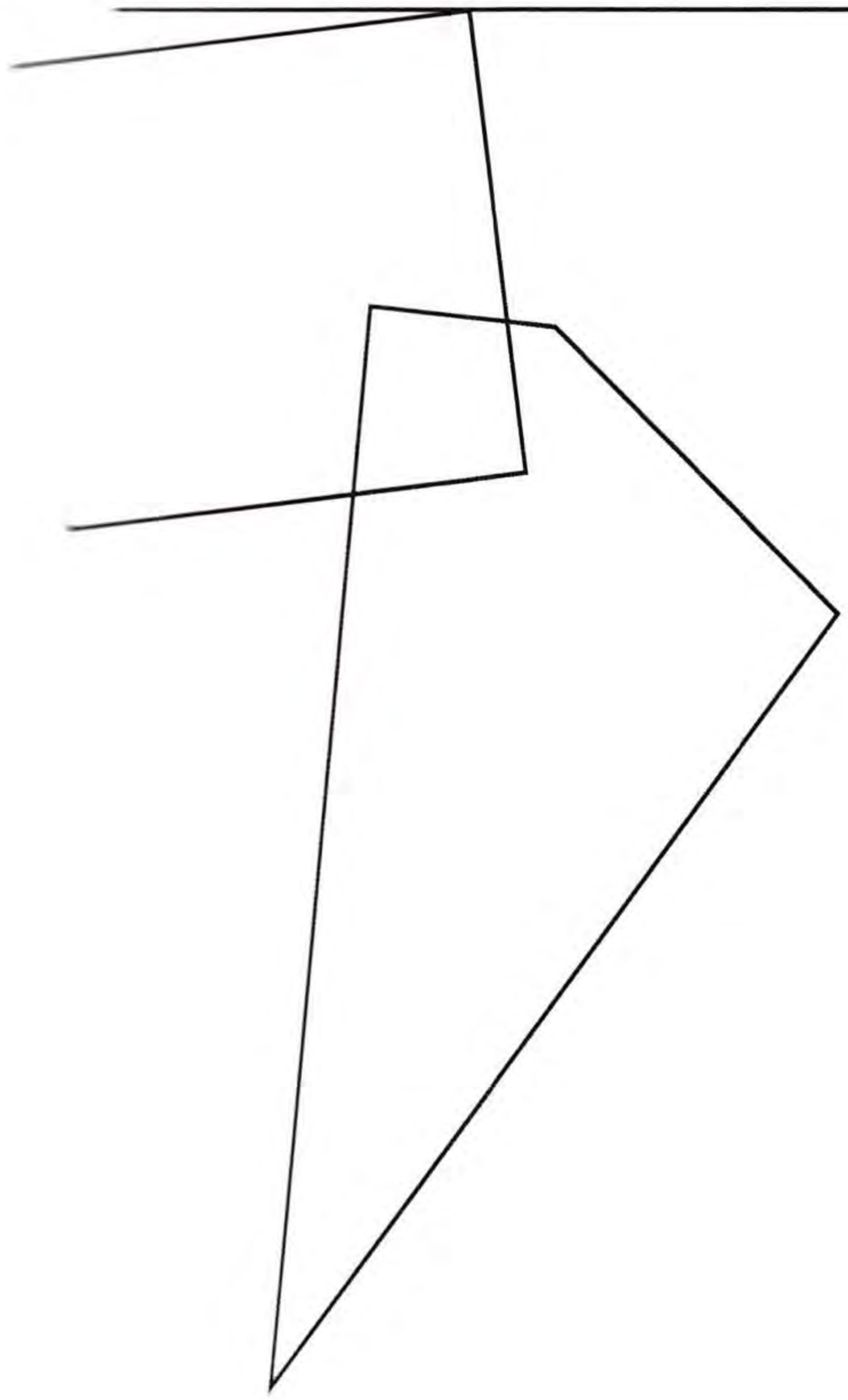
Preface

Time as Temple and Tempest



He comes to the first pylon. He speaks. Lady of terror, whose heart is a wall, mistress of destruction. Lady of alarm, ruin and despair, too-wise bird of no good omen. Priestess and dancer whose words are fires that crackle and spit in a man's face. Lady of rage, she creates nightmares by the thousands. She spins. With a black word she drives back the serpent and the traveler goes on his way. Her name is "Vulture Mother of Terror." Blessed is the lady.

Awakening Osiris: The Egyptian Book of the Dead, Normandi Ellis

There exists an intriguing etymological overlay in the Indo-European lineages of our contemporary words "time" and "space" with "temple" and "tempest". This work is an exploration of a possible shared mythological origin of these terms, which designate such strikingly different phenomena. The common source may be a mythic figure, the Dravidian Goddess Kali: the Dark Mother of Time, who, out of cosmic blackness gives birth to all the forms, energies, patterns, and beings of the created universe, from stars to spider webs. Kali is also the one who, in measured rhythmic durations known as Yugas, will tend to mature then degenerate and totally destroy all that she has put forth. These conjectures are stark and disturbing to our conventional conditioning of time as "progress" or "evolution". However, if one takes into account the acceleration in number and scale of wars with an increased capacity for world-wide destruction, coupled with the economic and social chaos and corruption that has occurred since 1938-39 and finally combined with the successful research into nuclear weapons and energy, the perspective alters significantly. These trends, having continued over the last seventy-two years, were accurately prophesizing the myths of Kali which also stated that there is much more to come. I begin with just a few of the clues one finds in the dictionary:

Temple – Old English *Temple*, Latin *Templum*; a space marked out for the observation of the auguries or prophesies, akin to *tempus*, time.

