alchemist and he fails to realize it is his soul which is sick unto death. The "cure" will not come through antidepressants, tranquilizers, vitamin therapy, geographic escapes, or rejuvenating drugs and cosmetics, or exercise and endorphins.

The elan vital, or life energy has been pulled into the unconscious, leaving the ego frustrated and discontent. The emptiness and sterility of this condition may be the result of placing too much emphasis on "getting it together in the work-a-day world, leaving the soul cut off from the well-springs of life. The feeling of being drained, or over-extended may become so powerful that one is forced into a breakdown which demands the time for introversion and recovery of energy reserves.

The ability to see through to a value in depression (to experience the meaningfulness of the feeling of meaninglessness) has a prognosticative purpose. Attaching meaning to depression allows an emotional participation which unblocks the flow of psychic energy. Depression is not a loss of meaning, but the *feeling* of loss of a sense of meaning. One is reminded of King Arthur during his "wasteland" period, wandering in the wilderness before the finding of the Grail.

There we learn "the King is the land, and the land is the King." And when it comes to the Grail to ask, "Who do these things serve?" Meaning comes through deepening the process.

"This whole experience is like a journey through the wilderness and it often appears in dreams under the symbol of the "Night-sea Journey." But when the problems of the personal unconscious have been met and dealt with in analysis, a sense of inner unity and renewal is usually found. This is often accompanied by glimpses of deeper values, of the Self, for instance, that are frequently couched in the terms of religious symbolism. The analysant feels that he is once again reconciled with himself and with God so he can go back to this ordinary life with renewed zest. The wilderness is no longer barren, his life blossoms and bears fruit." (M. Esther Harding, "The Value and Meaning of Depression," Bulletin for the APC of NY; Analytical Psychology Club of NY, Inc., 1970; p. 10.)

Path 32, connecting Malkuth with Yesod, the Sphere of the Moon (corresponding with dreams), can be the path of renewal which transmutes the alchemist from his sense of confusion and despair.

"Following this state of darkness, the alchemists report that light begins to dawn, due to the rising moon, which psychologically means the beginning of insight gained through paying attention to the unconscious, to the night happenings, to dreams and so on, which throw a light on one's inner condition. The moon also refers to Eros, relatedness through feeling. In other words, when the nigredo, the blackness, has been accepted and taken to oneself, instead of being blamed on outside situations and other people, one begins to see that it is one's own withdrawal and loss of feeling one's own shadow, that is the true cause of darkness. Then the moon rises and in recognizing that one is suffering... that is the feminine eros; the lesser light begins to shine in the darkness of the night." (Harding, 1970).

That moonrise in Qabalistic terms, means access now to the sphere of Yesod, the Moon. The stuckness is over, though other bouts with depression may bring further growth and insight on a higher arc. Further alchemical transmutation will bring one into the warmth of the sun, the greater light, which means there is an increase in the light of consciousness (Tiphareth stage). Thus one traverses astral world or the mystical realms of the Sun (Tiphareth), the Moon (Yesod) and Stars (The Universe).

"And so one meaning of the experience of depression is that our wholeness, or individuation, the Self, can no longer wait while we follow egotistic ways or even seek for legitimate ego fulfillment, and so the Self brings us, drives us, into the wilderness of depression...and communication between earth and heaven is even then about to be revealed to us, if only we will attend to the vision." (Harding, 1970).

It is an experiential journey, this experiment on oneself with the elements of nature. To really "get it" we must do the work to get the benefit. The method works if we do. At this stage we can greatly benefit from watching and participating in our imagery process by entering the stream of consciousness, the dreamtime. Dreamhealing, a form of shamanic dream journeys, also known as CRP (Consciousness Restructuring Process) can be very helpful in this process of letting go and connecting with source, with flow and the well-spring of life.

See my whole body of work on this subject of Dreamhealing at asklepia.org

ALCHEMY BOOKS:

Aion: Research Into the Phenomenology of the Self, C.G. Jung Collected Works
A Study of Chinese Alchemy, Obed S. Johnson
Alchemical Active Imagination, M-L Von Franz
Alchemical Mandala, Adam McLean
Alchemical Medicine, Paracelsus
Alchemical Studies, C.G. Jung
Alchemical Symbols and Secret Alphabets, C.J.S. Thompson
Alchemical Tradition in the Late Twentieth Century, Richard Grossinger
Alchemist's Handbook, Frater Albertus
Alchemy, Franz Hartmann
Alchemy, Child of Greek Philosophy, Arthur J. Hopkins
Alchemy, the Secret Art, Stanislaus Klossowski de Rola
Anatomy of the Psyche, Edward Edinger
Archidoxes of Magic, Paracelsus
Atalanta Fugiens, Joscelyn Godwin, trans.
Aurora of the Philosophers, Paracelsus
Azoth or the Star in the East, A.E. Waite
Coelum Philosophorum, Paracelsus
Collectanea Chemica, Philalethes
Concerning the Alchemical Degrees, Grades & Compositions, Paracelsus
Concerning the Spirits of the Planets, Paracelsus
Cosmic Alchemy, C.C. Zain
Crowning of Nature, Adam McLean
Elixir of Enlightenment, A.H. Almas
Forge and the Crucible, Eliade
Foundations of Newton's Alchemy, Betty Dobbs
Goethe: the Alchemist, Ronald Gray
Golden Game, Klossowski de Rola
Grail Legend, Jung & Von Franz
Hermetic Tradition, Julius Evola
Internal Alchemy: the Natural Way to Immortality, Master Hua-Ching Ni
Jewish Alchemists, Raphael Patai
Jung on Alchemy, Nathan Schwartz-Salant
Mirror of Alchymy, Roger Bacon
Mystery of the Coniunctio, Edward F. Edinger
Orders of the Great Work: Alchemy, M.P. Hall
Origin and Structure of the Cosmos, Robert Fludd
Papers Toward Radical Metaphysics: Alchemy, Charles Ponce
Paracelsus: Selected Writings, foreword by Jung; N. Guterman (Tr.)
Philosopher's Stone, Michio Kushi
Practical Handbook of Plant Alchemy, M. Junius
Preparation of the Sophic Mercury, Philalethes
Psychology and Alchemy, Jung
Quest for the Red Sulphur: the Life of Ibn' Arabi, Claude Addas
Robert Fludd, Joscelyn Godwin
Rosary of the Philosophers, Adam McLean
Science of Alchemy, William W. Westcott
Secret Tradition in Alchemy, A.E. Waite
Secrets of John Dee, James Gordon
Spiritual Alchemy, Mikhael Omraam
Splendor Solis, Godwin, McLean
Understanding Reality: A Taoist Alchemical Classic, Chang Po-tuan, Thomas Cleary (Tr.)

VIRTUAL MAGICK

Speculations on Practice in the Electronic Astral Plane

by Iona Miller, ©1992

Mythical Realism -- Virtual Bodies of Light -- Virtual Sex Magick

We are entering an era of magical technologies which are relevant to the inner world of imagery and imagination. Through Virtual Reality (VR) we can create an electronic representation of typical symbols of the psyche and interact with them.

Even though these images have no concrete existence, they are influential in the process of transformation.

The practice of magick, a sacred technology, normally involves concentrated visualization activity coupled with immersion in the autonomous stream of consciousness. Since much of the training and practice in magick is based on a recipe, formula, or protocol, these could easily be programmed, using virtual reality, to guide an aspirant into a specific state of consciousness. Biofeedback monitoring could enhance that state.

Each virtual world would include a panoply of symbols related to a specific archetype. The aspirant would journey through this world. In the process of positive interaction with these archetypal forms (or perhaps imaginally becoming them), the psyche becomes "inoculated" with their resources. A conscious relationship is fostered. This leads to a greater sense of wholeness and communion with transpersonal energies.

Through the arrival of Virtual Reality (VR) technology, we will soon have access to a fully programmable electronic "astral plane." Magic has always been a sacred technology, and combining it with VR makes for a state-of-the-art practice. In virtual reality, we can create a world which is, in essence or effect, "as good as" normal reality. Through the use of visual, audial, kinesthetic, and olfactory feedback, the experiential (rather than analytical) part of the brain is guided to suspend its disbelief in the synthetic reality.

The realization of a system of interactive fantasy will allow us, as artists or magicians, to shape the experience from the inside. It will allow us to re-shape ourselves, also. A central premise in VR is that you can manipulate your self-representation, or self-image. VR represents a cultural revolution in the way we view reality, nature, art, ourselves, and our relationship with transpersonal powers.

Interactive media will give us the ability to author moving images. When you can put your images in cyberspace, you introduce your own unique content into the experience. Background, or natural imagery, will be texture-mapped for ambiguity. Ambiguity is one key to the engagement of the imagination (Laurel, 1992). Communal virtual reality is also possible for group rituals, but requires a tremendously powerful computer to keep track of all the details which perpetuate a believable virtual space.

The realm of imagination has traditionally been the province of shamans and magicians. More recently, psychotherapists have entered the arena of imagination as guides to the heights and the depths. There are many different styles in the practice of magic from primitive to sophisticated. Magic is the ancient technology for dealing with lost or questing souls, while archetypal psychology is a modern counterpart.

Basically, there are three ways of encountering the inner world, reflecting the state of consciousness of the practitioner: 1). prototaxic mode, a "possession" or trance state where the ego is absent through regression; 2). parataxic mode, which includes art, archetype, myth, dream, and ritual wherein the ego is enthralled; and 3). syntaxic mode, which includes creativity, gnosis, and higher mystical states, where the ego is enraptured and eventually transcended.

Sophisticated magick, or Theurgy, has been practiced in western occultism through the centuries largely by an elite group of eccentric intellectuals. Many of them identified with the Rosicrucians, Masons, Gnostics, or other "hidden" orders. These practitioners of the mystic arts were the forefathers of modern sciences like chemistry, botany, medicine, physics, astronomy, and philosophy. Through magick, they learned a unique way of looking at the inner and outer world. This is the major premise of any philosophy: "Look at it like this..." The magical philosophy has left a tremendous legacy. The history of these alchemists, mystics, healers, and theurgists outlines one of the most interesting areas of human endeavor: consciousness studies.

The mapping of consciousness states and their corresponding typical experiences (plus how to attain them) forms part of the doctrine of any magical philosophy. The most widely embraced map is called The Tree of Life. The very foundation of the modern western occult tradition is contained in this circuit or glyph of The Tree of Life. It describes a hierarchy of 10 states of being (Spheres), and 22 characteristic modes of transition between them (Paths). All the corresponding symbolism of the human psyche is categorized according to this comprehensive basic structure. It represents all ways of being and becoming--all possible states of consciousness.

The philosophical system which the Tree represents originated in the Jewish culture. Through synchronism it amalgamated with the Gnostic, Egyptian, Arabic, and other systems. This synthesis became known as Hermetic Qabalism. In divorcing itself from its Hebrew roots, Qabala returned to the mythic domain of its informing archetype, Hermes.

In ancient Egypt, this archetypal energy was represented by the god Thoth, Lord of Magic. He presided over skills such as writing and translating. In Greece, as Hermes, he was the messenger between the realm of the gods and men--he who could fly into the heights or depths. Our modern forms of writing and translating have moved into information processing via computers. Information processing is fundamental to any form of communication.

Information processing is the foundation of all technology. Thus, Hermes is the informing myth of a technological approach to sacred psychology and spirituality. Hermes' domain includes gnosticism, alchemy, magick, and depth psychology. Like programming, they are all hermeneutic endeavors, involving the process of interpretation. Jung noticed that, *"Every interpretation necessarily remains an 'as-if.' The ultimate core of meaning may be circumscribed, but not described."* He refers to the "as-if" reality as the closest we can come to direct knowledge. For example, our God-image in the psyche is our closest (and only) experience of Divinity, however unique it may be. We perceive it directly, but it is a specific interpretation of the unknowable archetype.

MYTHICAL REALISM:

Ultimately, it is our sense organs which help us interpret the world and our experience through our perceptions. They help us make a distinction between what is "real" and "unreal." The emotional part of the brain, (the right, spatial lobe), cannot analytically distinguish a symbol from a symbolic representation. In imagination or virtual reality it becomes a moot point. Fantasy, in fact, animates both our inner and outer worlds, and creates meaning. The on-going imaginative process of the psyche is the ground of being. Jung spoke of the psychoid aspect of psyche as the vast non-human action of the universal forces.

Through the technology of virtual reality, we can take the imagery arising from deep within our psyche and create an "as-if" reality which we can enter at will. If magick is the art and science of changing consciousness at will, in this context, imagination is reality. It manifests as images. Jung implied that our closest approach to God or any minor deity is through the God-image. This brings to mind the process of invocation, or calling in the god-form in magick. The conjuring of these archetypal images, and identification or interaction with them is a primary application of ritual in theurgy. In magick, it is taken virtually literally, as magician Dion Fortune's comment shows:

...the Ministrant proceeds boldly with the ceremony as if that which he had invoked had actually come about...He must have the courage of his convictions, and give himself up boldly to be the instrument of the forces he has invoked, relying upon them to bring about the transition from fantasy to fact, which is the meaning of transubstantiation. If he proceeds to play the part he has assigned himself as if it were a reality, he will find, provided the force he has invoked is a genuine force and the pictorial image he has made is a suitable one, that imagination has become reality and

that an influence is flowing into him, and emanating from him, which is a very real thing indeed...

Since archetypal images arise from the collective unconscious, they are common to all mankind. The God-forms invoked in magick are the basis of our psychic life and our relationship to the universe. Everything we are is virtually imagined through their forces and forms. There is nothing but their primary essence to be found in either our concrete or imaginal reality, if psyche is the foundation of reality. Magic and archetypal psychology allege this is so.

Jung advocated the practice of Active Imagination for transformation. He based his technique on the alchemical meditatio, or dialogic exchange with the transpersonal. It involves entering the autonomous stream of psychic imagery with the values, ethics, and perspective of the ego, and interacting therein. Magick proposes a very similar premise, but has an entire technology for clearing out a purified psychic "space" into which an undiluted primal force may be called forth. Both techniques share the same result: a consciousness journey with real-time effects. Imagination is reality when it has the power to move us biologically, kinesthetically, viscerally, emotionally, mentally, and spiritually.

The prospect of "home-brewed" imaginal worlds for exploration and recreation is on the horizon before the turn of the millennium. Those pursuing the age-old Quest or Great Work will certainly want to put this possibility to purposeful use. When a person becomes caught up in a ritual, visualization, or meditation, inner vs. outer becomes a moot point. Imagination becomes a spontaneous influence which can be "seen" through the Observer Self. Magick is the directing of that experience in a specific direction, to a particular focus. Each ritual has its own telos, or goal. It is this striving, goal-oriented attitude of the ego that makes magick a heroic quest.

We may speculate that simulating archetypal forms in VR gives their transpersonal energy a "body" to inhabit, just as visualizing does. Chronicity (the propensity for archetypal forms and events to cyclically recur) and synchronicity (acausal connection) provide magically-charged energy for the simulated forms. All perceptions of archetypes are simulations of their unknowable primal nature, anyway. This holds true in mystical experience, art, and imagination. According to Jung, archetypes are everywhere, so they will certainly be found in virtual reality, alive and well. In this form, they will be more accessible than ever. The novice could easily get a first-hand training experience in what inner dialogue is like.

Archetypes will be just as inclined to inhabit or inform these virtual images as any other. In fact, there is no way around it, if the programs are consistent and coherent. With an artificial intelligence program added, they will behave with a certain degree of spontaneity and novelty, congruent with their character. VR conjures them, evokes them, or calls them up into awareness for interaction. The imaginal character speaks and behaves in its characteristic manner, but reacts uniquely in each specific situation. The entire panoply of symbolic correspondences, for which the god-form is the nexus, could be displayed interactively for the aspirant.

In the magical operation known as assumption of the god-form, the participant identifies with the archetypal power. In VR, the aspirant could experience being decked out in full regalia, with all the symbolic appurtenances, in an environment and atmosphere exclusively geared to expressing that power. To role-play the characteristic utterances and acts of that god or goddess could be a further amplification of the process. Mythic journeys, programmed by master magicians, will be available like the electronic games of today. It could be used for accessing and anchoring transpersonal resources for the personality.

VIRTUAL BODIES OF LIGHT:

A major tenet of Qabala and occult philosophy concerns the nature of the astral body. The Jews call it the Tselem. This starry body is composed of scintillating etheric energy. It is perceived in imagination as being composed of light that takes on various fine forms. The analogy with electrical energy and light in cyberspace is obvious, if not literal.

To work on the astral level, the magician identifies with this virtual double of the physical body. In imagination, one perceives with the eyes of the body of light while maintaining its perspective and orientation. The light body has the ability of separating itself from the constraints of the flesh and blood body, without limitations of a mortal frame.

The astral body contains the fully functioning consciousness of the aspirant. Its existence is alleged to persist after physical death, as reported by those with near-death-experiences. Magically, or psychically, the astral body is built in the imagination through the process of breath control, or pranayama. The VR program supercedes the trained imaginative faculty. It opens the experience to those who are not of contemplative nature, those unwilling or unable to spend years training the mind and visualization capacity. It makes the dialogic realm open to all in limited form. It establishes a new medium for the traditional I-Thou dialogue.

The virtual astral body could be employed for the practice of pathworking. Magick, itself, is the practice of practical Qabala, and its most practical exploits are the imaginal consciousness journeys known as pathworking. As a magical practice, pathworking differs from ceremonial invocation by imaginally transporting the aspirant to the location of an archetypal Form, rather than calling the Form into the circle or oneself. The experience includes a "there-and-back-again" experience of a very specially conditioned terrain. The exposure to symbols keys processes in the mind which influence the process of transformation.

The paths of The Tree of Life are metaphorical "in-roads" through the imagination. Each is marked by typical landmarks, milestones, and signposts. Each contain their ordeals, challenges, and intrinsic rewards. Pathworking offers a way of "finding" or "locating" archetypes in imaginal space. In imagination, we do it simply by wishing ourselves there, actively interacting. In VR, it requires some programming, but the

initial intent is the same whether creating your own program or authoring a master program for others.

Each successive pathworking increases the area of perceptible inner space. One can enter the experience as a passive spectator, or as an active participant. The emotional impact of the experience is real. Imagine when these experiences become re-processed in your dream life! In VR, other humans could play the parts of entities encountered, or the journey may be undertaken as a common adventure. All pathworkings return the traveller to the point of origin, which is usually some symbolic form of door to the netherworld.

Another magical exercise, rising on the planes, is conducted while in the Body of Light. In this process, one imagines oneself moving further and further up through the hierarchy of planes described in the Qabala. You can get a sense for it if you can imagine an ever-widening perspective moving from sub-atomic to cosmic. For example, imagine you are a sub-atomic particle, an atom, a molecule, an organism, an animal, a human, the biosphere, the earth, the solar system, the galaxy, ad infinitum. All of this type of imagery is readily programmable and universal in meaning.

VIRTUAL SEX MAGICK:

When people hear of VR, one of the first application that leaps to mind is the possibility of virtual sex. Extending that idea into magical realism we come across the notion of virtual sex magick. Virtual sex magick awaits the development of tactile feedback systems. However, the act itself is a generator for surplus magical energy which may therefore be focused on a specific desire or intent. This is known as the "bud will" or "magickal child." It uses the emotional energy of enflamment coupled with the directive powers of will, visualization, and intentionality.

Perhaps the most commonly recommended application of sex magick is for attaining "knowledge and conversation with the Holy Guardian Angel." While this wasn't meant as "knowledge" in the Biblical sense, it is certainly a possibility in VR. The consummation of the act means either identification with, or dialogic interaction with the higher self. Most acts of sacred sex reenact the holy union (hierosgamos) of God and Goddess, Shiva and Shakti, Krisna and Radha, Yang and Yin forces. It is a cosmic union of complements. Here again is fertile ground for the programming of a VR reality to enhance the imaginative faculty.

Imaginal variations on the mystic marriage could use images of mythical and historical figures or draw from the symbolism of Tantra, alchemy, and Taoism, to name a few. One might perceive the experience from the perspective of a particular god or goddess in a classical union. Each program might contain one or many experiences of a similar nature. The menu might include the union of God and the Shekinah, God and Sophia, spirit and nature, anima/animus, priest/priestess, or

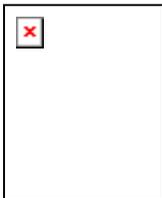
King and Queen. One time you might be Solomon and Sheba, another Ares and Aphrodite, another Arthur and Guinevere.

The Royal Marriage is a transcendent symbol of the Self, and embodies psychic totality. With plasticity of form and interaction we can only speculate what hermaphroditic creations might result, what androgynous beings. These experiences might not represent their mature psychological counterparts, but they could be inspiring dress-rehearsals, which jump-start the creative imagination, adding a new dimension to sexual life--sort of the reverse of pornography.

Normally, we are not taught to direct our thoughts into any higher purpose during sex, much less at the point of orgasm. Yet, to do so can be healing and connective in a very deep way. VR could serve as a model and demonstration far beyond any orthodox sexual therapy. Interactive fantasy could be raised to new heights. This technology could teach us new ways to relate to our bodies, sexuality, and art (including the art of magick). Virtual tantra is a new medium in the sexual arena.

Another VR alternative for sex magick is to engage in actual sex with one's partner. Both parties have VR helmets (much reduced in size from current cumbersome models) which allow the simultaneous visualization of the "bud will," the "magickal child," or goal of the operation. This dynamic image is the focus of the lovers who invest it with their mutual energy and love to transform it from mere potential into a vital force for change in the real world. VR insures that both parties visualizations are identical as possible.

The moment just prior to orgasm is a very open, suggestible state. For some it is difficult to hold the magickal focus at that moment. Passive impregnation by the VR system (based on the aspirant's desires) could be readily accomplished at that point with suitable imagery. It could be a non-literal, yet post-symbolic way of conceiving an inner, spiritual "child" through ritual--the embryonic form of the greater self. Countless variations on magical talismans and mandalas might constitute part of the programming, as well as explosive imagery of cosmic union. For the Royal Wedding to be truly consummated, insights must be applied in practice. For it to fully work its magic, it requires a prior marriage of Anima and Animus within each



aspirant. This is a form of "spiritual body" building.

VIRTUAL THERAPY:

SPECULATIONS ON A NEW MODALITY

by Iona Miller and Burt Webb, c1992

ABSTRACT: The advent of virtual reality technology opens up a whole new dimension for therapy. Psychotherapist and client may enter an electronic simulation which allows them both to occupy a shared imaginal space. The parameters of the system and environment can be programmed to display specific archetypal imagery which is known to influence the deep psyche. The ability to interact with the system provides a means of intervention and transformation.

The therapist, as electronic shaman, either guides or follows the client's process. He chooses from a repertoire of archetypal encounters those images which fit most closely, thus amplifying the "cybernaut's" imagery experience. Distinctions of inner vs. outer become experientially moot. Therapeutic interventions, impossible in consensus reality, become readily available without standard ethical considerations.

The shaman's flight into the netherworld to retrieve a "lost" soul becomes a literal reality experienced as a co-conscious journey. The discernment and non-directive attitude of the therapist insures that the client will not be traumatized. The perception of universal and personal metaphors is enhanced and amplified, rather than imposed. As in hypnosis, the client maintains the possibility of "escape" back into consensus reality, simply by closing their eyes.

VIRTUAL REALITY

Virtual Reality (VR) is one step beyond computer visualization. Through VR, we can actually "climb into" a synthetic visual and aural environment, or simulated "reality", and experience visceral responses to that world. Mankind has always used symbols, imagery, and metaphor to facilitate changes in consciousness. This is traditionally the realm of the shaman, magician, and more recently, the psychotherapist. In this era of seemingly magical technologies, we may combine both technology and technique for exploring the imagination to create a new modality. "Magician/therapist" is the informing myth of VR Therapy.

Since VR technology already exists, we should consider its application to communication and therapeutic interactions. "Virtual" means to have the same effect but not the substance of physical reality. In terms of psychological impact, virtual reality may be "as good as" or even better than physical reality. This technology allows us to create whole universes at our fingertips to improvise "realities".

Synthetic realities are created by generating synthetic visual, audible, olfactory, kinesthetic, and/or tactile input. The 3D effect, scenery altering in relation to the roving point of vision, is created by showing slightly different views to each eye. Bob Jacobson describes the universe inside cyberspace.

A "virtual world" is a unique, intangible but highly designed information environment generated by a computer and transmitted by "virtual interface" technology to a user who "enters" the virtual world via appropriate sensory mechanisms. The virtual world environment can be as complex as a three dimensional "sense surround" comprising seamless visual, aural, and tactile cues; or as simple as a computer conferencing system.

Virtual Reality simulations seem so real because the right hemisphere of the brain makes no distinction between symbols and the symbolic reality they represent. Hypnosis, used to by-pass the critical mind, could be very effective in creating an enhanced sense of "reality." This suspension of disbelief is why experiential psychotherapies work. Through the manipulation or transformation of symbols, the emotional brain can experience changes as real as those induced through the external environment.

In Virtual Reality, the map *is* the territory, even though we may keep reminding ourselves it is still representative of the deeper layers of the psyche. In Virtual Reality, it is axiomatic that "imagination is reality." The possibilities are endless, just as they are in dreams. The participants engagement in the scenario is immediate, and compelling. The seemingly impossible becomes permissible. In VR you do not necessarily even have to have a body anymore. Or, you could chose an option and become an animal, or even an inanimate object. This could be therapeutic if it broadens awareness. Consciousness, or the sense of being, is liberated from the constraints of normal time and space.

In the near future, perhaps the best metaphor for the Virtual Reality experience is that of a vehicle. While both parties are seated in comfortable chairs, their two points of view will be able to "fly" through a computer generated space. Emphasis here is on the visual and auditory modes. These sensory inputs constitute about 97% of our information absorption, so this combination can be very powerful. For therapeutic purposes, the program can draw on cross cultural symbols of transformation.

In the mid term, it will be possible to move around in a space with some tactile feedback that will allow the therapist and client to interact with computer "objects". Emphasis here would be on adding physical mobility in a complex space and interaction with small objects to the visual and auditory modes. This will permit participation in physical activities such as "rituals" including "magical implements."

Farther in the future, it will be possible to interface directly with the brain and realistically simulate "reality." Actual motor activity will be prevented by activating the same brain stem block which prevents actual movement during dreams. All senses receive congruent input and virtually all types of experiences become possible.

In order for a clinical system to be practical, one of the critical elements will be an "authoring system". This will be a computer program that a non computer graphic specialist will be able to use to construct "worlds" and interactive scenarios. It will be highly interactive and should contain generic settings, human forms, objects, textures, etc. Initially, it might be sort of a three dimensional "cut and paste" system of elements. The design system should be readily understandable to the therapist in terms of visual "primitives" which would include archetypal forms.

During actual excursions into "therapy space", the therapist would control the "world" with some sort of hand tool. Current work is focusing on a sort of wand which would give the user immediate control over the visual elements in the space. It will function like a sort of super "mouse," or "scepter of power."

Biofeedback would be very useful for registering the reactions of the client to the different elements and experiences in the therapeutic space. Preliminary set up for a particular client might consist of running through pictures of settings, objects, people, etc. which might have significance for the client. The results of the survey would then be used to program the visual experience in the therapeutic scenario.

The therapist could see the space differently than the client. For instance, the gaze of the client could be tracked and the therapist would see a set of cross hairs where ever the client was looking. A colored graphic display of biofeedback information on the client could float in the air next to the cross hairs.

Virtual Reality Therapy is not prescriptive. It merely requires immersion in the flow of the on going imaginal process. Virtual Therapy is not treatment by a computer, but through the computer generated interface. Both therapist and client

enter the "electronic dreamtime" of virtual possibilities. Virtual Therapy is a shared journey, which can either be pre programmed much like guided visualization, or an extemporaneous "guided dance" provided by the therapist who follows the client's emergent response.

The psyche employs metaphor as an encrypting system for storing and retrieving many kinds of information. Root metaphors are cross cultural, part of our collective heritage, and sometimes transpersonal. We become aware of these archetypal patterns in our life through our physical, emotional, mental, and spiritual interaction with the outer and inner world. Some experience, especially (pre verbal) trauma, becomes stored as epistemological metaphors. When these are de coded in experiential process-oriented therapy, they reveal what the experience was like. They form the foundation for "how we know what we know" about our experience and perception.

Metaphors, like imagery, are subject to transmutation and transformation. They have been widely employed in therapy for a wide variety of purposes. Root metaphors lie at the basis of a person's self image, who and what they perceive themselves to be. In therapy, when we change the metaphor the attitudes, feelings, beliefs, and injunctions of the client are modified automatically. An excursion into chaos and consciousness in the electronic dreamtime could certainly be influential if guided properly.

EXPERIENTIAL THERAPY

There are two basic approaches to the use of metaphor in therapy. The first is a "canned" approach, which assumes a beneficial effect from certain imagery or stories for certain types of problems. Ericksonian hypnosis uses the "imported" metaphor for a wide range of diagnoses. The stories relate to the dysfunctions of the client and show a route to healing as a possibility and model. The treatment is essentially pre-determined and applied in a "one size fits all" manner.

In process-oriented therapy, the metaphors emerge from the client, rather than being imported by the therapist as a quick fix. In process work, the therapist does not assume to have any pre-packaged means of healing the client. Rather, the metaphor and meaning emerge organically from within the client, and the therapist merely guides and fosters that emergence. By merely "trusting the process", they arrive at a unique, creative solution. Epistemological metaphors are idiosyncratic for each person, and are the key to individualized therapy. Their experience is encoded in their personal symbols.

Through the amplification and elaboration of root metaphors and epistemological metaphors, VR offers a means of enhancing many therapeutic processes which employ imagination. VR applications could be developed for Transactional Analysis, Gestalt, Transpersonal, and Jungian therapies. Many of the stock-in-trade techniques of Neuro Linguistic Programming (NLP) could also be employed. In VR,

one could experience even more vividly the "*part's party*" of conflicting subpersonalities, the "*change history*," or the process of "*re-framing*."

VR could be used for simple hypnotic regressions, phobia desensitization, re-parenting, the Gestalt two chair technique, or dialogue with figures like the shadow, anima/animus, or wise self. Psychodrama scenarios with role playing and other players could be useful. The other players could be human beings sharing in the therapy space, or computer generated images under the control of the therapist.

For example, in re-parenting, the therapist could create an imaginal care-giver based on the client's ideal description, or use the client's adult self as the model. The client may be regressed, even to infancy or womb experience, to feel viscerally the nurturing and positive support which were unavailable historically. The new "memory" of responsive nourishing does not change the historical fact, but supercedes it in meaning. The greater the need, the deeper the impact.

In simulating subjective reality, VR provides a wider range of imaginal scenarios than traditional therapy with its ethical constraints. Some pioneers in re-parenting were highly criticized for their physical interaction with clients. One example was a therapist who actually breast fed her schizophrenic clients during spontaneous regressions, so that they could internalize that warmth and mature from the most fundamental stages of development. Clearly this crosses the ethical line. However, in VR the therapist has a host of resources available which do not create dependency issues, or violations of physical parameters.

Another alternative is that the client creates his own world and manipulates figures within it, as in sandtray therapy. The story unfolds from the client and is externalized in VR. The therapist can look on or guide. The client can choose to "climb into" his waking dream and participate, or not. One could identify experientially with any character or object.

The high tech shaman/therapist may employ VR to supercharge the therapy process. However, this turbocharged therapy would not be indicated for most sessions. It should be interspersed with traditional sessions. In this way, Virtual Therapy does not become a substitution of symbolic realities for the world. Contraindications would be fairly self-evident. The same criteria apply to Virtual Therapy as those for determining any therapy of choice for each client. It might be fine for a systematic desensitization, and sensory overload for a fixed delusion.

VR can be used as a psychological training environment. The experiences are not only simulations, they are virtually real. They are true experiences on the emotional level. VR can be used to enhance our inborn perception and reaction capacities. With the subject isolated from sensory contact with consensus reality, all input comes from the totally fabricated environment. Client and therapist can open a door into any reality or fantasy they choose, for therapeutic purposes.

In the VR environment, we have the means of extending the capacities of both the body and psyche. Symbols and imagery can be used in either an "innoculatory" or

corrective manner for balancing the personality. Paradoxically, they can be used for fostering a strong coping ego, or dissolving the rigidities of a personality through "ego death." The dissolving of the outworn, defective personality and the emergence of a new self in a safe environment, under controlled conditions has its model in the ancient psychological prescription of alchemy: "*Solve et coagula*."

Descriptions of this spontaneous process are found in many cultures. One classical example is the *Tibetan Book of the Dead*, which describes specific Bardo states, or states of consciousness, which emerge during the psychological rebirth process. The varieties of psychological rebirth are many. They generally involve rising anxiety on the part of the ego undergoing the experience. The fear comes from dissolving the primary identification with ego as the only means of experiencing Self.

The ego must pass through and beyond the fear, pain, and chaos which invariably lie on the path to inner healing. Typically, after this phase, there is an emergence into the transpersonal realm, where new resources are found, which can be brought back from the experience and integrated. In the modern era, similar experiences were reported in the field of consciousness studies, using psychedelic substances in a therapeutic manner. Most of the parameters of this experience could be simulated in VR Therapy without the use of drugs.

In this quickly evolving field, there are certain developments which would mark greater degrees of freedom within the therapeutic setting. Right now with simple computer conferencing, it is possible for a therapist at point A to interface with a client at a remote location. With a video interface, the nuances of personal observation are not lost. However, there is a definite perception of "remoteness" in the exchange.

The creation of a more tangible common meeting ground in cyberspace or a virtual world, overcomes this initial problem. However, it raises the practical problem of both parties having interfacing gear at their respective locations. Current state of the art involves cumbersome goggles and other apparatus like gloves or joysticks. All this gear is attached to the computer by cables required for power and information flow. Even if both therapist and client were in the same location, merely dressing in this gear creates an initial barrier between them.

The current generation of commercially available helmets deliver a low resolution image with a limited field of vision and a slow refresh rate. The complexity of the computer generated world is limited with respect to the number and complexity of objects, visual detail, movement, etc. There may be an appreciable time lag between head movement and image response. Tactile feedback is limited to the experience of sensations of texture and light pressure on the finger tips.

Force feedback utilizes special hand devices which duplicate the resistances experienced during movement of an small object under the influence of external forces. More sophisticated force feedback with complexly shaped objects with mass and forces acting on the whole body are under development but are complex and expensive. Creating the illusion of real solid objects would facilitate the therapy

process, even though 97% of human sensory processing normally occurs through sight and sound.

According to Webb, "whole body suits have been created which sense the position and movement of the user's body and generate a 'computer simulacrum.' This allows the participant to view his own body and it also permits two or more people to see each other and interact. The amount of information needed to track position in space is very small, so it would be simple to use ordinary phone lines to communicate between users in two different locations who would appear to be in the same space."

The body suits from VPL are complex and involve a number of different sensor systems for different types of movement. They have to be individually fitted, which is time consuming and expensive. Current data transfer systems inhibit movement. The person wearing the suit has to have a thick cable physically connected to the computers. Ideally, there should be some sort of wireless link to the computers so the individual would be free to move around in a controlled space. Unlike conventional therapies, many potential applications of VR do not require the presence of more than one person.

This raises the question of self-administered therapeutic interactions where the computer program itself actually guides the experience. Many of the same issues come up that arise with self administration of psychotropic drugs. Again, according to Webb, *"the function of psychotropic drugs is to introduce a new state of consciousness into the brain without regard to specific information content. VR is a new way to introduce specific information content into the brain without a specific state of consciousness. While the presentation of visual and aural information can certainly result in an altered state of consciousness, VR and psychedelics are really profoundly different."*

That having been said, the potential for VR to be used to alter consciousness is vast. It could exert an incredible control over states of consciousness for either beneficial or harmful effects. The results could be as trivial as temporary alteration of mood or as profound as a radical alteration of personality. These changes could be voluntary or imposed from the outside. The capability of VR to either liberate or control the mind really needs to be explored and understood.