Temples – Latin *Tempus*; the flattened space on each side of the forehead.

Tempo – The rate of speed or spiraling motion of an activity or musical composition from Latin *Tempus*, time.

Tempest – Latin *Tempestas*; weather, temperature, seasons, storms, Old French *Tempus*, time or temporal.

Tempestarii – In Medieval lore the Tempestarii were witches who specialized in storm raising. These storms sent hail, wind, thunder and lightning which pelted down on food crops just ready for harvest. The legends speak of giant creatures in spaceships (the Magonians) who landed their spaceships and aided the witches to load the flattened and fallen grains and fruits onto their aircraft. They would then fly back into the sky to the dismay and anger of the unrewarded witches. This odd medieval tale will find a reasonable explanation as we delve into the stories of Kali and the end of time.

Tornado – From Latin *Tonar*; a spiraling organization of force and thunderous threatening sounds – a whirlwind following a flash of lightning and an explosive expansion of air and electrical discharge.

A window opens by way of the root Tonar, which means *tone*.
The connection is with time (Tempus) and the element and form of sonar energy utilized in the creation of language, music and at the same time, frightful natural forces.

Template – French Temple, a pattern or model for guiding the spatial realization of a form.

Frame P.1

The commonality of "time" and "temple" no longer enters into our conceptualizing of time although physiologists now recognize that the flesh body is entirely a temporally organized structure: an "architecture of time." We also now know with certainty that the great ancient temples such as New Grange, Stonehenge, the Great Pyramids of Egypt and Angkor Wat, together with temples and pyramids elsewhere, were built to record the auguries of the celestial patterns of time. The word "temple" also relates to the enclosure of the brain protecting the delicate bio-cerebral instrumentation that converts atmospheric or etheric temporal pulsations

into sounds, intonation and ultimately language. At a shared level in the brain, this auditory capacity operates in concert with the optic procedure of converting light intensities of measured temporal frequencies into form and color. The temples also enclose a highly sensitive glandular region (pituitary and pineal), which converts light, temperature and other temporal signals of the atmosphere and earth, into biochemical hormonal reactions. This certainly marks this functional region of the skull as the temple and sacred sanctuary of conscious life.

The two words *Tempest* and *Tornado* have particular significance as the ancient philosophy of cyclic time defines our current era as one in which the creative forces of our world violently implode. We then confront the destructive face of the powers of creation, which in India were named Ma-Kali. This alteration of time, from creation to destruction, will induce disruptive climatic and seasonal changes. The four-fold seasonal progression has a metaphoric and significant numerical connection with the Yuga system and traditionally served as an analogue of the archetypical phases of organic life:

1. From infancy and childhood = Spring
2. To youth and fertility = Summer
3. To adulthood and maturation = Autumn
4. To old age and death = Winter

Frame P.2

The tempest and the tornado will twist these four-fold progressions of life and time; the young become old and the old become infantile and senseless as this era drowns in the roar of technological turbulence. These then are the powers acknowledged to exist in the Latin word *tempus / tempos* as well as in Dravidian Sanskrit Kalpa / Kali. It is from the instantiation of this ever motion-full Temporal Being, that all the substances and architectures have been created; cosmic, terrestrial, cultural, biological and intellectual.

TIME AS AN ACTIVE FORCE

In the tradition of contemporary science and education, time is regarded as a neutral, highly regular backdrop to the events and forces occurring *within* and *with* Space, as well as to the material and immaterial configurations *of* and *in* Space. However, the ancient builders of the pyramids and stone circles have revealed in their monuments a very different relationship between Time and Space. They believed that time and space were highly distinct conceptualizations, each being partly physical and partly metaphysical. They also believed that the eternal geometric laws of spatial symmetries, dimensions and relationships found in circles, triangles, squares, cubes and tetrahedrons, are exactly the same laws and proportions that govern the cycles and durations of time. In this way, Space and Time take on an additional quality beyond those of measurable distance and duration. For ancient philosophers, Space and Time were a vast field of resonation, interrelating the forms and energies of the cosmos. They evidently also believed that time is not a neutral graduated measurement of motion in the passage from the past via the intangible present moment towards a future. In contrast, the measuring capacity of time in modern science is tied to recurring or repetitious event patterns such as day and night, expansion and contraction, rising and falling levels of pressure, temperature or entropy. As physicists Eigen and Winkler stated:

> "Physics does not describe nature; physics describes regularity among events, and only regularity among events. Physics also observes these regularities under controlled conditions of time and space, isolating the observed system or event pattern from its natural environment".[1]

Perhaps due to these aspects of scientific experimentation and abstract thinking the true nature of time has remained distorted and diminished. However, time is not simply the measure of these periodicities. As I shall develop, time is the ultimate source of the organization, regularities and growth of all systems as well as the source of their entropy. This is precisely the philosophy of time underlying the ancient cyclic theory of the Yugas.