Artificial intelligence programs are being developed which can form a model of the user including an estimation of the user's belief system. Work is being done on the reading and interpretation of emotional states via facial expressions, gestures, voice tone and inflection, word choice, statements and even biophysical variables. Such a system could spontaneously change a virtual world based on the actions and reactions of a user.

VR is not immune to the possibility of abuse. Much like video games have become a form of addiction which limits the availability of the individual for real life experience, VR has an escapist, addictive potential, because it could conceivably even create pleasure or ecstasy states on demand. In a therapeutic situation, theoretically the therapist is in control of the parameters of the experience. The

reality of VR will probably include self-administration or direction for a variety of goals, including the possibility of virtual sex.

When sophisticated control languages are designed which permit the individual to have real time control over the design of the virtual world, there will be a real possibility of the projection of internal psychological instabilities into the virtual world, creating dangerous feedback and feedforward loops. There is also the question of involuntary immersion in a virtual reality designed to disorient and torment. In the information age, not all computer use is benign.

Most discussions of virtual reality assume that the virtual world will be constructed explicitly by the human operator. However, the computer could use fractal mathematics to construct a realistic landscape complete with plant life. There are a number of systems under development for creating artificial mobile life forms as well. The computer could generate a complex ecosystem without human intervention, which could be explored as if it were a newly discovered continent.

A typical hypnotic technique is for the client to create their own special place. This island of serenity, or sanctuary, could be explicitly programmed to suit individual desires and creativity. The juxtaposition of favorite elements would be possible, even if they are widely separated in the normal world. These "sacred spaces" would serve as havens of refuge, and also provide spiritual nourishment. The concept of *temenos*, an enclosed precinct, is relevant here. The customized cyberspace can function as a cocoon for the process of transformation or metamorphosis.

These VR experiences also offer the possibility of safe adventures which could be used, not only to relieve stress and anxiety, but to promote self-confidence and self-esteem. They would function as a psychological training ground, because there are real experiential consequences of immersion in cyberspace. The emotional changes could be profound, including the spiritual insight that our consensus reality is highly conditioned by the nature of our perceptions. We experience an image synthesized by our visual and neural systems triggered by stimulus from the physical universe. Our relationship with and attitudes toward physical reality may be profoundly altered by our development of VR.

Specific symbols could be introduced into this "brave new world." This could provide a backdrop for creating state-specific alternities. Therapy could draw its cue from the ancient magical practice of pathworking. Magic or Hermetic science was the closest ancient art to psychology. It preceded psychology in much the same way that alchemy preceded chemistry. In pathworking, the aspirant "journeys" to the imaginal location of an archetypal Form, and returns by the same route. Jung alleged that archetypes can be found everywhere, the universal embodied in the specific. In cyberspace, archetypes could be presented in a more abstract, fundamental and profound manner as "pure" ideal forms.

Such consciousness journeys have a transformative effect. Like the shamans of old who could "fly" to the moon or descend into the underworld, one's consciousness is set free from the bounds of empirical reality. The pathworking technique is much

the same as that we have come to know as "guided visualization." It is pre-programmed. It could be used to prepare a client for more spontaneous interaction in the inner realm of mind. These experiences produce tangible outer effects on the behavior, body, emotions, and thoughts of the cybernaut.

In Jungian psychology, it is known that certain symbols cluster together. They seem to share a common nature, an affinity, or to have a natural sort of correspondence. Many of these correspondences are chronicled or codified in the lore of the occult, myth, and folklore. The image of a god or goddess presides over the entire cluster of related symbols. Thus the god Apollo is associated with the astrological force of the sun, the color gold, healing and certain specific scents, colors, sounds, events, plants and animals. Synthetic "gods" could be created by artificial intelligence programs to populate a virtual world. They would be capable of engaging in conversations with VR participants.

Like cures like in psychosomatic relationships to dis-ease. Jung said there are gods within our diseases. That energy can be transformed from a dysfunctional form to a transpersonal resource. It requires building a conscious relationship with the primary archetypal force. Jung encouraged a kind of meditative dialogue he called active imagination. It was patterned after an old alchemical procedure. In active imagination the ego actively engages the flow of imagination directly as a willing participant.

We can immerse ourselves in the living stream of consciousness and interact with that spontaneously creative imagination. VR could enhance this perception, eliminating years of training to develop visualization skill. It is not pre programmed, nor introjected from the therapist.

Traditionally, pathworking is a mediating act which occurs in imagination. The imaginal world is known to psychologists as the realm of the psyche, or soul. Pathworking and VR could be used to gain access to specific resources and qualities associated with the archetypal symbol clusters. During the excursion, the participant enters as his ego-oriented self, complete with its values and goals. This is not idle daydreaming nor self-gratifying fantasy.

The subject maintains this perspective even while exposed to and influenced by the evocative power of the archetype. Unlike a dream, there is the possibility of exercising intent and choice, as both the conscious and sub-conscious work together in a way that may never have been experienced before. The symbols create an atmosphere which permits the development of a direct relationship of the ego with the transpersonal force.

This spiritual application of VR creates direct experience of personal and transpersonal interaction. The I-Thou relationship is made manifest in a non physical reality. The experience is unique for each individual in both content and meaning.

We foresee the time when we will be able to dispense with the clumsy goggles and gloves and tap directly into the human brain. This would allow the creation of all the sensory and motor experiences of the "real" world. It is the ultimate goal of virtual evolution. Because the sensory systems are not passive detectors, but active processing subsystems, it would require the creation of active computer analogs of the sensory apparatus that could interact with the brain in the same way.

It may become almost impossible to distinguish Virtual Reality from Reality Proper! This raises an obvious ethical concern. If we succeed in creating a computer "dream time", it will have a profound impact upon our sense of personal identity and reality. Many options will be explored because of strong psychological, social, and economic demands, regardless of any individual researcher's opinions.

When *The Whole Earth Review* (Winter 1987) covered the VR revolution, they made an important point:

We can interpret a new tool as we would a dream, for what it tells us about the psyche of its creator. For with all their ostensibly practical aims, tools are also displays of fantasy, tangible metaphors poems. They are the stories we tell ourselves about who we think we are, or wish to be. And the scary thing is that they help these stories to come true.

The word "technology" is derived from the Greek "techne" which means "the manner of accomplishing a task". This is also the root of the word "technique". As the quote implies, technology originates in the mind; without the concept of hammering, a hammer is just a strangely shaped piece of metal on a round piece of wood.

In the world of VR, man literally gets to play God, at least for a local universe. WER says,

We see in these images, for example, an uninhibited celebration of the separation and transcendence of mind over body: a disembodied intellect hovers over a barren and regular landscape, the clear line of thought being all that is necessary to create and control.

It is the ultimate control fantasy: "the images of supreme and effortless power from a distance."

This is a very glib and powerful image but it does not tell the whole story. There will be interactions with other human beings in virtual reality and we all know how quickly visions of control and perfection evaporate in the heat of interpersonal interaction. There is also the prospect of virtual worlds created by chaotic and fractal algorithms which will yield novel landscapes filled with strange plants and animals.

Virtual worlds will have their own laws which will restrict the control of the individual over circumstances. There is also the prospect of artificial intelligence creating entities and environments with their own agendas. The initial vision of VR

may be accurately captured in the WER quote but the actual experience of VR will quickly replace it with a more complete understanding of the new realm.

Psychologically, the current interest in VR might be viewed as one expression of the goal of spiritual ascensionism disembodiment to free the trapped spirit. A compulsion in this direction undermines the sense of wholeness which involves holding the tension of the opposites between corporeality and spiritually.

It presents a new challenge to the conundrum of mind /body split, the primary psychic wound of modern western man. Grandiosity or inflation may be a natural side effect of this new technology. The new awareness this technology brings us requires grounding, integrating, and digesting.

The inevitable interpenetration of the virtual world with the physical world will tend to heal this division of the electronic mind and the physical body. This will occur in a number of ways. Most intimately, there will be the looping of body performance into the virtual realm. The computer representation of the body could change color as the person performed a particular physical task such as a tennis serve or a martial arts movement.

The virtual representation would accelerate the learning of a physical skill. The internal physical processes such as blood circulation, muscle exertion, electromagnetic brain activity, blood chemistry, etc. could be detected and externalized so that a person could walk around inside a visual representation of their own body. These applications would lead to a whole new level of self-awareness and biofeedback or neuralfeedback training.

Beyond an individual's self-explorations, the physical world will be imported into virtuality and computer-generated objects will be exported into external physical reality. Video windows driven by cameras will bring external scenes into virtual reality. Robotic manipulators/vehicles will be able to translate activity in virtual reality into actions in the external world.

Transparent glasses which can display computer graphic "overlays" will be able to show an individual virtual objects superimposed over his normal visual image of the world. With appropriate sensors, physical actions with respect to these computer objects will be converted into control information for computer devices. While it may be simple and easy to envision a hermetic seal between virtual reality and physical reality, that is not what the future will hold.

Even with a mind-set that denies the body primacy, the body is affected. It doesn't matter what external forces influence the patterned firings of nerve cells. The body cannot help but be profoundly influenced by its experience in virtual reality. Its biochemistry and electromagnetic field are influenced, as well as glandular activity. This has tangible results like any emotional experience. But VR Therapy has the potential to be much more impacting than, say, a trip to Disneyworld; or a movie.

The bottom line to the degree of influence exerted by the experience is the meaning which the participant attaches to it. It remains to be seen whether the net result of

VR experience will be life enhancing or diminishing in regard to intra personal and inter personal communication.

Psychology is investigating the common ground between itself and spirituality. Most psychologies see the value for well being within some kind of spiritual quest or perspective. Different experiences condition our worldview and our view of ourselves. Our image of our relationship to the universe, and optimal conduct within that realm is the province of philosophy. It involves the primary questions: "Who am I, why am I here, and where am I going?" VR experience could affect an individual's response to these questions, opening a broader reality.

We know that the new computer technologies such as virtual reality are here to stay, whether they get used for positive or negative purposes. In principle, it conforms with the basic definition of magic: "*Magick is the art and science of causing change in conformity with the will,*" according to Aleister Crowley. VR certainly brings us a giant step toward literalizing that notion. But to what end? If not to aid ourselves and our fellow human beings, what is the purpose?

Speaking of the philosophical implications of the new technology, Frank J. Dyer reminds us that eastern philosophy has long recognized the virtual nature of existence. The marvelous universe of discrete objects is an illusion. It is a veiling of the true transcendent nature of Reality through restriction of our consciousness to the world of apparent form. This illusory aspect of the manifested universe is termed *maya* in the yogic philosophy and in *Vedanta*. In yogic philosophy, all of this manifestation exists for the purpose of providing certain classes of experience to consciousness, individualized as the Self at the core of each person's being.

This could be the ultimate application for Virtual Reality, to enhance and accelerate that process.

Burt Webb is a multi-faceted individual: businessman, computer program writer, futurist, scientist, multimedia artist, musician, writer and speaker. He is always on the cutting-edge in such subjects as consciousness studies, the holographic nature of reality, post quantum physics, nanotechnology, chaos theory and complexity, cognitive psychology, neuroscience, computer science, and science fiction. He has written and lectured widely in these and other areas of science and technology.

This is an excerpt from *DREAMHEALING: CHAOS & THE CREATIVE CONSCIOUSNESSPROCESS*, by Graywolf Fred Swinney and Iona Miller, c1992. Using his roots as a Gestalt Therapist, Transactional Analysis teacher, and shaman/therapist Graywolf developed Dreamhealing as an experiential therapy practice. When Chaos Theory came on the scene, he noticed that the metaphors of this new science of self-organization reflected his healing practices. Developing these analogies, he came up with the Creative Consciousness Process (CCP), based on a model of consciousness and the new paradigm. As more research on complexity and chaos theory emerged, he and I revisioned therapy as a process of liquification, and chaos consciousness as a healing force. Long-time friend, noted dream researcher

Stanley Krippner mentored us through the process of writing the book, attended our conference on *Chaos and Consciousness*, and provided an Introduction to *Dreamhealing*, detailing Graywolf's calling to the shamanic path.

THE DREAM GUIDE: NAVIGATING THE STREAM OF CONSCIOUSNESS

by Graywolf Fred Swinney and Iona Miller, c1992

ABSTRACT: The dream guide is one who has navigated the river of consciousness many times before. Aware of the nuances of the territory (s)he can invite others into that deep world, providing a sense of confidence and safety. Preparation for being a dream guide includes experience on both sides of the process. It involves working through one's own issues and letting go of personal agendas. Along with the DREAM JOURNEY GUIDELINES here is the basic "how to" for intuition to play with. These are not strict protocols, but guidelines or suggestions for moving through the levels of the psyche as described in our ego model.

He will manage the cure best who has foreseen what is to happen from the present state of the matter.

--Hippocrates

As a dream guide, it helps to empty yourself of knowing, let the dreamer choose the image that opens the work and leads the way. A good dream guide does not lead but rather follows the dreamer's process to the dreamer's own definition of satisfaction.

--Ann Sayre Wiseman, *DREAMS AS METAPHOR*

Anatomy of a Dream
Flowing with the Dreamstream
Venturing in the slipstream of Consciousness
The Dreamguide's Issues: The Wounded-Healer
Therapist as Strange Attractor
A Different Reality
Chaotic Imagery

Co-Consciousness: We TWO Are ONE

The Dream Guide and Chaos Theory

Entering the Flow

Contact Graywolf at Aesculapia Wilderness Retreat: Individual sessions, and workshops

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ANATOMY OF A DREAM

A dream is a stream of chaos, a river of undifferentiated consciousness and creativity, flowing through the self-scape of the psyche. It is shaped by the frozen states of consciousness, the existential images, that define and mold the self and the reality of our perceptions. And, when it finally emerges into awareness, the images and plots that are presented to our almost-waking self are reflections of these states. They are another way of seeing the self and the reality we create, except one less prejudiced by our ego.

When we are asleep the ego is asleep. The ego is turned off and free consciousness has reign. Awake we order all we sense into the conformations of our "preceptions"; but asleep, chaos reigns, and the structure that emerges as the dream is like a holographic image (in multi-dimensions) of the deeper self.

A hologram is an image that is formed by reordering the reflections of a laser beam from an object. As the light encounters the object, like a pebble dropped into a pond sends ripples to the edge of the pond, an interference pattern of the laser's wave form is created as the reflected and source waves interact. If we could stop the action in the pond and measure the ripples, we could reproduce their source. So too with the patterns of waves caused by the laser's encounter with the object, we can reproduce an image of the original object. This interference pattern is what is recorded in the hologram's negative.

Interestingly, the entire image is in any part of the negative; if you cut the negative in half, the whole image is recorded in each half, just somewhat fuzzier. The whole image is in any part of the negative, the universe in a grain of sand.

The dream is just like the hologram. The passage of the consciousness stream through the psyche, and its encounter with the frozen consciousness states, cause ripples and patterns. When they reach our awareness, they create images of the deeper self that formed them. The whole is in any part of the dream.

FLOWING WITH THE DREAMSTREAM

To the shaman/therapist, nature repeats at all levels and in all ways. In chaos theory, this is expressed in the self-similarity of fractals. Like the hologram, fractals repeat the basic conformation of their "parent" pattern. They repeat that same basic form over-and-over on different scales. The broad-strokes of nature appear as

flow. The guiding metaphor of dreamhealing is the concept that a river and the stream of consciousness have much in common.

Guiding a dream journey is like guiding a white water river adventure. Graywolf's River Teacher is also the river of inner consciousness (dreamstream) that flows through the dream-scape and self-scape. Both are full of rapids and turbulence, back eddies that trap one in circles going nowhere. There are calm, deep, peaceful and serene stretches and unexpected twists that open new vistas. Both the river and dreamstream inexorably flow to the primal ocean, the sea from which all life has arisen, the ocean of chaotic consciousness.

Like the River Teacher, the consciousness stream is full of boulders and rocks that define the river and make the rapids and turbulence. These boulders are the frozen images that define our dis-eases. The dream guide, like the river guide, undertakes to bring his fellow adventurers safely through the turbulence and beyond the rocks.

Water always seeks its own level through flow along the path of least resistance. In the river there is a flow of water that is part of a cycle. It is a process--and that is what the stream of consciousness is--it is a flow. Within the river what makes the rapids is the rocks, the obstructions. They are the hazards. They create turbulence around them. The psychic equivalent are the frozen states of consciousness, the frozen existential images, which obstruct the free flow of creative consciousness. They are what creates the turbulence within our psyches.

Basically, that is what a rapids is--a turbulence, where the flowing system is far-from-equilibrium. Of course, that is where all the excitement is in a river trip, and also in the dream journey. You have to get into the turbulence. Another interesting thing is that in a real river there are eddies or backcurrents that are created around rocks.

If you get into these eddies you just spin in a circle and go around and around in them until you can get back into the flow. In creative consciousness work it is the same thing. You find these little fantasy loops. They are always right in the middle of the crises, the rapids, and always reflecting this rock or this frozen consciousness right in the middle of the river.

This is where the idea of being imaginative as a guide comes in within the dream journeys. Typically, people will come for dreamhealing when they are in a crisis. In dreamhealing the eddies are the games they play, the patterns they get into, their self-serving fantasies, their wish fulfilling daydreams, or excursions in the "heavens" of their belief system.

When people speak of the outer river, they notice it is always the same, yet totally different in every moment. It is constantly changing, becoming different than it has ever been or ever will be again. It is so random that the same water you see at this instant will not be the same as the next.

That complex, dynamic flow is also the description of the consciousness flow--always changing, yet always constantly the same in essence. And it is also the description of

chaos--determinate indeterminacy or indeterminate determinacy. Always the same, yet ever changing describes fractal programs. They are self-similar, self-generating, and self-iterating.

The source of a river's water and its goal are the same--the ocean. The source of the creative consciousness flow is the vast sea of consciousness, that primal field of pure potential. We seek immersion in that creative consciousness for renewal and healing.

The creative consciousness or dream guide and the river guide are much the same. If you think about how they are trained you realize that no river guide can learn this skill from a book. The training is as much visceral as intellectual. The experience is best learned from those who are experienced themselves. Guides learn from other guides whose voices are rich with experience. They have to go down the river themselves, hands on, by going through the rapids. They have a guide with them the first few times to teach them the river fundamentals.