This idea was postulated and tested in modern science only recently, by the Great Russian astrophysicist Nikolai A. Kozyrev (1908-1983) and experimentally verified by physicists worldwide. He formulated that, "time is an active force, energetically influencing maturations, transmutation and transfiguration in the developments of the physical world." This active force of time, though more subtle, is comparable to electromagnetism and functionally related to the movement and activities of light. Kozyrev began

his inquiry by noticing how so many varied forms of life exhibit a spiraling growth pattern and he began to view and theoretically experiment with the idea that this spiraling pattern of nature, and life itself, was a property and manifestation of time. The ancient Gnostics had already named this aspect of time that Kozyrev was beginning to clarify as the "Materia Prima", the metaphysical etheric organizing field pattern that allows for the apparent physical world to emerge. The energy of this spiraling formative field is presently called "torsion" which is a concept that can be modeled by twisting a cloth at both its ends at once; one end in one direction, the other end in the opposite direction. A second form of torsion is to hold one end firm and twist the other in a single direction. The human torso (from the word *torsion*), if not inhibited by fear or tension, is designed to twist oppositionally during bi-pedal walking with the right shoulder going forward, while the left hip goes back. Thus as we walk, we simulate this spiraling force of time.

Kozyrev, when working on the mathematical calculations relating to the luminosity, mass and size of stars, observed that the intensity of light and radioactivity given off by stars could not be mathematically explained by thermo-nuclear fusion alone; some other source must be involved. After thirty-three years of tireless, detailed research, Kozyrev came to the hypothesis that the spiraling geometry of time is the source of stellar energy. His theory reads like this:

> "The geometry of local celestial space is a determinate in the energy output of the fusion reaction of a star. And depending on that geometry, a star will alternatively give-off (gate), now more energy, then less energy into the reaction completely as a function of that geometry".[2]

Einstein had partially pre-empted Kozyrev's revolutionary theory of time in his relativity theory, describing the nature of the force of gravity. Einstein offered a new metaphoric explanation to replace the Newtonian "apple falling from the tree". He said you must imagine universal space as being similar to a huge rubber sheet. The weight and size of a sphere formed in that sheet distorts the square or cubic geometry of space into a curvature of its own form.

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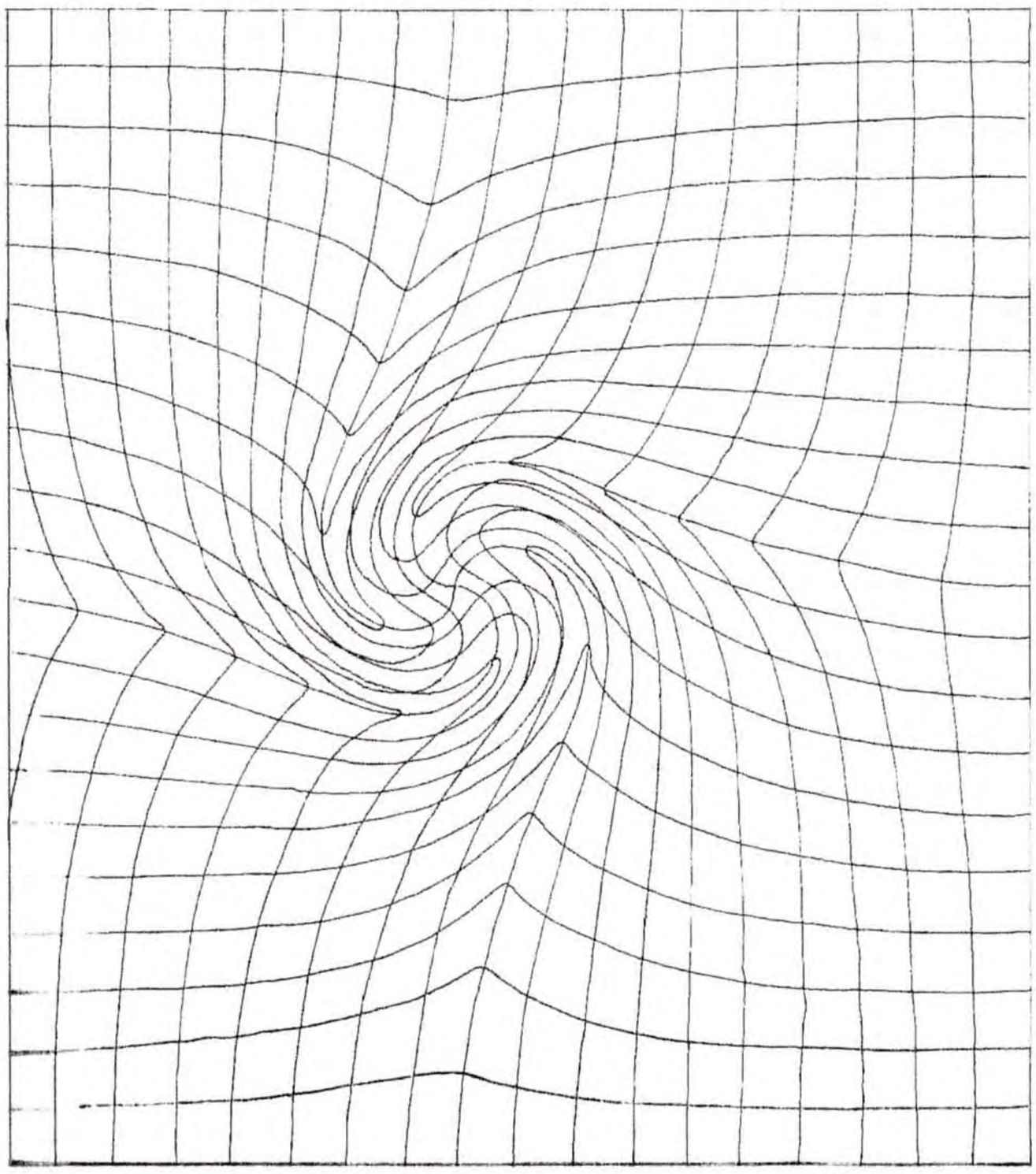


Figure P.1

The spinning of a sphere further distorts this geometry into a spiraling curvature.

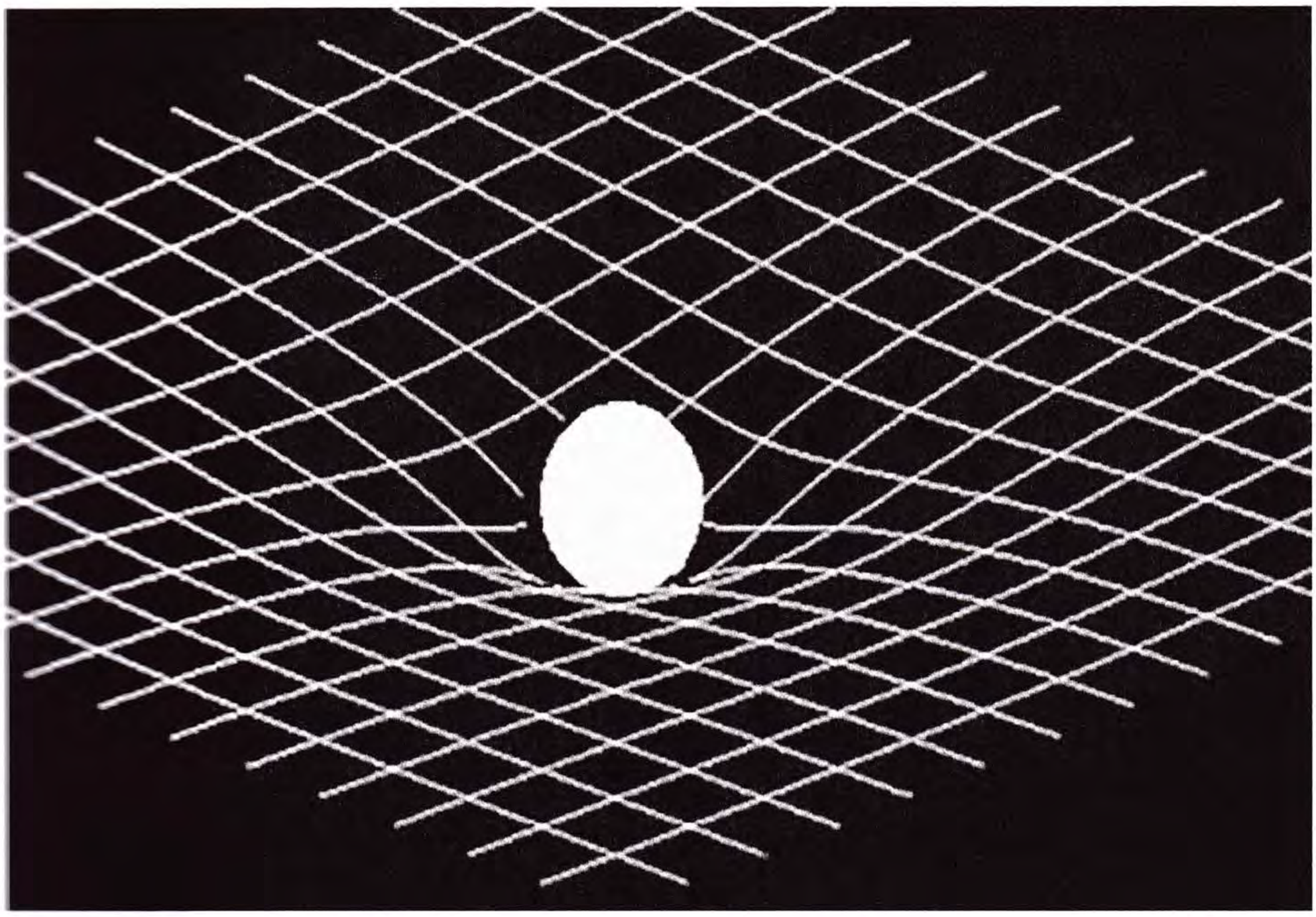


Figure P.2

The warping of space by gravitation.

Therefore, Einstein argued, Space and Time or Space-Time has a characteristic curvature and it is this curvature that creates gravity. In other words, the pull of gravity is the tendency of forms "to slide downward" on the spiraling curvature of Space-Time.[3]

Intrinsic to this spiraling motion is the principle of inversion. It is the presence of inversion that allows a spiraling vortex in such mutable elements, such as water or air, to take on a stable form. Because of the dynamic balance of opposites within the symmetry of a spiral, only a measured amount of its matter or energy will be progressively dispersed or disappear out of its point of termination. Another portion will ascend as an oppositional twist of force. Thus, a universal vorticular movement causes the effects of gravity as a "sliding downward" as well as an uplifting force or *levity*. Edgar Allan Poe tells us of a sailor who by careful observation as he sank into the maelstrom, understood the nature of the vortex and was carried upward by the very spiral that had sucked him down.[4]

Both Einsteinian and Newtonian theories of gravity fail to address the inseparable complementarity of the force of gravity; that of levity. Both of these forces are as essential to the formation of a spiral as they are to life, growth and all forms of vertical ascent. They are also the function and expression of time in the ancient Yuga system. The Edgar Allan Poe story, on the principal of complementary oppositions, serves as a metaphor of our position in the great spiraling nature of time: while we must observe and accept inexorable laws governing the direction of history, we must also seek out that which can stabilize our awareness and raise our consciousness above the fear of inevitable termination.