That is how the dream guide trains, by experiencing both sides of the process, experiencing first-hand the flow of the dreamstream. Facing the fear and pain means that any sense of anxiety is transformed into a sense of excitement. These regions become familiar, even in their ever-changing appearance. The training needs to be a total experiential training--not a rule-book training. Yet there are some guidelines (guide's lines) for river running which parallel the creative consciousness or dreamhealing process.

Good guides are intuitive. They intuit their way through rapids sometimes, reading the river and responding instantaneously with the right moves, easily and automatically. That is what you must do in the dream journeys. There are some rules that river guides use, such as "follow the bubbles."

The whole idea of going down the river, if you are a river-runner, is to "stay in the current." It is when you get out of the current that you get into trouble. If you are in the current you are going to miss the rocks, you are going to flow through most rapids. So, you've got to learn how to flow in the current.

This is an essential aspect of being the dream guide, learning how to be in that flow of consciousness, and stay in the current. Any good river guide knows that how you "set up" determines how you are going to go through that set of rapids. Setting up is the key to a successful run. You've got to set up where the flow is the greatest, where the most water goes. That is the best place most of the time. It is exactly the same with the dream guide, who also has foreknowledge of some possible obstructions. The point you go through is important, and depends on your intuition, your imagination.

Once you're in the flow you always keep your bow pointing toward the trouble. You always face the trouble. In river running you can power-pull away from the rock and avoid a problem. One of the essences of the dream guide is that you always face the fearful things, the danger, the pains, the frozen consciousness that appears in the

dreams as images. You always face the frightening moment, the dangers, as in the rule of river-running.

We wouldn't send anyone down the river without a guide. For one thing they would get trapped in those circles, those back eddies, spinning. They might get caught in a fantasy loop instead of the consciousness flow, because they don't know how to set up. Guides look at where the bubbles are to set up for the flow. That is like the intuition in dreamhealing. That is not a bad way of describing the feeling of intuition sometimes.

Reading the patterns in the river and the hidden variables becomes automatic. The dream guide watches the shapes of the frozen images, of the feedback loops, and from that he feels the patterns of the stream of consciousness, of the psyche. That is exactly what the river guide is doing.

Yet, the rules are not set, either for a river guide or dream guide. The guide uses them, but lets go of them in many situations. Each journey is different, unique. You don't always follow the rules. That is what makes a guide, sensing and instantly responding to the changing conditions. In a sense you can't have a textbook for either profession. You just have to listen to the river, the River Teacher, and see what it is telling you. The river always teaches about life and it is always teaching you about that flowing, dynamic process. The river provides apt metaphors of life, which can encapsulate an individual's life patterns.

Graywolf had a woman client who was very fearful, frightened of everything. She tried desperately to maintain control of everything. Through most of the journey she couldn't let go, and rode in the raft with him. Toward the last day of the journey, she finally decided to try it on her own in a tahiti (inflatable kayak). Graywolf went ahead and she followed. Half way through she lost her paddle, the tahiti turned around, and she simply decided to let go and floated through fine. In camp that night, she accused Graywolf of making her let go. But, no, it was the river!

Another adventurer from Mexico was prone to getting "stuck" in places. He'd been working on an anima issue, his feminine side. He would get trapped in situations and not give up. They came up to Blossom Bar rapids; one guide went through to show the way. Even with instructions on how to get through on the current, he got trapped on "Picket Fence," with water pressure so strong the tahiti was stuck there to stay. It wrapped around a big rock, and he could not dislodge it no matter how hard he tried.

He climbed onto the rock, clinging for dear life. Graywolf waited for the other guide, while the client continued his efforts to free the boat until he was exhausted. The guides finally got through "the chute", pulled hard and got into the back eddie closest to where he was stranded. They could only get part way there--enough to throw him a line so they could pull him around to climb right into the raft.

He had to jump right into a raging torrent of water. It took a great deal of faith to trust the guides, himself, and the equipment. But he did. It really took "letting go." When they got back, he began examining his self-defeating "fatal attractions" to certain kinds of women whom he knows are bad for him. He decided to let go of that, too.

The role of the guide is the same in river guiding and dream guiding. In either case you accompany the person through the rapids. You direct them how to get through the rapids. You watch, and go through them afterwards if they get stuck or go into a back eddie. The river guide provides safety. He doesn't take you places it is not safe. It is exactly the same for the dream guide.

The guides keep you away from those dangerous things that could flip you over, or hurt you. The guide has been through many rapids before. Perhaps they were not these particular rapids, but we know he survived others, and has developed some skill. (S)He's been through enough of them to read the currents, back eddies, and rocks. The dream guide is there to provide that security and that sense of safety in the process. The guide carries the person through their fears.

Another obvious link is that river running is done for recreation. You run a river of consciousness with a dream guide for re-creation. Dreamhealing is for re-creation, and the difference is only a hyphen. Re-creation is deep play in the most profound sense, and it is healing. By re-creating, re-forming ourselves we access new potentials, new possibilities, new vistas.

The river guide is always prepared to leap in if he or she has to. If someone is running some rapids and gets in trouble, it is the role of the guide to intervene. They have to be prepared to jump into whatever river is there. We deal with whatever comes up. When you head down a river for days, you commit to taking these people into your hands. There is the same commitment with the dream guide. It is a shared adventure.

The river guide or dream guide will often go down first to show how it is done. The guides never push, rather they invite or beckon others through. "Come on, let's go; I've been here; it's O.K." So there is a need for trust. If you're going to be a guide you've got to be trustable. You can't say "I've been there," when you haven't. You can say, "I've been through lots like it; let's go."

In terms of the journey itself, the river guide will tell people what is coming up. Maybe before they leave he will teach about safety. If you fall in the water keep your feet pointing downstream and trust your vest. If your feet are out you can fend off or push off any rocks. Keep your feet pointed toward the danger.

The guide lets you know when there is danger, and admits that it is scary, yet OK. The guide always has that sense of scared excitement in the most challenging runs, but still gets through. Both the river guide and dream guide prepare the client with this awareness.

In terms of physical preparation, in the dream journeys it is important to speak of relaxation. The dream guide might say things like, "*If you get in trouble, I'll remind you to breath,*" or "*Use your out-breath.*"

In preparing for a creative consciousness or dream journey, you let go of any ideas that you have about what this particular journey is going to be like. Its the same with the river guide--they know that river is always different. You never go through those rapids just the same way. They know that. It's always a new experience and you let go of what you know to experience it anew. Just the chaotic nature of the river itself assures that.

The good river guide doesn't go into the rapids with a preconception at all--"*Well, I came through here last time like this.*" Instead, they still keep their bow pointed to the danger, they still have to pull off from rocks, they still have to stay with the current. It's the same with the dream guide--let go of anything you ever thought you knew about dreams. Each journey, no matter how many, is a new river. The unexpected is expected, and this is what defines imagination.

This is where the dual-consciousness is important to a dream guide. You are in that flow of consciousness but there is still a kind of dual-awareness of participating in this adventure, yet remaining the guide. You don't take the trip for the client, he experiences for himself, though the guide facilitates or expedites the practical aspects of the journey.

VENTURING IN THE SLIPSTREAM OF CONSCIOUSNESS

What goes into preparing for guiding people into their dreams? There are just a few basic directions, but the finesse with which they are applied makes all the difference in keeping the process moving.

Some of the most important points to remember include the following: let the imagination flow; lead or invite the dreamer toward the fear and pain with reassurance; lead them away from ego gratifying fantasy by deepening past their personal belief system; enliven their experience by repeating key elements they have previously mentioned; use the basic "confusion techniques" to override or short-circuit the rational mind; and switch the focus of their awareness from one sensory system to another, for example, from visual to auditory, or olfactory, or feeling.

Just as crucial is your preparation of yourself. Begin by centering, breathing deeply, and emptying your mind of any preconceived notions about the dreamer and the dream symbols, or where the journey might lead. You don't want your personality to get in the way of the process. You may create a neutrality within yourself, and paradoxically, by not being there you are more totally there.

Contemplation or meditation can help you shed any attachments to the meaning of the dreams or the outcomes. For example, at Asklepian dreamhealing ceremonies the guides may dress up as priests or priestesses, yet they are not claiming to

represent God. The healing notion here is that god is within us all. Perhaps you have to "borrow" me to see that about you, but the priest is only a mirror. As long as we are all aware of that, its OK. Mirrors don't take themselves very deeply or seriously. They just reflect back what is.

When, as guide, you listen to someone first describe and then re-enter their dream, pay attention to what you are naturally drawn to in the dream. It may be certain symbols within the dream, or it may be an aspect of the ground of the dream, its background. Once again, you must approach the person's dream with an open heart and shed your own issues or keep them in abeyance.

To arbitrarily assign a particular meaning to a dream before the dream journey, and before hearing all of the dreamer's personal associations to the imagery is comparable to "mind rape." Let their drama have all the time it needs to unfold before venturing any amplifications from your own store of knowledge and wisdom.

A symbol may appear in the initial description which you think is "fraught with meaning," or maybe one of your personal favorite images comes up such as your totem animal. However, this may not be the best doorway for the dreamer to enter. When opening to what you are drawn to in the dream, try to keep your personal likes and expectations out of the process. Remember, the dreamer is doing this work for him or herself, not for you. Just go back to the basics, like encouraging movement toward the frightening prospect. Invite them into the fear and pain with reassurances.

After a while of practice your intuition becomes quite trustworthy. Then, after the session, you might even venture to amplify certain symbols adding a mythic dimension to their presence in dreamlife. Some of the basic Jungian archetypes which might come up include figures representing the shadow, or anima and animus (the inner mate). Others such as the elements, Earth, Air, Fire, and Water are also significant.

Once again, when listening to the dream, clear your mind and open to intuition. Notice what stands out for you. Take a moment to reflect on why you are drawn to it. Does it seem intrinsically important in that dream context, or the context of their life situation, or is it merely fascinating to you personally? As they recount their dream, watch their body language, inflection, and words they misspeak or stumble over.

These signals can provide clues for an entry point or inner doorway that shows fear or conflict within the client. Remember to generally move the person toward the uncomfortable parts of the dream, giving permission and providing some sense of safety for the unpleasant event to manifest, rather than avoiding it. Remind the client you will be there along with them to guide and comfort and see them through to the conclusion of the journey.

There are three processes going on inside you as dream guide. It is important to know which one you are tuning in to when you are going to work on a dream,

particularly someone else's dream. Of course, one of them is the intellectual process, which is your mental information about what symbols mean.

You can draw on your whole background experience intellectually making relationships between what you know about the person and what their dream symbols are saying. That is an interesting process, and at some levels it is a useful process because dreams can be revealing at that level. The therapist can derive useful clues on where to take the therapy in other modalities besides dreamhealing from these symbols.

THE DREAMGUIDE'S ISSUES: THE WOUNDED-HEALER

Another level comes from the subconscious and involves that which touches on your own "stuff," your own issues. We all have our personal wounds. Inside all of us are unresolved issues based on our life experiences which we have not quite worked out yet. Most therapists know when they are touching their own stuff because they are drawn to it. The remedy is to make sure you have a place and time for your own process work.

When your stuff is "up," you are attracted to it in another person. This same mechanism operates in romantic relationships where people with the same issues, even though they may be hidden, couple up. The unresolved issues, such as co-dependence can be a very strong draw which is very different from the draw of true love.

A lot of therapists wind up getting people to the point of their own issues and can't take them further. Because they are drawn to their own issues, they subconsciously or inadvertently direct their own clients to studying the therapist's issues in themselves.

The third level of internal processing comes from genuine intuition, or intuitiveness. It is easy to tell the intellectual process from the other two. But it is not easy to tell the difference between your intuition and your unresolved stuff. So take a close look at what you are attracted to in others' dreams, being with that reflective awareness very personally. There is no objective answer to this question. Much of the dreamhealing process involves making subjective choices and distinctions and acting upon them with faith and courage, and trust in the process.

Look for the emotional, intellectual, or intuitive quality of the draw. But realize that even true intuition can come as a mental or an intellectual thought. But it seems to come from "out of the blue" rather than building as a string of rational thoughts. There may be almost a perceptual "purity" to it, instead of it carrying an emotional charge. On the other hand, it can present with a lot of affect, but the strength of that charge does not come from your personal involvement with the issue, symbol, or image.

Sometimes people come who have issues that mirror your issues, and you are together in order that those things become resolved for both of you. So you do not have to pretend that you don't have issues. This is more likely to come up if you find yourself working with friends and acquaintances, rather than as a professional. It comes up in the personal arena. In the dreamhealing session you do not lay your stuff or your interpretation of their behavior on them, but your similar issues may illumine things for you more objectively. **WHILE YOU ARE THE GUIDE, THE FOCUS REMAINS ON THE CLIENT'S NEEDS.**

However, the question is not so much if it is valid to deal with someone who has your issues. Rather, it is a question of how you know inside of yourself whether the issue is your, theirs, or both. If you know it is one of your issues, then you know you are on dangerous ground, and probably have some attachments to outcome and control. You stand a good chance of getting stuck on some detour to nowhere in the dream journey. You can't lead them past the point you are stuck yourself. So watch out for this. Remember to ask yourself if they are doing this work now for you, or for themselves.

In this kind of dreamwork it is very important for you to keep your issues out of it, and not to lead nor be attached to a specific outcome. The point is to create a flexibility for times when you are conflicted and can't be neutral. In chaos theory, as applied to biological evolution, flexibility means adapting "*rapidly and successfully by accumulation of useful variations,*" (Kauffman, 1991).

As dream guide, it means you develop a repertoire of alternate suggestions to move your client and yourself out of the "stuck" place. One of the easiest is to focus them in on another sensory system, for example switching their focus from visual to auditory, or visceral. Another is to go deeper by giving suggestions which confuse their rational mind, which opens them to a more receptive state.

THE CRUX OF THE PROCESS COMES DURING ENTRY INTO CHAOTIC CONSCIOUSNESS. AT THIS POINT THINGS USUALLY GET WORSE BEFORE THEY GET BETTER. Here you can give suggestions to intensify emotions, and to reassure the client you are there to provide some sense of safety. Let them know they won't drown, even though awash in the intense imagery.

After all, this becomes a well-known experience for you, and you learn to trust the healing nature of the state. Just let go and "float" down to the next calm spot. It is OK to let go. Create your own particular way of letting the client know that they can accept and surrender to that state. Help them amplify awareness of that state by evoking more detail from them.

While you are guiding, just let go when you begin to enter those states of chaotic consciousness, and stop guiding. Just see what emerges out of that chaos -- perhaps a new image, a new structure, a new existential state of being.

THE NEW STATE ALWAYS SEEMS TO BE A REMARKABLE IMPROVEMENT, A VERY HEALED IMAGE. At first, we could not understand

why. We were speculating that it was part of the natural evolutionary process. Or perhaps it comes from the safety of the therapeutic setting. Chaos theory shows that *"certain complex systems tend toward self organization and are marked by the capacity to evolve,"* (Kauffman, 1991). So that may be part of the answer.

The nature of strange attractors can be viewed in the metaphorical as well as mathematical sense. They are almost like nuclei around which the chaotic image reforms, creating a new structure. One of the ideas expressed at the 1991 inaugural meeting of the Society for Chaos Theory in Psychology, which took place at Saybrook Institute, was the concept that the therapist him or herself might BE THAT STRANGE ATTRACTOR.

The personality of the practitioner is always a variable in any psychological experiment. We had speculated that the safe environment might be the strange attractor, but did not take it that one step further to "psychotherapist as strange attractor." But that makes sense in light of the charisma mystery-people emanate.

The deduction is that whoever creates that safe environment is a "therapist." Both clinicians and theorists at the conference were supportive of this idea of therapist acting as strange attractor, even though there is as yet no scientific proof of that.

If, as a dream guide, you are indeed the strange attractor around which that co-creative process of re-organization of a person's internal imagery revolves, it demonstrates how important it is that you have your own issues resolved. You will probably never solve all of your problems, but you can do your "original pain" work, and provide yourself with a time and place for honoring your own process.

As dream guide if you are a flawed attractor, that flaw is going to be built in and perhaps even magnified. We have known in psychology for a very long time, that the client frequently takes on the neurosis or the problems of the therapist, but in their own way, of course. The client inevitably begins taking on a lot of the therapist's characteristics or personality traits.

The unconscious absorption of the therapist's traits happens automatically to a greater or lesser extent as both the self image and worldview of the client is changed, broadened, and enlarged. In the process of therapy, the client is clearing emotional blocks, reclaiming frozen feelings, and lost or abandoned parts of the self. This process is experienced largely through images and sensate experience which fuses mind, imagination, and feelings into a gestalt.

The training process of the therapist grants access to a deeper experience of the self which appears to be contagious. The therapeutic personality has the emergent capacity for curing dis-ease because the mere presence of a healthy personality acts as a tonic or general medicine for those who contact it. In other words, if you are truly individuated, you can trigger off the same process in other people.

To be individuated means you express your unique essence most fully, rather than learning and practicing by rote. It means you have explored the heights and depths of your own inner world, integrated that into the context of ordinary life, and freed

up your creativity. This process is contagious because when a person meets someone whose worldview is more expansive, their limitations automatically begin to dissolve. Through contact with a whole person's worldview, new possibilities become obvious. It is a truism that few know their own capacity.

THE SHAMAN IS THE ARCHETYPE OF THE WOUNDED-HEALER AND IS PERCEIVED AS HAVING MANA OR PERSONAL POWER FOR HEALING AND VISION. In today's society the shaman-therapist functions in much the same way. It is not possible to practice therapy without first having worked through your issues and your wounds. Doing therapy on someone else will bring up your core issues if they are unresolved.

The idea of wholeness equating with healing is inherent in the ancient alchemical notion of the PHILOSOPHER'S STONE. One who has been able to make the incorruptible stone within himself has united the opposites within, including masculine and feminine, and the depths and heights of the personal and transpersonal realms.