THE YUGA SYSTEM AS THE NATURE OF TIME

The Yuga system provides yet another characteristic of the spiral of time, one that is coherent with Kozyrev's experiments: it is time that imparts the spiral patterns of growth, movement and space by means of resonant proportions between energy and form. This idea is at the nucleus of this study of the Yuga system and the nature of time.

Later, I will review how spiral motion conveys the primary sacred geometries found at the basis of form and number and then show how the same spiraling principle is contained in the structure and force of time as given six thousand years ago in the Yuga system of South India. Reinforcing this connection is the fact that the Sanskrit term "Yuga" translates as "spinning, circling, and turning". The Yuga spin differs from the science of torsion in that the ancient concept includes the sound emitted by the spin.

The other contemporary scientific term relating to the Yuga system and the spiraling forces of destiny is "entropy". The German naturalist Rudolf Clausius coined this term in 1865 from the two Greek words: the verb *en-trepein* which means both to "turn" and to "reverse", and the noun *tropae* which means "transformation". The modern use of entropy has developed into complex statistical quantum formulas regarding thermodynamics and information theory. However, the application to cosmology remains closer to its dictionary definition and to the ancient sense of cyclic transformation found in the Yuga system.

> "Entropy...The degradation of the matter and energy in the universe back to the ultimate state of motionless uniformity".

The correlation of this concept of entropy as a turning or revolving process that, at a measureable stage, reverses towards universal degradation is intensely applicable to the cycles of time found in the Yuga prophecies. In other words, it is inside the corrugated folds of the spiraling Yugas of time that amorphous energies are compressed and compacted into the three levels and densities of matter: gaseous, liquid, and solid. It is in the release from the pleats of time that matter and mankind return to their spirit state. That this spiraling fate is now approaching mankind as a species will be the core research guiding this work. Throughout, I will conjecture that to search for the current of levity is a valid exercise for us as individuals, in that an entropic, vorticular closure for each of us remains an inarguable fact.

I have provided in this opening, a degree of technical information, as I do not want to present this ancient prophetic tradition concerning "the end of time" as an article of faith or as a belief system, but rather as a carefully reasoned and scientifically plausible contemplation. I feel that the understanding of time one can gain from the philosophy of the Yugas is as, or more. important than its power of prediction. For example, the world did not suddenly become more materialized and mechanistic during the last 240 to 252 year period, the world always had these aspects and potentials. However. it was a change in the perceptual and conceptual functions of a small elite who then directed a turn in our development. Through several subsequent chapters I will summarize the methods by which the destiny of our species has been deviated.

The Universe cannot exist unless the capacities to perceive and respond to its presence also exist. The cosmos extends its "coming into being"

through perception, by means of language, that is in the signs, sounds, images and numbers which temporarily fixate combinations and correspondences, thus giving specific, symbolic qualities of the epoch or stage in the development of the perceiving consciousness and its embodied instrumentation.

TIME, PERCEPTION AND THE ACT OF CREATION

This thesis will be founded upon certain fundamental assumptions concerning the nature of the cosmos we inhabit. These ideas are likely to be unfamiliar, at least to some readers, thus I place here a warning about the contents of this package.

The energetic processes and substances comprising the universe hold only a potential for manifesting as an actual physical reality. That actualization is dependent on the existence of a pre-prepared, intelligible, perceiving consciousness which takes the shape of a triad.

1. The perceiver (noun)
2. The activity of perceiving (verb)
3. The perceived (object)

Frame P.3

Simply stated the world and universe enters into the manifest state, entirely within the act of a perceiving and conceiving consciousness. Furthermore, the aspects of the universe only change, develop or transform by means of a transformation occurring in that perceiving consciousness. I will also emphasize the nature of time and its special role in relationship with consciousness and to the space and forms in which the embodiments of this perceiving-creation is occurring. Time imposes upon us the observation that every moment emerges from the previous moment passing through the measureless membrane of the *present moment.* This moment to moment transformation of the past into the future is the work of our memory and our imagination, two functions that bond us with, and to, the invisible force from which the universe is emerging. All creation is occurring within an eternal *present moment* that paradoxically cannot exist in time nor space but purely in consciousness.

GNOSIS REVISITED

I will throughout make reference to concepts that have been, or can be, associated with the very ancient, puzzling, heretical tradition known as Gnosticism. According to Gnostic beliefs, the greatest obstacle to the advancement of human consciousness has been conceptual and linguistic error: "Giving a name to the nameless." It is due to this error that we find our society stretched over an abyss between an irreconcilable duality: Monotheism and Atheism, with no third term upon which dialogue or integration might occur. Perhaps Gnosticism can fulfill that bridging role.

The three dominant monotheisms which originated with and presently bind Western civilization, all adopted dramaturgies with one very simple element: One God, having a specific name who actively intrudes in the social, political, sexual and military endeavors of human life. This specified and anthropomorphized "God" guides nations through the rise and fall of Empires as well as through the, not uncommon, plagues, famines and floods. In this way the deification earns devotion and fear in their constituency. Consistent in the three mid-Eastern European monotheisms the ultimate "God" communes through a historic figure, (ruler or military), who is instrumental in establishing an institutionalized church. The Gnostics believed that collective narratives, such as those found in monotheism, as well as in its antithesis, atheistic secular scientism, distorts human thought and perception on all levels and can only direct the formation and goals towards corrupt and self-destructive conclusions.

The following Gnostic verses address this very question and also speak to the human yearning for freedom from the millennia of warring monotheisms which continue to fracture the potential spiritual wholeness in humankind. The Gnosis is a deep intuitive sense of the presence of an unspeakable mastery beneath all knowing and all being.

> Thou art alone the non-containable
>
> And thou art alone the non-visible
>
> Thou art alone the non-subsistent
>
> *Gnostic hymn, preserved in Coptic*[5]
>
> O thou beyond all things
>
> what else can it be meet to call thee?

How can speech praise thee?
for thou art not expressible by any speech.
How can reason gather thee?
for thou art not comprehensible by any mind.
Thou that art alone ineffable
while thou engenderest all that is open to speech.
Thou that alone art unknowable
while thou engenderest all that is open to thought....
End of all things art thou
and one and all and none,
Not being one nor all, claiming all names
how shall I call thee?[6]

Opening lines of a hymn by Gregorius the Theologian

THEMATIC PROLGUE

"Consciousness does not exist
It is existences"

The basic premise of this work as expressed in the above quotation from the ancient Hindu philosophy can be summarized in this way: the most fundamental ground of creation is not *Energy/Matter* nor *Time/Space* nor *Light/Darkness*, rather it is Consciousness. Creation is a single thought occurring within a Universal-Conscious-Being. This Universal Being and this thought is beyond the comprehension of the human mind yet enters the awareness of some individuals, because our species is an integral part this cosmic moment. And is present in creation as the Laws of Nature.

Indianoligist, J. Woodroff reflected on this view in his important work on the Hindu tradition, *The Serpent Power*"

> In the phenomenal world there is nothing that is neither absolutely conscious nor absolutely unconscious; consciousness and unconsciousness are always intermingled.

Somethings, however, appear to be more conscious and some more unconscious than others.

This due to the fact that "CIT" (i.e. consciousness) which is never absent in anything, yet manifests itself in various ways and degrees. The degree of this manifestation is determined by the nature and development of the mind and the body in which it is enshrined.[7]

This primacy of consciousness situates the potentials and purposes of the created universe on a completely different ground than that of monotheistic doctrines as well as the 19th century materialist, mechanistic theories of Charles Darwin and the fraternity of British industrialists and merchants who prompted and promoted this pseudo-scientific agenda.

An ontological inquiry into this pervasive principle, requires the definition of two pairs of seemingly oppositional terms, they are; Manifest/Unmanifest and Physical/Metaphysical

Manifest

Mani-fest literally means "Struck by the fist (fest) or hand" More generally defined; "To be readily perceived by the senses and/or accessible to reason or logic". The square is the geometric symbol of manifest existence. The square comprises two oppositional yet complimentary pairs with 90° angles = 360°. This is the number of degrees it shares with the universal pre-manifest stage of the circle.

Unmanifest

Phenomena or concepts which are yet to be manifest, identified or formalized and including those that have previously manifest but have departed or been lost to perception or existence.

The thousands of species of plants, birds, fish, reptiles and animals driven to extinction by civilization is a potent example of this concept. We are presently engages in a vast extinction episode which if undetered will precede to the extinction of the present form of humankind.

Metaphysical

Sublimated or super-sensible relatedness, beyond immediate perception yet acting as an intermediary between aspects of the physical world with the subtle or spirit realms.

The principle of metaphysics is found in geometry, for example, in the relationship of the side of a square to the diagonal of that square. As with this permanent proportion of the square, every form and species of nature holds a "seed idea" which originates and eternally persists in a pre-manifest metaphysical realm.

Physical

Conforming to the identification or substantiation found in nature and the laws of physics. The physical is the contrast to the purely mental, moral and spiritual levels.

I am postulating throughout this book that consciousness partakes of both the manifest and the unmanifest, and of both the physical and metaphysical. Consciousness actually serves as a boundary between these oppositional states, the initial transformation of consciousness in the act of creation is Time and Space and these two experiential qualities share in that same infinite incomprehensible presence at the core of existence.

The Hindu concept of the Yuga and the End-of-Time also offer an image as to how consciousness manifests both the experience and concept of existence.

> Desiring to manifest the thought of all things (the Immensity) vibrates and is transformed into the primordial sound with the nature of a cry. It shouts forth the universe with Its voice, which is not distinct from Itself.... That is to say, It thinks and speaks the universe. Hence the Sanskrit word "Sabda" (sound and word), which are the nature of "Nada", are, at the beginning of creation, residing in all created things.
>
> Nada Brahma

The essential words in the above quotation are the first word "Desiring". Ancient thought considers desire to be the most powerful emotive force, responsible for the constancy of movement throughout every level of creation. The second word key is "Speaks". In many ancient Gnostic traditions, there is the belief that all forms and concepts, all virtues and vices, all events and objects, come into existence by transcendental means that are similar to the way humans transform thoughts into language and speech. It is in this parallelism that human-kind is the most akin to the creative origins.