Unreconciled opposites manifest as conflict, yet carried together, distinct but conjoined, they manifest wholeness and increased psychological health. Once you synthesize a new viewpoint on reality, you discover a new sense of well-being and contentment. This is actually more of an on-going process, not a final goal. It is a process/goal. You can expect many rounds of this same process in life's perpetually changing circumstances. As you let go of an old worldview, you go through the birth canal and regenerate in a new dimension of awareness. You have a new self image and many new potentials in life. Each time you go through the cycle you gain awareness and maturity.

Much of this process goes on automatically in your dreams. Your personal growth is tangibly affected when your old self interacts with new states of being that arise spontaneously in dreams and dream journeys. Your new identity comes both from your conscious and subconscious experience, and the shift is from emotions to imagery to awareness. Your expanding awareness is in part autonomous, with a high degree of independence and self-direction.

If you come upon negative images in your dreams, be assured that successfully confronting these, facing your fear and going through it, initiates an expansion of awareness and changes your self image. Positive figures in your dreams may be used as a resource, integrating their characteristics into your actual behavior and identity.

True knowledge of yourself is the knowledge of the objective psyche as it manifests in dreams and other subconscious imagery. To meditate on this is an effort toward self-knowledge. This is not necessarily in the interest of the ego, but lends some objectivity in answering the question, "Who am I?"

There is a tendency in the helping professions for people to consider themselves "healers." This is an especially popular term among alternative health practitioners

whose practices range from body work, to crystal healing, to channeling, breathwork, naturopathic medicine, rebirthing, ghostbusting, to transpersonal psychology, and more.

Each "healer" speaks of myth, magic, and mystery and offers up their special wisdom as a healing balm. Thus they are likely to capture and contain the projections of others. Their unique personalities act as a "hook" for archetypal projection of the client's inherent healing resources. The projection mobilizes them. There is a great responsibility which comes with declaring oneself a self-styled healer. For the dependent, it is their task to carry that projection for a while, until the client can re-own it and develop a relationship to the inner healer.

It is, in fact, this inner healer which truly does all the regenerative work in therapy. The therapist simply helps the client access it. But it is the responsibility of the therapist not to kill the projection prematurely, for that is murderous to the soul. In time, the client truly begins to experience that all the healing resources are within.

The therapist as a strange attractor functions as the nucleus of an unpredictable yet deterministic process of growth and healing within the personality of the client. The therapist functions as the attractor for a client who is far-from-equilibrium.

THERAPIST AS STRANGE ATTRACTOR

Scientists are using chaos theory in psychology to uncover the fallacy behind the old notions of observation leading to predictability in behavior. We need new nonlinear ways to think about personality. The old linear models rarely could predict the specific behavior of an individual.

Yet, people tend to behave in characteristic ways over time and in different situations, within their own unique limits. Still, sometimes individuals are inconsistent within themselves, due to internal conflict or new input. Chaos theory might disclose the hidden order in these variable patterns.

Some personality theories are based on traits and others on the changing dynamics of states of consciousness. But whether you consider traits or states as the stable base of personality is arbitrary. "*The effect upon observed behavior is the same; that is, stable internal factors generate behavioral continuity,*" (Middleton, Fireman, DiBello, 1991).

A personality model can be totally deterministic, and yet not predict specific behavior. Yet ordered chaos can predict trends. The strange attractor can be viewed as fostering trends or events in a certain area of influence, but you can't predict exactly what at any given time or place. This may provide some evidence that the therapist functions as a strange attractor in the psycho-social field because of unique personality traits.

Within the therapist's own personality (and any other individual for that matter), there is evidence to show that chaos provides an opportunity for behavioral change,

adaptation, and self-organization. A personality trait, such as compassion or connectivity, may function as a strange attractor of associated behavior. One again, this means that one becomes therapeutic by expressing one's unique wholeness along with skills, rather than learning therapy techniques by rote.

In the complex dynamic system that is the therapist-client relationship, the idea is that the therapist has a certain magnetic quality that sort of pulls the being or the mind into a region of peace, stillness, gentleness, or safety, togetherness, and integratedness. So when the client goes into the state of chaos there is a magnetic pulling, and a feeling of "it's OK to be here." It is experienced as a settling into a region of chaos that does not result in returning more dissociated and disturbed, but enhanced, more integrated.

Not every therapist has this sense of integration within, which can be perceived by others as a heart-felt experience. One indicator seems to be the therapist's need to maintain "control" of the situation. Based on this, the need to address any issues of co-dependence becomes obvious, since extreme need for control and boundary issues play a large role in this syndrome. They undermine the necessary flexibility. Therapy is like any intimate friendship, with one crucial difference -- the whole interaction revolves exclusively around the emotional needs of the client, not the therapist.

The dream guide must unite the opposites of gentle-yet-selfless guidance with letting go and trusting the process. The magnetic quality of the therapist may lead to instinctual choice of one practitioner over another when a client is "shopping" for a therapist. It might be viewed as a "prepared heart," which may not be perfect but resonates with the client.

A DIFFERENT REALITY

Our perceptual systems, our sensory systems have as a prime function the task of creating some kind of order out of an otherwise totally random, confusing morass of information that is available at any moment of time. We actually have trillions of bits of information bombarding us at a given time.

Our senses and perceptual patterns create some type of reality structure out of that. In this sense you can consider our perceptions and our senses, our genetic makeup, how our senses operate, as a strange attractor. Because this is essentially what creates some kind of order out of totally overwhelming input.

IN OTHER WORDS, WE LIVE IN A TWILIGHT ZONE, IN ESSENCE, BETWEEN ORDER AND DISORDER. What creates order is our presence, our being, our perceptual patterns, our own sensory systems. As we share common genetic backgrounds, we tend to have senses which are very similar. Maybe we taste things a little differently than someone else, but basically, unless medically impaired, we taste vinegar about the same. We taste sugar about the same. And so we create similar realities.

We come to a consensus about reality. Yet our common agreements about reality are conditioned by our shared cultural trance (Tart, 1992). They may be based on that essence of strange attractor. Deep down inside what holds our view of the world together; what makes it consistent? How we store that information then becomes important--and more fundamentally how it forms. The reality we form basically emerges from how we are living.

How do we get that view of reality? When we begin to form we don't have any consistent prepared pattern. Yet almost everyone has seen that babies have distinct personalities even as newborns. Formative experience begins in the womb.

We've got all our perceptual mechanisms, we've got the senses, but we form our existential position, or view of reality, our beliefs about self and world, essentially from our experiences. They are based on how we perceive, and how our senses react to those experiences. That stores inside of us. Especially in the preverbal stage, it is stored as images. The nucleus of that memory, that position, that consciousness, is a multi-sensual imagery which describes the nature of the self and the world.

If the world is a really threatening place, and Mom and Dad are terrible, and they beat me a lot, I grow up with the existential belief that the world is a dangerous place, and is going to hurt me all the time. I'm somehow deficient or unlovable. It's more than words. It is an image, and not the normal image you might think of.

It might just be colors, it might be a swamp! Who knows what that image is like in the dream? When you get down to it, it may surprise you first how complete it is, and how utterly alien it is to any thing you think of as an image of the world. And that essentially is the order that has been created out of chaos at a very formative stage, a young age.

The strange attractor has been essentially a combination of a person's sensory patterns, perceptual patterns, and the environment and what is happening to them. It forms the basis of an individual's personal mythology, which forms the basis of the belief system, which forms the basis of how we think and feel about things. This in turn determines how we behave, which then feeds back in a circular way from our belief system to our behavior. The circular pattern makes sure everything, positive or negative, gets confirmed.

So, if you go deep beneath that belief system, down to the deepest existential image, then you are at a place where you can really do some changing. We noticed in dream journeys and other consciousness journeys, that **WHEN YOU GET DOWN TO THAT EXISTENTIAL IMAGE--THE VERY BASIS OF THE IMAGE OF SELF--IT IS SURROUNDED BY FEAR AND PAIN, BECAUSE THAT IS WHAT USUALLY FREEZES STUFF IN PLACE. When you get deep down to that image, there is always a doorway to another deeper level.**

Since that is the primal image that formed out of the original chaos, the blueprint for personality, the doorway inevitably leads into the chaotic state. When a person is

able to let go of the old image, and truly take their awareness into that chaotic state, it begins to reform.

Chaos theory states that there is always a structure in the chaos. Always a new structure, a new form emerges out of that chaoticness. The Buddhists speak of the death-rebirth experience: in order to be reborn you have to die. You have to enter into the chaos in order to be reborn. This is referred to as dissolution. It is the fundamental level of restructuring which happens in this work.

In developing the dreamhealing process, the question has always been, "What determines the new image that emerges in physiological, emotional, and behavioral change?" Chaos theory provides the clue that there is this concept called a strange attractor -- an energy field, or something that somehow provides the nucleus around which the new order forms, that determines the shape of the new order.

It seems that is what the therapist provides, partly through the environment, but partly through the idea or experience of co-consciousness. An important part of this work is the co-consciousness, the fact that as the dream guide or the consciousness guide, you are actually going along with the person.

So, in essence, as the dream guide, you really go into the chaotic consciousness with the person you are guiding. You are taking a structure in there with you, but no specific agenda. At the same time you are letting go and entering that chaotic consciousness, as the therapist you are still maintaining a degree of integrity and order within yourself. As you take the person in, it seems that becomes sort of the strange attractor which allows the client to begin to reform their basic existential image of self.

To some extent, it is going to look like the therapist's existential image of who you are. It includes a higher degree of unconditional positive regard for yourself, which the therapist has modelled. To some extent, the client's response is going to effect the therapist's existential image of the world through feedback. The psychosocial process is dynamic and interactive, and both parties are changed to some extent. When two people are in proximity, they literally exchange atoms, such as gases, with one another.

This is why it is so important, that as a therapist you are solid. You provide a strong view that the world is OK. *"I can deal with it; it is safe; even if it is not safe, I can still deal with it inside. I can center; I am balanced and peaceful."* And if you can provide that, it form the nucleus for the new existential image for the person you are working with.

You have provided this stable core as the therapist in many ways. You provide it by modeling stable behavior that is still flexible, creative, and spontaneous. You do it by the way you set up your office, what pictures you put on the wall, what music you play, how you touch them, how you greet them.

But you provide it on a deeper, more profound level, not just the surface level. Consciousness is transpersonal and has much deeper connections with people. The

therapist as nucleus or magnet is very reflective of who you are, especially during the co-consciousness excursions.

CHAOTIC IMAGERY

There seem to be two kinds of chaotic imagery. When we take people on journeys, when we go into chaotic consciousness there are two types of imagery that demonstrate the state. One of the ways of knowing you are in chaotic consciousness is when you are faced with a blackness or void, or a gray or monochromatic color. They enter into that, or maybe a sense of emptiness. By giving over to that emptiness, or grayness, or that blackness, all structure dissolves and it is like a nothingness. This is a form of chaos which tends toward absolute emptiness or ZERO.

The other form of chaos appears when the journey leads into a spiral. That is one of the most common forms of entry into this chaotic consciousness. People spot a spiral, they enter into that spiral, they start spinning, they get totally disoriented, and become almost overwhelmed. They may become very dizzy or even ill. That form of consciousness is an overwhelmingness, or infinity. Out of either one of those we seem to create the essence of the new structure, the essence of the new reality.

We are not really sure they are different, rather they are probably just different sides of the same circle, seen from different perspectives. On one side it tends to zero, and on the other infinity. This is not unlike the Gnostic concept of the plenum and the void, being one paradoxical union of opposites.

A plenum is the opposite of a vacuum, being fully occupied in this case by imagery swirling in a chaotic way so it is not differentiated. So much information is there, it looks chaotic, overwhelming. It is a fullness rather than emptiness. In terms of physiology the plenum represents hyperarousal while the void is hypoarousal.

A variation of the spiral, the whirlpool, vortex, or tornado, tends to become overwhelming, while a solid color tends toward the emptiness. But it can be both. Sometimes the emptiness leads into the whirlpool, and vice versa. When you have been there before repeatedly, you come to trust these states implicitly.

The client does not usually know that s/he will be OK, and that is what takes courage on their part. You can help bolster that courage and confidence with your demeanor and suggestions. It may be more empowering to view the therapist-as-strange-attractor as catalyzing or triggering the same process in the person undertaking the journey, but that is a more old fashioned perspective.

The therapist may perceive herself as the reforming agent of the process. However, it is truly mutual, and co-creative in the deepest, most critical sense. The guide always maintains respect for the voyagers' innate capacity to heal themselves.

As the therapist, you must be careful not to get stuck in either your own or the client's belief system, or at other various levels. One of the best ways of initiating a journey is to totally empty your mind, and become that completely neutral force, and that is not a contradiction in terms. It just sounds that way because "neutral force" is only paradoxical when you try to put it into words.

Take yourself beyond any belief systems, beyond any expectations of what you are going to see on the journey, where you are going to go, and how the person is going to come out of it. In other words, totally divorce yourself from attachment to direction and outcome.

CO-CONSCIOUSNESS: WE TWO ARE ONE

The co-consciousness and co-creative process is a neutral creation. The therapist can provide that neutrality by coming along without an agenda, or preconceived notion, or belief system. There is no attachment in that state to anything except being on that journey. You must be willing to go down into that chaos with the other person, while at the same time you are maintaining an integrity within yourself. That neutrality allows freedom.

At the same time as you are influencing the new existential position, i.e. "*the world is an OK place, and I'm OK,*" you are not influencing any specifics. You are not saying, "*this is what you should do and be, or where you should go.*" You are not operating at that belief system level. You are operating at a more fundamental level.

You just provide them with the basic sense that you are peaceful and serene: "*The world is an OK place, and no matter what is happening you are going to be able to flow through it.*" And this is really the nucleus or the core, and it is a neutral one, though it is charged with a guidance that is empowering for the client.

If you look at Taoism, one of the very fundamental aspects is that out of the chaos came the yin and the yang. Applying that to this process, except in reverse, the client and guide come down until there is just this paradoxical yin-yangness of the co-creative process, and then that dissolves into the chaos. It then comes back out.

It is sort of like a dip into chaotic consciousness, and then out--a baptism. As contributor at that last possible instant before you cross over into that chaotic state with the person you are guiding, you are laying the foundation as the strange attractor for what comes out. Using this model, we are only trying to provide a consciousness map, so we don't get stuck during the process work.

In the dream journeys we may momentarily leave the co-consciousness, pop up into the rational mind and check where we are against the ego model, especially if we are stuck somewhere. The journey is intuitive, but it requires some structure for the process to maintain its form. The maps are not the journey, but they are useful. Reassurance for the client can provide "drops of oil" for the process, so that what was stuck can simply "slide past."

There is, as in Buddhist meditation, a point where you drop all concepts and conceptualizations. Yet you find in Buddhist literature voluminous reports of the different states encountered on the inner journey. All really good therapists have models of how they work, and many write books about them. But frequently under observation they do not seem to be "following" their own models.

After a certain point, the assimilation is so complete that the intuition can come in with a lot of latitude for dealing with unique situations that may come up. There is little need to follow even your own policy here, but rather simply do what you already know at the heart-felt level. This "knowing" is actually a combination of your essence, training, and intellect. This may feel riskier than "canned" therapy processes, and you may make some mistakes, perhaps needing to backtrack. But ultimately spontaneous guidance needs to be included.

It is much like learning an art-form. You learn the basics and the techniques, and then just let it flow. Do what you know from the gut-level. There is no need to be a slave to the intellectual process. It is much like when you climb Mt. Everest, you need a base camp, then you go beyond the safety and structure of the base camp. The consciousness maps just provide a way we can communicate and teach on the intellectual level.

We don't need to hold the intellect in disdain as do many new age types and other practitioners. Sure its good to get in touch with the body, feelings, and open the heart center. But they are not mutually exclusive with exercising your mind. That is just another emotional reactionary state based on a belief system. It is a reaction to our culture's overemphasis on the rational mind for 200 years. There is no need to be at war with it.

Intellect and intuition are actually part of a common field. It is a valuable part of our psychic balance in life, and it is important to integrate it, not reject it. It does not have to dominate. It is an integral part of our being, and a powerful tool. Keep it as an integral part of the process. It can give you a structure beyond which you can journey. It provides a vehicle. It lets you know, for example, when you are stuck in your own issues, so you can back off.

One of the ways we can realize that we are stuck during the process is by becoming aware of a frustration within. Graywolf has noticed that as soon as he gets into that frustration, he knows he is not really frustrated with their "stuff," but himself, because he is stuck there too. When it comes time to check back with the map, very often that is the opportunity to drop that attitude and back up into your neutral space again.

THE DREAM GUIDE AND CHAOS THEORY

There are some sessions that in spite of time, space, and years remain memorable sessions. Graywolf's first spontaneous experience of leading someone into the swamp--into the chaos--in the co-consciousness state was such a session. It changed his perspective and philosophy.

The amazing thing at that time was that the client went through remarkable changes and only needed to come back a couple of times. Prior, it had looked like long-term therapy, not brief therapy. Providing some structure for the process allows you to go even deeper, allowing for restructuring of the primal self image. The model is still evolving.

THERE IS A SENSE IN THESE SESSIONS OF SOMETHING BEYOND, BEYOND CHAOS OR WITHIN IT, WHICH RESHAPES THE BIRTH OF REALITY AND THE UNIVERSE ITSELF. We don't know what it is, but we know it is there. Someday we will have a model for that, and proceed from there. Hopefully, it will give us permission to go to an even deeper level.

These models or consciousness maps are not "sacred truth." But if you want to become a musician, you have to first learn how to hold a guitar, or blow the flute, etc. Once you learn the basics you can be creative, but there are basics you need. It may not be important for you to learn how to read music. What is important is that you know how to hold the guitar and play some chords. Then we can create music together. And this is what these models attempt to convey.

The concept of the guide or therapist hopefully serves to clarify some aspects of the process. When we first started trying to describe this process, all I knew was that we went somewhere, and people experienced something there. They came out of it changed, emotionally and even sometimes physically. In order to teach, we needed a model that provided a language that people could understand relative to the process.