The concept of the End-Of-Time grows more evident with each daily commentary on world events. Perhaps with vast alterations in civilization and collective awareness and behaviors the termination may not be provoked prior to the prophetic date given in the Yuga system as recorded in the Linga Parânã.

If we can revive the ancient knowledge of cyclic time, future generations may prepare our inner capacities to confront our inevitable destiny with clarity, courage and a deepening understanding of the plan and purpose of creation.

Eisen. M & Winkler, R, *Laws of the Game,* New York, Harper and Row, 1983, Pg. 141

Gurdjieff as quoted in - Farrel, Joseph, *The Philosopher's Stone,* Washington State, Feral House, 2009, Pg. 152-157

Hostel. Denis, *Fabric of the Universe*, New York, Crown Publishers Inc. 1976

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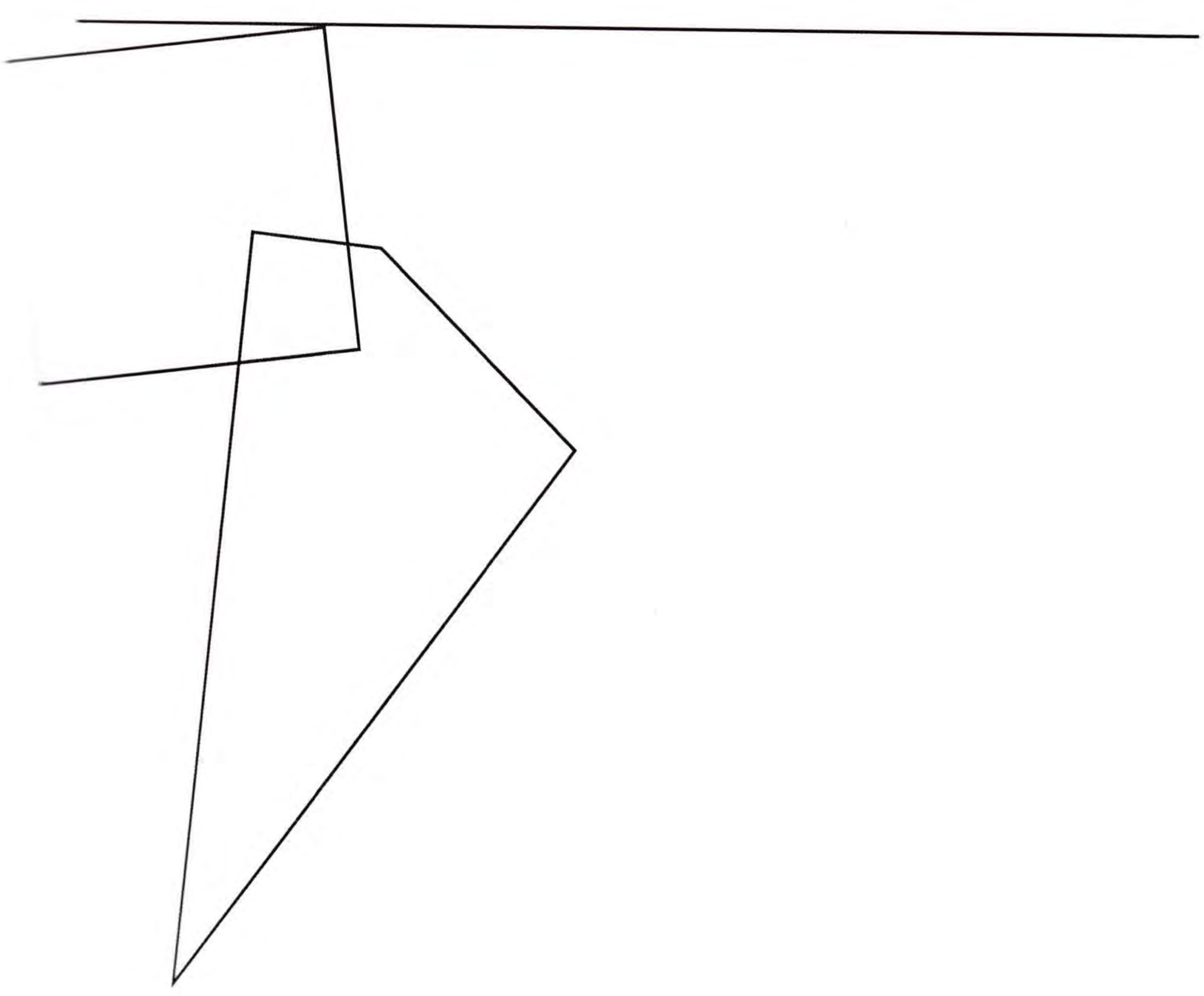
Jonas. Hans. The Gnostic Religion, Boston, Beacon Press, 1963

Ibid

Woodroff. J. The Serpent Power, Pg. 30

1

The Hidden Principles in Space and Time



It took an incredible decadence for man to accept materialistic theories such as those of Lamarck and Darwin. All traces of confidence in a divine order and harmony, and of legitimate pride, must have vanished in our lack of reaction against the science that lowers us to the brute state of so-called prehistoric man or anthropoid. Those who have steered humanity towards such stultification are mad men or criminals.