Right now not many people understand the scientific notion of chaos or the language of chaos theory. But the importance of chaos is that relatively soon it may be understood by most people. It is a major revelation and revolution in science about the basis of reality, much like relativity in the early 1900's. Ultimately it means we, as psychologists or people helpers, can stop studying human behavior only from the linear perspective or analytical mode, and explore nonlinear dynamics which are relevant to the whole person.

Humanistic psychology posits that life is lived subjectively, and chaos theory seems to validate this notion helping describe and understand behavior, experience, and intentionality in nonlinear terms. In the creative process, humans attempt to bring values into existence, whether those values are artistic, social, technological, or spiritual. And this process of human creativity may have an underlying chaotic process which selectively amplifies small fluctuations and molds them into coherent mental states experienced as thought.

Chaos theory is ultimately a language which can be used with mathematicians, biologists, engineers, physicists, chemists, and anybody who has experienced subjective chaos in their lives. People are tuning in to this new theory to help explain things to themselves, personally.

That is why we choose to use the language of chaos theory, like strange attractors. It just seems to fit. Now, one of the questions that confused us was "why when we lead someone into the state of chaos, don't they come out worse?" You are letting go of all structure, so why isn't it worse, instead of inevitably better, a better self image?

The use of the word 'strange attractor' is just because there is a parallel in chaos theory, not because this process was derived from chaos theory. It was not based on it, and didn't evolve from it. It is based on empirical observation. They are analogous. This is how things structure out of chaos through self-similarity. It produces self-generated spontaneous order.

The innate OKness of the chaotic state is uncolored by personal experience. The guide serves as the "silver cord" for going deep into that process, yet being able to always find a way out. As the guide you are the anchor or contact back with ordinary reality.

It is OK to stay there in the chaos during the session, and then move on when it becomes appropriate. What emerges from that forms a new beginning. Furthermore, what happens at the client-therapist level is reflected in the larger setting at the group, social, and international level.

We live in very complex, dynamic situations, which are subject to the effects of small fluctuations in initial conditions. Big changes can result from small fluctuations in individuals. Even our whole species is coming into a new relationship with the planet. We don't know what the new strange attractor will be, but we seem to be going into the chaos now, politically, socially, and economically.

The more a system tends toward one polarity, the more the internal energy of that system tends to want to take it in the opposite direction. In other words, the more rigid someone is becoming, the more susceptible they are to the total lack of rigidity, or collapse. The more structure, the more order, the more likely they are to go over into the chaos. We live in a twilight between structure or order and chaos.

Being stuck in either order or chaos is no good. So we shouldn't think chaos is the greatest thing. Jung also observed this tendency in individuals toward 180 degree shifts. He termed it *ENANTIODROMIA*. The path through, or the Way, lies between the opposites. Life is lived in a maze of opposites. Swinging recklessly back and forth leads to inner turmoil and conflict. This is a continual reactionary, rather than creative state. Or we get stuck, or go into denial.

Genuine transformation comes through the new image or transforming symbol, which harmonizes the opposites, and creates completely new possibilities. We are constantly creating, and once a structure gets created we need to allow the dance of Shiva, from structure to nonstructure--the dissolving. It is the flow that is important. Destruction, recreation, destruction, recreation. In the dream journey, fighting the process of letting go can result in physical manifestations like jerking, or the ego defense of fantasy cycles.

ENTERING THE FLOW

When Graywolf takes people on the river for whitewater rafting and dreamhealing, he has the help of the river in demonstrating what flow means. A person can paddle and fight the river all the way, or find that flowing rhythm. The river includes both rapids and still places. It wouldn't be any fun at all if it were all rapids or all still water. If it is all rapids, it is tiring; and if it is all calm water it is still tiring because you must paddle all the time. The flow is the issue, not being here or there.

As the dream guide you are not helping people to establish a permanent structure. There is no point to that. There is no end point to this work of dreamhealing--no conquering hero ("strong ego"). The goal is not even to feel better, or any particular goal. The structure you are developing now may reveal flaws in itself, then you let that go back into the chaos and dissolve. It is OK to reform a better structure for yourself. It is not so scary when you realize the chaos is not a permanent state.

Dreamhealing is similar to LSD therapy in that it helps the client experience the opening to self which lies beyond ego death. There is recent increase in LSD research again. When it was banned in the early 1960s, it was being hailed as the treatment of choice for those who didn't respond to other other psychotherapy techniques. Now it is being used abroad for treating anorexia, obsessive-compulsive disorders, depression, and addiction.

The lower doses used enhance the therapeutic process by making memories and repressed feeling more available. But as in dreamhealing, the presence of the guiding therapist is crucial. In OMNI, Oct. 1992, Peter Baumann, M.D. states, "*If a patient feels fear during the trip, they might do anything to distract themselves or run from that fear. The therapist urges the patient to a certain degree to stay with it, to examine the problems, understand where they are coming from, and see them through.*" They report a virtually universal increase in self esteem among their patients.

DREAMHEALING ACCESSES THE SAME STATES AS LSD THERAPY WITHOUT DRUGS. Feedback tells us that many clients have immediate results where other method have failed completely. This has even been physiologically documented. Using biofeedback monitoring Graywolf has guided people into deeper theta states than they achieved with their own therapists. Now we are investigating the practice of dreamhealing in float tanks. One group has developed a very thin membrane which allows for the sensory deprivation experience without undressing or getting wet.

The nature of reality is an endless flow between the opposites. The subjective comfort of any state is determined by where you have been stuck--if you are stuck on the non-order side, flowing to the order side will feel good. If you are stuck on the order side, flowing into the chaos is liberating, for a minute or for a while anyway. Then flowing to the other side is even better.

But you can't go into the dream journey with any pre-set notion. You have to be with each individual and their unique experience of the process, whether it is comfort or bliss, or terror. That is the neutrality, and the co-creative process. It can be different for each individual each time. Each dream journey is uniquely different.

In Buddhism, as you get more and more focused in meditation, you begin to see how things come into existence, and how they fade away. The mind gets so sharp you can see the way reality comes into existence. It comes into sharper focus. Everything slows down so you can see the process.

The images get created for a period of time, and then they dissolve. At that point, the mind usually gets attached to the process and is really curious about it providing there is not a lot of emotional content to it. Even if fear comes up, you just be with the fear and learn to see that emotions are just creations which also arise and ebb away. Emotions come into existence and fade away.

Once you understand that you can begin exploring other places, without so much emotional content. For example, as the mind gets into a pain in the leg, the mind begins to focus on all the destruction in the universe. Moving from the specific to the general, there can be imagery of destruction and holocaust. But due to the poise developed in training, you just stay with that terror and watch it come and eventually go. Gradually you get led into this nothingness, which many people actually enjoy. One of the reasons people don't want to hang out there is because they are afraid they will never make it back. There is something they are hanging onto, an attachment. This is the same attachment Krishna spoke about in the *Mahabharata*.

The unique aspect of dreamhealing over Buddhist meditation is that you can actually have someone there with you, in co-consciousness, when you are going through these things. Its sort of a guided tour of the bardo states. It takes the interactive verbal process, and even a degree of psychism, to keep pace with one another.

During a long retreat, people begin to discover the creation side of internal imagery. Reflecting into the outer world, one can then see the coming-into-existence within something as apparently mundane as a green leaf. It can become the most marvelous experience, containing the whole of creation within itself. Dissolution and regeneration leads to an experience of ultimate potential.

You can move between the states, which is what makes up life. It may feel safer to explore with a neutral, empowering guide. During a dream journey, be sure to give the client plenty of time to respond in freedom by waiting patiently. Patience comes from trusting the process, and trusting the person you are working with--not to be safe for you, but to find their internal healing resource. If you are there totally, you simply do not feel irritation in that state.

To some extent you are actually, as guide, in a trance state or altered state yourself. Stay alert enough to watch for someone entering into a fantasy loop, for then you

have got to do something. If it becomes a dynamic system that is doubling back on itself, and it is feeding ego gratification fantasies, it requires intervention or guiding. It is much easier to avoid these pitfalls in the first place, than to backtrack the client back out of them.

We have a philosophy about procrastination, and it really applies to being a guide. We don't see procrastination as all wrong. About a third of the time if you procrastinate things will really screw up, so you've got to do something. Another third of the time, if you procrastinate nothing much will happen, either positive or negative. Another third of the time, if you procrastinate that is exactly what you have to do in order to free the system and make it better.

The secret is knowing when to procrastinate, and when not to procrastinate. That again is probably the essence of being a guide. Most of the time it is appropriate to hang in there with the client, but there are times when it is really best to say "break it here," or "go here," instead of going around and around. It is knowing WHEN to do that. You can give them the sense that they don't have to be stuck there, that it is OK to do something else.

Another aspect involved is the essence of the co-creative process. It is different with each individual you work with. One might be an experienced meditator with years of inner work, while another might have just had a nightmare the night before and come in off the street. Each brings something unique to the process of co-creation, and you do something qualitatively different with them. The words might be similar and a lot of what you do may be also, but the essence of the co-creative process is different.

A client "prepared" by other inner experience does not necessarily have any advantage over someone who has been previously non-reflective or outer-oriented. Either of them can enter the journey naturally and deeply if that is where they need to go in their journey. The inexperienced may even have less preconceived notions, or personal interpretations of the experience, and allow themselves to experience it viscerally.

Dreams are a particularly good way of initiating children into the therapeutic process. Frequently you may be the first one who has shown a serious interest in their inner drama. They feel much more free to talk about their imagination, and may feel much less self-conscious than when discussing their personal lives. For example, a child comes with a nightmare of werewolves wanting to tear him apart in bed. All you have to ask him to do is let that happen, and he's into it, without years of meditation or other visualization training.

Parents won't even think to instruct children in therapy NOT to talk about their dreams, as they might so-called "family secrets," ["no talk rule"]. So often the children feel totally safe to talk about dreams when they are subject to verbal, physical, or sexual abuse at home.

It is a co-creative process which involves every aspect of the client's life and experience. Expressive imagery comes up spontaneously in dreams which reflects all aspects of life. You can trust that everything the client has to bring to you is just exactly what they had to experience to get there, ready to do the inner work.

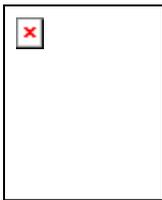
Dreamhealing is not a method, but a creative process you involve yourself in. If we try to put too much method and structure on it, we destroy that. When you "become" another, you can empathize with them to such a level that you become that really active listener. You become one with the person and out of that rapport and bonding you create the journey.

This article was originally written for the journal *Psychedelic Monographs and Essays*.

Edited by Tom Lyttle, this journal also featured my article, "Tantric Lunar Resonance Meditation," (1985), artwork (1990, 1991), and "Chaos as the Universal Solvent," Vol. 7 (1994).

This article is not about drug-induced psychedelia, but about the psychedelic state of consciousness and its access through the process of self-actualization. Gowan himself decried the use of drugs, and likewise considered magic and the occult as developmental forcing and considered both highly dangerous pursuits. Because of this attitude, he told us he was unfamiliar with Qabala, yet his descriptions of certain stages of development fit the key elements and essence of the Spheres on the Path of Return, as we shall show.

In an era when all we therapists were hearing mostly about dysfunctionality, (as the public discovered the recovery movement), it was refreshing to hark back to the idealistic notion of optimising growth potential. When it was all about the Inner Child, some of us were saying "Yes, but what about the Adult?"



DEVELOPMENT OF

THE PSYCHEDELIC INDIVIDUAL:

A 20 Year Retrospective and Commentary on the Work of John Curtis Gowan

by Iona Miller, ©1994

ABSTRACT: As we approach the Millennium, we can hark back for more than nostalgia to the classic chronicles of the psychedelic revolution. Twenty years ago, in 1974, creativity expert John Curtis Gowan, (Professor Emeritus, California State University, Northridge, California) published, **DEVELOPMENT OF THE PSYCHEDELIC INDIVIDUAL: A Psychological Analysis of the Psychedelic State and Its attendant Psychic Powers.** While Gowan "may have some pretensions to being creative, he has none at all to being psychedelic." His work suffers only from this objectivity. This article reviews Gowan's orientation, his concepts of escalation and developmental dysplasia, and the creation of the Northridge Developmental Scale, a test for self-actualization. The commentary includes: 1). current observations on the psychedelic stage in experiential therapy, ("drug-free shamanism") for a 90's approach to Gowan's work, and 2). the qabalistic Tree of Life as an ancient map of consciousness and model of developmental escalation, interpreted in Gowan's terms for historical perspective.

**A Prospective Retrospective
Gowan's Orientation
Developmental Stage Theory
The Psychedelic Stage in Experiential Therapy
The Tree of Life: An Ancient Model of Escalation
References**

"This book is for the Twenty-First Century. It will speak across time to those who come after, as Thoreau's Walden speaks across the Nineteenth Century to us. Happy is he who understands it now for he can set his house in order to welcome the Zeitgeist of that day and era."

"Psychedelic experiences are characterized by a sudden, spasmodic, transitory nature, and off-again on-again typ of episode which leaves the individual enthralled, but somewhat let down when it is over. Illumination, however, is a steady state where the art of controlling the experience has been mastered. But like the display of adventitious psychic powers, "natural" psychedelia is not

valuable unless followed up by action and development; its represents potentiality, not accomplishment."

--John Curtis Gowan, 1974

A PROSPECTIVE RETROSPECTIVE

This classic work in interdisciplinary consciousness studies was printed for the Creative Education Foundation for the 20th Annual Creative Problem-Solving Institute, Buffalo, N.Y., June, 1974. It traces in developmental stage form the growth of the relationship between the individual ego and the collective preconscious which underlies creativity and psychedelic or mind-expansion functions. The work is based in the idea that the preconscious is involved in a developmental process which starts with anxiety and ranges to creativity through well known stations on the continuum of mental health.

Gowan expanded the continuum of the developmental process outlined by humanistic psychologists (Erikson, Maslow, Rogers, Piaget). He included mystical/transpersonal states of consciousness and their attendant phenomena, including those occurring naturally, through meditation, and as the result of drug ingestion. Gowan's use of "psychedelic" is not synonymous with "drug related." His overview includes the work of Kubie, Sullivan, Tart, Masters and Houston, De Ropp, and Krippner, among others.

Before "self esteem" became a buzz-word for the 90s, he defined a developmental continuum with equally vital dimensions of cognition and affect, rational and emotional development. Perhaps even more importantly, he surveys the positive and negative effects of natural escalation compared with developmental forcing on subsequent emergence of creativity and personality change.

Further he constructed a psychological test measuring the process/goal of self-actualization. In 1972, the Northridge Developmental Scale was bootstrapped from the Personal Orientation Inventory (Shostrom, 1966) and other measures of self-concept, emotional morale and psychological well-being.

Gowan proposed three modes of cognition: prototaxic, parataxic, and syntaxic, which he amplified as trance, art, and creativity. They indicate the styles and degree of immersion or cooperation between the ego and the preconscious. They range from dissociation, to propitiation, to conscious contact with the irrational and numinous element--from unconscious instinctual response, to (usually symbolic) self-conscious ego processes, to inner, paranormal "uncanny" aspects.

GOWAN'S ORIENTATION

Gowan's major works, including *THE DEVELOPMENT OF THE CREATIVE INDIVIDUAL* (1972), *DEVELOPMENT OF THE PSYCHEDELIC INDIVIDUAL* (1974), *TRANCE, ART, AND CREATIVITY* (1975), and *OPERATIONS OF INCREASING ORDER* (1980) express his continued interest in the spectrum of human consciousness potential and the defining of a relative taxonomy of such states. Though excellent, these works were not

widely circulated and are somewhat difficult to find, particularly outside of academic circles.

J.C. Gowan's lifework led him to the notion of a developmental order within states of consciousness. This order (see Chart 1) includes three cycles (latency, identity, creativity) revolving around issues of trust, autonomy, initiative, industry, identity, intimacy, and generativity. Breeches of this order lead to a relative displacement of emotional and mental well-being which can inhibit or prevent integration.

Gowan used the work of Piaget to define the rational development of the mind, and that of Erikson to chart emotional development. Usually the cognitive level lags a stage or two behind the emotional; but others are emotionally stunted or frozen in their development. Our modern society has come to know this condition as dysfunctionality, inability to consistently function in an age-appropriate manner. It is a dissonance between rational and emotional dynamics resulting in self-defeating or self-destructive tendencies. Gowan called it dysplasia, developmental arrest which holds back self-actualizing potential.

Escalation implies raising the level of action by discrete jumps--quantum leaps in consciousness. Accessing latent energy resources escalates development from one level to the next. Discontinuity is a requisite for change. Gowan defined developmental forcing as trying to escalate from a given stage to more than one stage higher through mechanical or artificial means.

He likened this forcing to developmental abuse: trying to use characteristic powers or fruits of a given stage for display purposes when the individual is actually engaged in tasks of an earlier stage. Relative dysplasia results from not keeping up with developmental tasks--failure to escalate. But in developmental forcing an individual is exposed to experiences or tasks for which they are developmentally unprepared, and forced to attempt or react to them.

Conversely, those who are well-adapted for their age can become stuck at any level of particular success. He notes that most mature adults become emotionally arrested at the level of vocational fulfillment, financial success, and happy marriage. Another stall may occur as the psychedelic nature-mystic experience where nature is enjoyed for its own sake. Success at any stage of development may promote the desire to continue at play rather than integrating the lessons learned into the task of the next stage. Further development is an evolutionary task/opportunity.

This notion fit well in the psychological context of its time--the human potential movement with its accent on growth and linear movement toward perfection or some other process of ever-elusive "salvation." It is consistent with classical Jungian psychology and humanistic psychology, and the general scientific paradigm of its time.

Current notions in new generation Jungian thought, process work, and even process theology, are less focused on the developmental perspective of the coping heroic ego--becoming--and more focused on the ground state of Being--the dynamic Void or naked reality. The older view seems to underemphasize the initiatory capacity of these

breakthrough experiences, expressed in our cultural history by 50,000 years of shamanic art and accident.

A course-correction here in conceptualization could include what we have subsequently learned in 20 years of the study of complexity and chaos theory. The difference is one of ego control compared with "letting go" and trusting the natural process: ego strength or flow/fluidity. The new paradigm--which embraces chaos--is expressed in science and psychology in such notions as complex non-linear dynamics, punctuated equilibrium, emergent creativity, and self-organization.

Operations of increasing order automatically lead to entropy, which facilitates the breakdown of old forms including outworn personality traits and states of consciousness. Experiences of the complex interplay of chaos and order are the instrument of all development as well as that of the "psychedelic individual."

Self-initiation through the inner guide (happenstance or intent) often leads, in a person with latent shamanic tendencies, to self-induced "shock-treatment," the results of which the person is subsequently forced to confront in daily life. Two commonly employed mechanical means are drug use and marathon meditation, either of which can force escalation beyond normal social developmental stages.

Even in those with a poor social foundation, this "forcing" may crystallize a spiritual or inner-directed behavior which conditions or balances the individual in the short- or long-run. Thus, a dynamic if chaotic "path" or direction of development is chosen. The more definitive the commitment, the clearer the emergent non-linear path and creativity.

Gowan did allude perhaps to a dynamic interplay within the transformative process. Within each transition, he identifies certain components of change: succession, discontinuity (discontinuous equilibration), emergence or budding, differentiation or metamorphosis, and integration or creative repatterning. Together they define phases of developmental escalation, or shifting to a higher gear for more efficient use of available energy. The objective of escalation is creativity.

Integration in the developmental process includes five aspects: (1) confrontation of differences, (2) integration, (3) a yielding up or giving up of the old for a new reorganization, (4) a process of differentiation and (5) a positive directionality.

In summary, Gowan piggybacks on the notions of Erikson and Piaget to create a developmental stage theory, which asserts four ideas:

that the developmental chart has a periodicity of three, and that the last three cognitive stages are creativity, psychedelia, and illumination; that developmental stages are characterized by escalation, and when that does not occur, open to developmental lags or dysplasia; that creativity is a characteristic of the third and sixth developmental stages; that the stabilization and mental health of the preconscious is the key factor in creative output and developmental progress.

Gradually, the traumatic impact of the encounter between conscious and unconscious diminishes as the individual develops. The person learns how to handle issues of identity, love or intimacy, and finally death. Encounters with the "not-me" symbolize and express death of the ego, and prepare one for physical death by de-emphasizing sensory input.

Rather than becoming traumatically overwhelmed, the personal identity expands to experience full emotional and cognitive acceptance of both freedom and responsibility.

[insert charts: Developmental Stage Theory and Components of Escalation]

Pushing on our boundaries, we run the risk of rupturing our sense of identity. This is why the concept of a free creativity is always associated with the genuine danger of a "treasure hard to attain." Peak experiences of creative possibility can lead to self-fulfillment or self-destruction.

Mystic atonement crowns the quest after lower developmental needs have been satisfied. Gowan, seemingly a humanist, asserts that the proper use of the awesome power of the psychedelic stage is *"to protect and preserve those objects of individual man's self-concept starting with the health and welfare of his body image, and then extending outward to his invironmental self and its possessions, his loved ones, his associations and interests, his concerns and finally his total environment and his creations, thus embracing all of his natural world."*

The small ego diffuses through cosmic expansion of the hierarchy of needs toward an enlarged sense of Self. According to Gowan, *"man's highest purpose is not to experience the world of the senses as a reactive being but to design it...to become part of the noumenon of the universe ... co-creator...co-designer."*

He quotes Troward from 1909 as to how this can be done:

There is some emotion, which gives rise to a desire, Judgement determines if we shall externalize this desire, if approved, The will directs the imagination to form the necessary spiritual prototype, The imagination thus centered creates the spiritual nucleus, This prototype acts as a center around which the forces of attraction begin to work, and continue until The concrete result is manifested and becomes perceptible.

This creative visualization cycle has practically become one of the foundation principles of New Age thought. Essentially, this same process is echoed in the transformational realities of experiential psychotherapy.

THE PSYCHEDELIC STAGE IN EXPERIENTIAL THERAPY

Though it is arguable that there is no classical shamanism without mind-altering plants, therapy provides a perhaps more accessible form of "drug-free shmanism" as a socially-sanctioned alternative. This sanction and external guidance do little to muffle the profound effect on participants in experiential journeys into the depths and heights of their souls. The dangers are still real, for our fears and taboos are rooted in our personal belief systems, within our deep existential core. The navigational help of an experienced guide mitigates the fears and defenses which prevent us from plunging into these depths on our own.

A primary value of consciousness journeys is the recapitulation and symbolic reiteration in an almost fractal-like manner of our entire evolutionary and developmental history. Thus any journey can incorporate and modify imagery from all the developmental stages,

depending on a wide variety of states of identification and dissociation. Through this means interior processes are deepened, and psychedelic consciousness naturally emerges.

It is often felt during the resolution or healing phase of the session as profound serenity and a sense of enlargement and communion. As healing continues (the physical form of creativity), the emergent psychedelia of the sessions becomes more generalized throughout daily life. Each developmental advance involves the increased cognitive confluence with an understanding of this deepening interior process.

By closing the gap between unconscious emotions and "acting out" with rational understanding of the roots of attitudinal and behavioral patterns, therapy facilitates healing of dysplasia and existential of mental and emotional faculties. Cognitive dissonance is healed when our self-concept stands up to consensus reality checks and our thinking and feeling are in harmony; our existential reality matches our perception. Head and heart cooperate, rather than tearing us in two. As most therapists will testify, we usually know what is "right" to do, but we tend to do what we feel like doing, even when it is self-defeating.

When we consciously will our attention inward in a safe, therapeutic setting, experiences emerge through process work which are virtually identical to natural psychedelic experiences. Their common elements can be summarized in seven points, as defined by Gowan:

1) The attention of the subject is gripped, and his perception narrowed or focused on a single event or sensation; 2) which appears to be an experience of surpassing beauty or worth; 3) in which values or relationships never before realized are instantaneously or very suddenly emphasized; 4) resulting in the sudden emergence of great joy and an orgiastic experience of ecstasy; 5) in which individual barriers separating the self from others or nature are broken down; 6) resulting in a release of love, confidence, or power; and 7) some kind of change in the subsequent personality, behavior or artistic product after the rapture is over.

There are phenomena common the psychedelic experience, mystical states, and process work. They are typically the same, because the process/goal is the same no matter what means we use to facilitate expansion of consciousness. As the ego goes through its symbolic death throes images of dismemberment and dissolution prevail.

The corresponding physical unstressing manifests as completely involuntary, unintended, spontaneous muscular-skeletal movements and proprioceptive sensations: momentary or repeated twitches, spasms, tingling, tics, jerking, swaying, pains, shaking, aches, internal pressures, headaches, weeping, laughter, etc. Visceral experiences range from extreme pleasure to acute distress. They may include bristling of the hair, perspiration, and burning sensations.

Developmental forcing is felt as a shick, psychic jolt, or jerk. On the other hand, mystic ecstasy brings feelings of serene delight, sensations of the remoteness of physical surroundings, and transpersonal ecstatic exaltation beyond words. Cosmic expansion brings psychic phenomena in its wake. Yogis caution that these siddhis are epiphenomena--powers which are actually obstacles to further enlightenment. Beneficial contact comes through interpenetration of the preconscious and conscious mind.

Mead (1993) reports that meditation has a definite down side for some individuals. Rather than promoting relaxation, it leads to stress, anxiety, depression, and even panic attack. "Relaxation induced panic" manifests as muscular tension, racing heart, head pain, and perspiration. Schizophrenic breakdown has been triggered by meditation, as well as psychogenic illness, and suicidal tendencies.

Typical side effects include sore throats, muscular cramps, tingling or stinging sensations (localized or general), feelings of heaviness or weightlessness, floating sensations, outbursts of laughter or crying, mood swings, involuntary sighing, sweating, trembling, and shivering.

All of these manifestations appear in experiential journeys. When the sensations are validated and deepened they transform, and the journeyer is transformed with them. Experiential therapy, like meditation is not a form of relaxation, but actually an activity of attention and concentration, which raises our innate level of spiritual energy (chi, kundalini, *Shekinah*, "the Force," etc.) with a body/mind altering effect. Once this force is aroused, it is unpredictable just how it will effect the mental, physical, and emotional states. This is the hero's journey into consciousness transformation, the age-old quest.

THE TREE OF LIFE: AN ANCIENT MODEL OF ESCALATION

We have examined some conceptual advances which emerged after Gowan's publication. However, even though he didn't explore this particular mystical path or Way, much of his creative thought in developmental stage theory is echoed in or corresponds with the ancient glyph of transformation of consciousness: the Tree of Life, as it appears in ancient Qabala and modern metaphysics.

Jewish mystics employ this glyph from the *Sephir Yetzirah*, or *The Book of Formation*, for meditation. These kabbalistic practices have generalized into the Western mystery

tradition as the practice of magic. The Tree of Life is a consciousness map and fountain-head of most occult arts. Theurgic magic, which aspires toward greater and greater union with Self and Divinity, is a system of exaltive meditation and creative visualization which employs ritual to alter states of consciousness at will in harmony with the cycles of Nature.

In private correspondence with this author in 1982, Gowan made it known that he considered the practice of magic a form of developmental forcing, and therefore dangerous, so he excluded it from his anecdotal reports of expanded states of consciousness.

The Tree of Life depicts the interactive elements of the psyche as well as the archetypal forces of the universe. The 10 Spheres or vortices of this circuit represent the dynamic, interactive balance of archetypal energetic forces within the universe and each psyche, and their corresponding qualities.

The 22 paths of "*concealed glory*" on the Tree reveal the holistic feedback patterns, the means of transition and interaction between them--transitional states of consciousness. Gowan's styles of cognition--prototaxic, parataxic, syntactic, and unitive states--correspond with planes of consciousness: physical, astral, causal, and unitive.

This Tree is a "ladder of consciousness" which each aspirant may climb toward higher mystic states. The physical biochemical basis of experience is symbolized by the bottom two vortices, which (ala Gowan) we shall call Succession and Emergence. There is a vertical symbolic journey from the ordinary sensory consciousness of physical life (succession) toward the emergent psychic capacities encountered in the trance state (emergence). Traditionally, the bottom sphere represents the Elements of Earth, while the trance state is linked through symbolism with the Moon, psychism, and surrealistic "astral" perception which is often bizarre or uncanny.

"Trance" is achieved in therapy and ritual by interrupting ordinary awareness--by creating a discontinuity, disruption, temporary chaos. At this prototaxic level, the ego is overwhelmed, and transformations manifest as sensations at the psychophysical and psychosexual level. Self-image, perceptions, and sense of time may be temporarily lost or distorted. The ego dissolves in unconscious communion with the primal preconscious.

Further development leads not only to a change in planes, but a change in the style of cognition to "Art," the parataxic mode, as expressed through gesture, body language, art, myth, ritual, dream, and archetypes. In this plane, the accent is on affect (emotional response). On the glyph of the Tree of Life, the polarities are depicted as horizontally balanced centers of force, yoked opposites of Cognition and Affect (Hod/Netzach). With greater experience an understanding of the inner world, a relationship develops which allows the ego to glimpse and participate with transpersonal forces.

In the traditional correspondences Cognition is linked with Mercury (Differentiation) and balanced by Affect which is associated with Venus (Metamorphosis). They are akin to Will and Imagination, or perhaps the Jungian functions of Thinking and Feeling. One gains not only theoretical knowledge of Self, but also experiential awareness of the imaginal realms--a "virtual reality"--perceived through the vision of the soul. The dissonance of dysplasia is replaced by a resonating congruence or confluence of both developmental forces. This

creates a positive directionality or momentum, an impetus, a facilitation of exstatic higher states in their emergent or bud form.

We can summarize the correspondences of Gowan's components of escalation with the Spheres of the lower portion of the Tree of Life as follows:

SUCCESSION = MALKUTH, Sphere 10. Implies the perception of the aspirant that there is a fixed hierarchical order among the developmental processes. There is a continual rise in awareness at each level, and the order of succession is invariant. At this level of awareness (Malkuth), it seems as if the track of development is fixed although there is flexibility in rate and extent of progress. The main degree of freedom lies in the speed at which one chooses to escalate along the "path" of development.

DISCONTINUITY = YESOD, Sphere 9. Postulates a series of discrete changes in levels of consciousness, much like the locks of a canal. Movement is from pre-rational to rational to trans-rational. Developmental escalation comes from strategically balancing or equilibrating the forces at each discrete jump, much as a clutch does when we shift gears. Additional energy is freed up for the aspirant through increased efficiency.

EMERGENCE = HOD, Sphere 8. Shows the debut of new powers characteristic of access to the Astral Plane. They are the prototype of latter abilities which can be relied upon to function at will. First powers appear in tenuous form, and later they are permanent. Pathworking becomes more defined. One no longer follows a dim trail, but a clearly marked Way. Each stage is revealing the characteristics of the next phase in bud-form.

DIFFERENTIATION = NETZACH, Sphere 7. Refers to the enhanced focusing and clarifying of concept formation accessible at the Hod-Netzach level of experience; emotional intelligence. Lest we become fixated in habits which prevent further development, a metamorphosis occurs in which there is a sudden switch in emphasis from one stage to another. It is much like an adolescent longing for childhood irresponsibility which transforms into facing the future with a mature, methodical preparation. When we have been successful in one phase of life, the temptation is that we will desire to remain on that level. In other words, we get stuck, and need to transform our hang ups to flow with the grain of natural processes.

INTEGRATION = TIPHARETH, Sphere 6. We can finally put it all together in an integrated whole. This transrational synthesis creates new degrees of insight, freedom, and creativity. All previous stages are united in a holistic viewpoint, greater than the sum of its parts. According to Gowan, the road to high well-being and creativity has five milestones: "1). *confrontation of differences*, 2). *integration*, 3). *a yielding up or giving up of the old for a new reorganization*, 4). *a process of differentiation* and 5). *a positive directionality*."

PSYCHEDELIA = DAATH, The Invisible Sphere. Direct experiential contact with the numinous or divine element, multi-sensory "visionary" state, perceptual synesthesia; complementary images of fullness and void; temporary but profound communion with Nature, God, and Mankind; oceanic and peak experiences.

ILLUMINATION = KETHER, Sphere 1. The Unitive state of consciousness.

Rising through the planes on the Tree of Life, "climbing" the tree, is a meditational exercise in consciousness-raising. Emergence is an operative principle throughout the vertical "climb" up the Tree of Life. Emergent abilities are first glimpsed, and later stabilized. This aspiration is an instinctual urge to experience higher states of consciousness, and the magical analog of natural escalation and development forcing. We should note that aspirants to this path were always cautioned to have their earthly lives in order before attempting to scale the heights.

Just as Jung recommended the path of individuation only for those approaching midlife, masters of the Qabala preferred well-grounded mature students, rarely accepting those under age 30 for advanced training. Further, Rabbi Kaplan (1990) notes, "*a person would not attempt to climb a dangerous mountain without the proper training and equipment. Any novice who would attempt a climb without an experienced guide would be courting disaster. Climbing spiritual heights can be equally dangerous. One needs the proper training and mental equipment, as well as an experienced spiritual guide.*"

When climbing the "mystic mountain," balancing the Cognitive and Affective energy centers opens a Middle Way, a transitional mode of consciousness referred to as Art or Temperance. This path leads directly to the central sphere of "Creativity," which radiates integration and magnetically draws us toward individualized consciousness, self-actualization or fulfillment of our unique potential.

The emergence of this state as a creative impulse is glimpsed in the parataxic mode, but its fruition comes through the stabilization of syntactic awareness--the qabalistic form of Self-realization, which brings a new sense of equilibrium and transmutation. According to Fortune (1935/1984), "*consciousness ceases to work in symbolic subconscious representations but apprehends by means of emotional reactions.*" Mysticism itself is one of the greatest arts, melding aspiration and artistic expression.

This well-spring of creativity is the source of Intuition which balances instinct and proprioceptive Sensation. In *THE TREE OF LIFE*, Regardie (1969) states in no uncertain terms that "*Genius in itself is caused by or proceeds concomitantly with a spiritual experience of the highest intuitional order.*" He considered self-discovery and spiritual attainment an evolutionary mandate.

Aspiration leads up the Middle Way into the state of Psychedelia or mystic rapture, which includes the possibility of mystic rupture of the protective covering of the ego if forced too far, too soon (Daath, the psychedelic sphere of Knowledge). Again, Rabbi Kaplan notes that, "*The further one climbs, however, the more rarefied the atmosphere, and the greater the spiritual danger. By a simple permutation, the word Kether (Crown) becomes Karet, the Hebrew word for excision, where a person is completely cut off spiritually.*" The dangers alluded to include mental, emotional, moral, and spiritual chaos.

In Jewish or occult meditation, when a qabalist enters the mysteries, he or she must parallel the sequence of creation. We first enter the Universe of Chaos with its confusion of transient images; even the Spheres are perceived as disconnected images. But by meditating on and experiencing the traditional paths, relationships become apparent and a sense of integration develops as we realize we are that gestalt of the Tree of Life. This

"creation pattern" echoes what we find in experiential therapy sessions where notions of the old self break down in chaos prior to connection with holistic repatterning that heals and reveals an expanded sense of self.

The stabilization of the Creative stage ("Beauty," Sphere 6) leads to the ascension of transpersonal values in personality and behavior. So-called normal consciousness can proceed no further, and ego (through this insight) diffuses into an expanded sense of superconsciousness. Though Gowan is vague on this point, the Qabala hints that access to higher mystical states involves the balancing of the qualities of Judgement or Severity (strength, fear, discrimination) with those of Mercy, Love, or Compassion, corresponding respectively with Mars and Jupiter.

On a higher octave, it involves the downflowing of grace, a marriage of Understanding (Saturn) and Wisdom (Uranus). This psychedelic state, Daath, is a contact with the macrocosm, the numinous element which results from the twin blessings of Wisdom and Understanding wherein the psychophysical self is "contained", yet expanded and diffused in pure consciousness containing no sensory imagery. It holds the secret of generation and regeneration and the manifestation of all things from No Thing. In Qabala, the developmental process culminates in complete absorption in the Unitive state of Kether, the uppermost vortex--Illumination.

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THE RELATIVITY OF BODY AND SOUL

by Iona Miller, c1992

...we are not concerned here with a philosophical, much less a religious, concept of the soul, but with the psychological recognition of the existence of a semiconscious psychic complex, having partial autonomy of function, [anima].

C.G. Jung, *TWO ESSAYS...*

The soul loses its psychological vision in the abstract literalisms of the spirit as well as in the concrete literalisms of the body.

James Hillman, *RE-VISIONING PSYCHOLOGY*

Psychic and somatic symptoms express the soul's painful wounds and obstructions. The rational mind is incapable of deciding what is best for the soul. The mind can discover what is needed only by listening to and reflecting upon the subtle movement of the soul as it expresses itself in bodily sensations, feelings, emotions, images, ideas, and dreams.

Robert M. Stein, *"BODY AND PSYCHE"*

Throughout history there have been many conceptions about the physical and spiritual nature of reality. Early on, they were confounded, though now separated into philosophy, physics, and religion. Each of these models or conceptions of mankind's relationship to

nature and the divine was based in a belief-system which pre-conditioned all notions about the nature of the self.

The realm of psychology, with its own unique perspective on body and soul, lies between the worlds of physical reality and spiritual heights. And, of course, there are many schools of thought in psychology, many of which, like behaviorism and humanism, do not consider the relevance of a notion of soul as motivating factor. On the other hand, transpersonal psychology accepts the validity of the spiritual to the point where its primary psychological orientation may recede into the background.

Jungian psychology, and its avant-garde form, imaginal psychology seek to maintain the primacy of the image as a direct expression of soul. As a discipline, it alleges that soul is a primary experience, and seeks to give her a voice. The realm of psyche is a subjective world of depth and meaning that is sometimes corporeal, sometimes not. Entry into this style of consciousness means heightened awareness of subjective realities. Each "thing" speaks of the gods, or archetypal qualities and forces. It boldly asserts that not even technology and inorganic matter are inherently soulless.

Imaginal psychology's main proponent, James Hillman, suggests it is only the literalist, objective world of Newtonian mechanics and the Christian apocalypse that is "dead." This school of psychology views many "spiritual" notions as products of a monotheistic style of consciousness. It puts forth the view that soul is a pluralistic expression, rather than an individual quality. It upholds a polytheistic perspective which is more in line with the primitive concepts of the nature of soul. It views notions like "spiritual soul," "material body," and "spiritual body" metaphorically, rather than literally. Each god or archetype has its relative, characteristic style of consciousness and way of seeing through the nature of things.

Jung and his followers have shown that certain mind-sets lead to biased fantasies about the nature of the body, the soul, and the cosmos. Psyche is essentially related to soma because it is rooted in organic structure. The intimacy of this relationship is not fully understood. It is a realm of mystery which brings in its wake phenomena such as synchronicity and psychosomatic disorders.

Religion and superstition undermined any remotely objective viewpoint about the physical nature of the universe until the Enlightenment. Then scientists armored themselves against incursions of the divine with Newtonian mechanics and Cartesian duality. Descartes split mind from body, and equated the soul with the ego and mind, thus disenfranchising it. The mechanistic, "clockwork universe" was based on the primacy of underlying order. The universe was perceived as chaos tending toward order, with each atom following God's great plan.

This notion of an orderly universe was superseded by the unpredictable phenomena of quantum mechanics and chaos theory. We have found that beneath the apparent order is complexity, a world of chaos that self-generates order, which dissolves back into chaos. Even orderly motion is ultimately unpredictable due to initial conditions and even the slightest of random intruding influences. So, the universe may still be "God's plan," but its basis is irrational, not rational.

Physics is a form of philosophy which makes educated guesses about the nature of reality and our existence. It invites us to "look at it this way..." Scientific revolutions demonstrate that these are not ultimate statements about the nature of reality. They are relative, state-of-the-art hypotheses. This particular type of natural philosophy includes many universal laws, however, which reflect the way things seem to be from the current point of view.

It is difficult for any of us to free ourselves from our enculturated and a priori beliefs about existence. It is hard to view anything from outside of our own fundamental philosophical, spiritual, and psychological perspectives. These theories, dogmas, and experiences condition how we perceive reality. Their influence may be so subtle we fail to notice where our position originated. Our viewpoint is relative to our position.

Einstein showed us that, in physics, all perspectives are relative to the position of the observer. He discovered this by imagining he was riding on a beam of light. This relativity holds true in psychology also, depending on what assumed truths one holds. Notions of soul and body are not describing any irreducible reality. These notions are relative realities, reflecting our personal understanding of the nature of reality. They emerge from our specific worldview about the way things (including ourselves) work.

What we believe conditions what we perceive, feel, and express. Research shows our beliefs and opinions are largely conditioned by the belief system of our peer group. The day-to-day influence of convention creates a consensus opinion about reality and is a big influence on lifestyle. Much of consensus is a tacit agreement to overlook certain kinds of information, especially if it doesn't fit the "party line."

Beliefs are subject to radical reversal in some instances--the process of conversion. Jung called this 180 degree shift in consciousness *enantiodromia*. Conversions arise from a desperate need, from exposure to a new peer group with different attitudes and values, or through embracing a broader worldview, or by covert means like propaganda and brainwashing.

The prime expression of beliefs is through spontaneous imagery. We never experience directly, but interpret our experience of our perceptions through imagery. All our input comes through multi-sensory channels. We never directly perceive ourselves, soul, or God. We don't perceive our bodies directly, only our sensory impressions. But we do have first-hand experience of our body-image, soul-image, and God images. That is all we know directly. The rest is pure speculation.

Relative viewpoints condition our concepts of reality, body and soul. A given individual may hold several within himself. For example, a rational scientist may find no empirical evidence for soul in her normal methods of investigation, but it does not prevent her continuing practice and belief in her faith. The emotional self will not be denied, even if it is held discrete from the workplace.

Historically, the body (and matter in general) has been a spiritual battle-ground. Because of the bi-polar nature of our being (or our perception of bi-polarity), the human spirit naturally comes into conflict with our earthy and material needs. These primal drives

create conflict between spirituality and instinctuality or sensuality. But the conflict is a matter of perception and psychological perspective.

In the West, flesh was condemned for "original sin", a mandate forced on the body by so-called "spiritual" pontification. This mandate was extended to include the condemnation of all matter. In the East, the perception of any solid substance was declared a mental phenomena. Matter was seen merely as an expression of universal mind, reduced to a gross state known as *maya*. In this state all matter is subject to karma, the natural consequences of active existence. In this worldview, the soul is continuously recycled. Both philosophies reject materialism, and the body with it.

So matter is merely a convincing illusion in one view, while in another it is inherently evil, the very opposite of God. The notion of immanence holds, on the other hand, along with Pantheism and Animism, that all matter, formless or substantive, is naturally infused with the divine. All agree that matter occupies space and time and is perceived by the senses. Philosophically, matter is the formless material of the universe of sensory experience. Each of these ideas, *maya* and the "fall," provides a coherent worldview, yet remains discrete and congruent only within its own belief system, with its a priori assumptions unexamined.

In our culture, the body and our fantasies about it, have come to represent the lost Feminine element. We have lost touch with our primal femininity, the animating principle (nature, body, instinct). We have become estranged from the body through the mind/body split fostered by Cartesian thinking, which is also non-relativistic.

The image of the disembodied modern individual is one of an over-rational "walking head," not a whole human being. Our modern need is not for further disembodiment by transcending off into salvation in the nether-realms of space, not for more out-of-body experiences. Rather, we almost desperately need to create ways of truly inhabiting our bodies, unsplit by Puritanical and Cartesian residue.

There is a way that joins spirit and body through the spontaneous imagery of soul. It seeks neither to solve our troubles (pathologies) nor "save" our souls. It suggests direct engagement with images for soul-making or deepening through personal experience. We can see through the nature of apparent reality for ourselves, if we but try. Then we develop our own philosophy, apart from consensus. When it comes to questions of speculation on the unknown, we can either accept what others have said, or look for ourselves.

We seek the lost soul primarily because of the intense degree of wounding in our modern consciousness. This wounding has "opened" us to transformation. We can embody soul by seeing-through appearances to an acute awareness of the archetypal, subjective perception of our experience.

We can find soul in the body. It speaks metaphorically in body language (how closed or open one is to life and experience), body talk ("he's a pain in the neck," "I can't stomach that"), symptoms, and displacements. Conversion reactions change psychological dis-ease into concrete ailments. Jung said the gods have become diseases and there is a god within every disease. Noticing that psychic element and giving it voice is psychological soul-

making. We can also look at our behavior, emotions, thoughts, and styles of consciousness psychologically.

The conflict over the body is really between spirit and spirit, good and bad, polarized. But it is popularized as a split between spirit and matter, with the soul as intermediary. To compound the problem, in linguistics and beliefs, spirit and soul have become mis-identified with one another by theology and philosophy. Philosophy, for the Greeks was an adventure undertaken for its own sake, without dogma, rites, or sacred entities.

These disciplines pull the soul in opposite directions, leaving the alienated ego rejecting both mystical experience and the imperfection of the body. Thus we need recourse to priests (for spirituality), therapists (for psychological insight), and doctors (to interpret the condition of the body).

All healing appears to come from without, when we cannot heal our own dis-ease. The body is betrayed and mentally abandoned. Symptoms become something to get rid of, while the soul has no recourse to a higher power. Then the body becomes tyrannical, ruling the self with addictions and psychosomatic complaints. It has many ways of manifesting dis-ease.

The entire choice between spirit and body, inner and outer, has its source in identification with the ego. Ego maintains itself by creating conflicts from opposing drives within. It suppresses one and makes you believe you have chosen freely. The dilemma comes from the ego, not the soul.

Matter, spirit, and ego fight over the soul. Yet soul is a primary experience. Each wants its unique fantasy to reign uppermost. So, the first task is to distinguish soul from spirit, so the body may unite and be enlivened by both. In this process, primacy is given to the perspective of psyche or soul. This is a psychological approach--not spiritual or religious--giving voice to soul. It means the return of a subjective feminine eye on reality. It means the enlivening of our bodies, the world of nature, and the imagination. When we see soul as the background of all phenomena, we become aware of the animating principle

All images arise from either body processes (instinct) or psychic forms (spirit). Whether instinct-controlled or spirit-controlled, they are related to physiological processes. They appear psychologically as images, but work physiologically. They produce emotional or visceral aspects, but not in any causal way. The images don't produce reactions. The image is the entire psychophysical gestalt.

We have considered three relative perspectives from which the notion of soul may be viewed: theological, philosophical, and psychological. Each has its own distinct notion about the body. Like Jung, we are not referring to a religious or philosophical concept of either body or soul. Soul may or may not ultimately be a disembodied, immortal thing as Zoroaster, Plato, and The Bible suggest.

They uphold the pervasive cultural view that soul is a transcendent entity, distinct from the body, that participates in an idealistic afterlife. No one alive can say for sure, and what about this life, here and now? Psyche's view speaks directly to our whole personalistic experience, with its transpersonal elements.

The soul in depth psychology is an empirical manifestation of imagination, fantasy, and creativity which is always in the process of becoming--images forming, and dissolving, and forming anew. Imagination is the essence of the life forces, both physical and psychic. These fantasies always permeate our beliefs, ideas, emotions, and physical nature.

Like the psyche, or life-breath, of the early Greeks, this notion of soul is like that of the butterfly which always stays close to the ground. It is an airy thing, hovering lightly, without heroically soaring to the heights. In this model, there are no abstract flights of fancy into spirit's realm, no transcending off into subtle "spirit bodies" mistakenly distinguished as aspects of the soul. These urges are real, but they belong to spirit.

Rather, the soul generates images unceasingly. The soul lives on images and metaphor. These images form the basis for our consciousness. All we can know comes through images, through our multi-sensory perceptions. So this soul always stays close to the body, close to corporeality, to what "matters." Let the images come into your body. Embrace the image. To heal the mind/body split we need a view of reality that eliminates the dichotomy of "in here" in this separate body vs. "out there" in the alien, external world.

Even physics shows us we are continuous with that world. Our skin-boundary is an illusion. We literally exchange gases and atoms with one another, and the world. The turn-over of matter in the body means there is no single, stable structure over time--just a duration of consciousness.

The line between organic and inorganic matter is indistinguishable at the subatomic level. All that exists is alive with motion. Both body and mind are the realm of psyche which can manifest as particular behaviors, psychosomatic illnesses, emotional patterns, mental and spiritual beliefs, and synchronistic events.

Mystics tell us that the entire world of phenomena is of the nature of mind or consciousness. Modern quantum mechanics seems to uphold this view from the scientific side. There is no solid matter, when you get right down to it--only waves of energy, "quantum fuzz", and probabilities. So, matter is no more tangible, nor less divine than the intangible energy or light from which it congeals. It is a spiritual notion that matter is a debased form of energy.

But the perspective of spirit would not have us confuse the creation with the Creator. Yet, in some sense, the light is the Light, in the metaphorical, if not literalistic or concretistic sense. We are merely a local outcropping of individuality, embedded in a continuum of cosmic connectivity, a webwork of relationship. In so many words, it means, "We are the world!"

"In here" and "out there" become moot when the subatomic nature of matter is truly understood. It becomes easier to see the nature of psyche as the underlying, living, divine field of all experience and phenomena. At the deepest level, we are physically indistinguishable from the cosmos at the quantum level.

Our existence is one of an indeterminate electromagnetic field, rather than a distinct chemical entity. Divinity is not off somewhere else, long ago, or in the future. We don't need

to leave the body, die, or travel through time and space to find it in "pie-in-the-sky" salvation. As the Buddhists note, all is self, or Atman, here and now always.

The universal EM field is a primary physical, if not corporeal reality. Our apparently discrete existence is contiguous with it. In this model there is no mandate for a "soul-as-spirit body" to leave or vacate the body for purification, enlightenment, or union with divinity. Only our state of consciousness keeps us from that moment-by-moment realization. Direct psychological experience tells us that "*I AM THAT*."

We are psychological beings, composed of body and soul. Psychic life is physical and mental. Spirit enlivens soul--it manifests through soul. Soul animates the body. Soul enlivens and tends to favor the body. The body unites with spirit and soul by becoming "saturated" with them, immersed in their essence.

Denial of the body by a disembodied spiritual drive leads to ascensionism. It may be an escapist, transcendence fantasy. It is a way of keeping life at bay. In the provisional life one is always waiting to live life if things are just so. We can reinhabit or re-own the body in consciousness and experience ourselves as total psychosomatic beings. Spirit can be grounded in the body by making practical use of spiritual insights.

The harmonization of spirituality and instinctuality leads to wholeness. For example, in sexuality, a spirit-body split leads to an inability to see one sexual partner as both sexy and spiritually inspiring. This may manifest through circumstances or a psychological complex. It is an aspect of the Madonna-whore complex.

The whole person, on the other hand, views the sex act as the divine marriage of spirit and soul, God/Goddess, Shiva/Shakti. It epitomizes the universal cycle of creation/destruction, mind and matter in play. This attitude exalts body, soul, and spirit. It is akin to a nature mystic experience where the outer divine resonates and enters the body.

The ancient art of alchemy was the search for the God-head in matter. The alchemical task was to unify spirit and soul in the body. Psychic reality means to be in soul, *esse in anima*, as Jung put it. It means an enlarged experience of concrete reality to include the realm of the psyche, a dialogue with events, situations, and circumstances.

Body is made complete, not by perfecting it, but by spiritualizing it. It becomes the vehicle of the "incarnating Self." Spirit is attracted to matter and matter to spirit. Matter gets purpose and meaning from spirit. An "immortal body" now means grounding of the spirit. The uniting of soul, body, and spirit was called the *Unus Mundus*, or One World in alchemy.

As a psychophysical entity you experience the *Anima Mundi*, or Soul of the World. The Jews knew it as the *Shekinah*. She is the embodiment of psyche, the animating force behind all events, images, and material forms. Soul functions both in the body and through projection in the physical world. Psychic reality means to be-in-soul, through embodiment (soma) or enlivenment (psyche)--perceiving images viscerally (soma) and mentally (psyche).

Acknowledgement of this force does not constitute Goddess worship--only recognition of the archetypal reality of nature, and our nature. She is a way of reclaiming the divinity of

body, matter, and world. The Soul of the World notion, though repressed, is part of the return of the Feminine. Hillman invites us into this world:

Let us imagine the anima mundi neither above the world encircling it as a divine and remote emanation of spirit, a world of powers, archetypes, and principles transcendent to things, nor within the material world as its unifying panpsychic life-principle. Rather let us imagine the anima mundi as that particular soul-spark, that seminal image, which offers itself through each thing in its visible form. Then anima mundi indicates the animated possibilities presented by each event as it is, its sensuous presentation as face bespeaking its interior image--in short, its availability to imagination, its presence as a psychic reality. Not only animals and plants ensouled as in the Romantic vision, but soul is given with each thing, God-given things of nature and man-made things of the street.

Hillman suggests therapy shift its focus from saving the soul of the individual to saving the soul of the world, resurrection of the world, rather than man--a raising of consciousness of created things, the world's psychic reality. He says we have, in essence, taken and stored the world soul within ourselves. *"There is no 'in here' and 'out there'. We should give it back."*

Physical reality becomes psychic and psyche becomes real. It "matters." The difference between soul and external things no longer matters. Inner and Outer worlds are real. They are One World. Image, metaphor and symbol bridge the abyss between matter and spirit. They are integrated with feeling, mind, and imagination. We can see soul in all natural objects. We can notice our fantasies constantly conditioning our experience of reality.

We need to learn how to be in our souls, just as we had to learn to reinhabit the body. Being-in-soul implies that you are being suffused with spirit. Knowledge of spirit doesn't come from ideas, even revelations, but through a reflective process. Their conjunction, or marriage, means spirit is reborn whenever you are in touch with soul. They are opposites, so the interplay is eternal. Just observe without attachment the interaction of soul and spirit, distinct yet conjoined. Hold the tension of the opposites.

When spirit as energy and matter as form are in balance, the body becomes the living "Temple of the Spirit." The notion of a soul's immortality comes to mean direct experience of non-spatial, non-temporal, four-dimensional reality--the realm of relativity.