R. A. Schwaller De Lubicz.[1]

SHROUDED BEGINNINGS

Very often, books have a distinct formality indicating the beginning. One finds a succession of preliminary formats, avant-propos, or notes from the author, translators or publisher, then, there are often acknowledgements and possibly a foreword, then a table of contents and an introduction. The reader then unmistakably realizes that they have reached the beginning. This book will be concerned with the theory and the great mystery of beginnings: beginnings of the universe, of life, of Earthly nature and perhaps most importantly to us, the beginning of our species. I will be exploring some of the most ancient texts and traditions that have, through mythology, art, geometry, number, Astro-Architecture and other measures, sought some cohesion and comprehension of this great question of origins. Because we inhabit a universe dominated by curvature; the curvature of time and space as well as the curvature of form and movement, the question of beginnings always ultimately leads to the question of destinies.

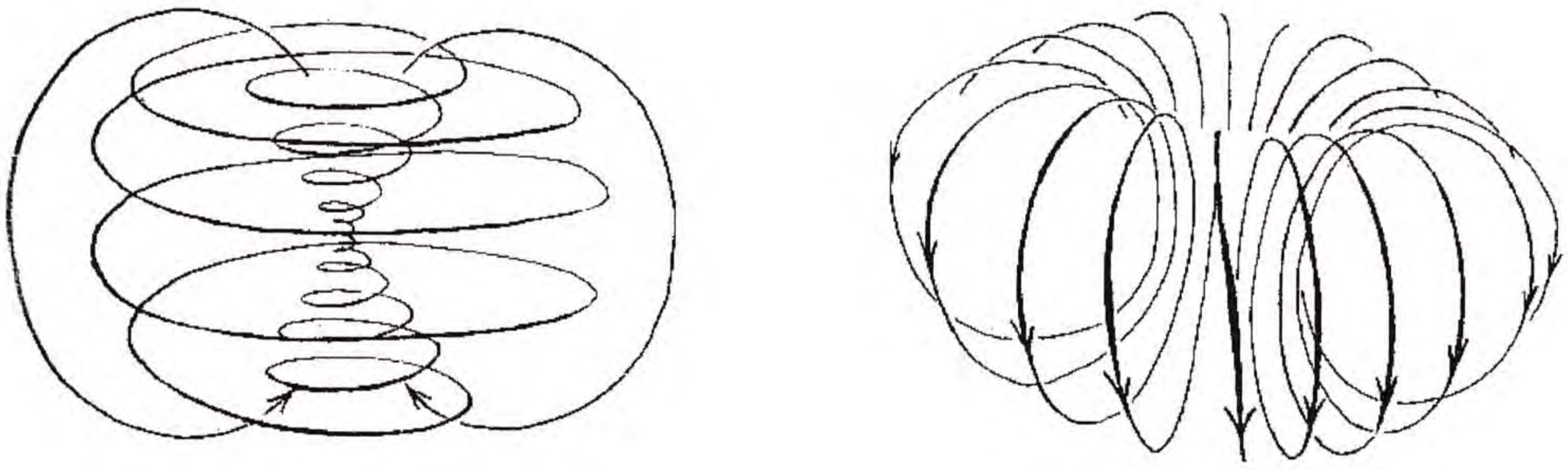


Figure 1.1 – Torus DoughnutCaption: The two patterns of vorticular motion.

When considering beginnings, in a broad cosmic sense, the nature of questioning also takes on this universal circularity or "cyclosis", as the Greeks referred to it, in which, the What, Where and When, lead inevitably to the Who, How and Why, and then perhaps into the spiraling path of the compound questions such as, What if? How much? How many? and for What purpose? The answers that have been provided to us by our modern world (dominated as it is by science and technology under the control of corporations and commerce) are for many seemingly less and less satisfactory. We can no longer prevent ourselves from observing the effect of our civilization, the corrupting desecration and extinguishment of the natural environment, as well as the distortions of human physicality and psychic balance. These modern theories of beginnings, predominantly Darwinism. in biology and sociology, and the "Big Bang" in cosmology and astrophysics, provide only the most empty and superficial mechanistic response to the quest and the questioning of our often tragic, violent and uncertain condition. These theories of beginnings, referred to as "Evolution" and the "Big Bang", seem actually to contribute to the attitudes and drives by which we enact and instigate our own demise.

I will be focusing upon the theory of beginnings and destiny called the *Yuga* system or the Maha-Kalpa in ancient South India. According to ancient texts and oral traditions this progression of *Yugas*, or stages of time, has been observed and measured for at least the last 18,000 years, and the structure of the entire process of over 60,000 years has somehow been known and transmitted from an unknown antiquity. The word *Yuga* translates as turning, spinning or circling. The *Yuga* system and its philosophy, in addition to providing precise intervals of time, as well as the effects of these on human development and the human spirit, also delves into the pattern of creation, of destruction and of renewal. The *Yugas* also indicate something of the purposes of life and of the ultimate destiny of this process towards the embodiment of Consciousness.

The *Yuga* duration of time, as I will develop, is based on the unchanging geometry of form, structure, and process, as well as the vibrational principles which underscore cyclic movement, sound, musical intonation, and harmonic resonance. As the ancient philosophers recognized, these principles are fundamental to both the created world and to the enduring aspects of our perception and experience of life.

The *Yuga* system of time is structured around a universal inverse relationship between vibrations, with the form and qualities of an object emitting those vibrations. I will describe this using a vibrating string but windpipes or drums could equally be used as models.

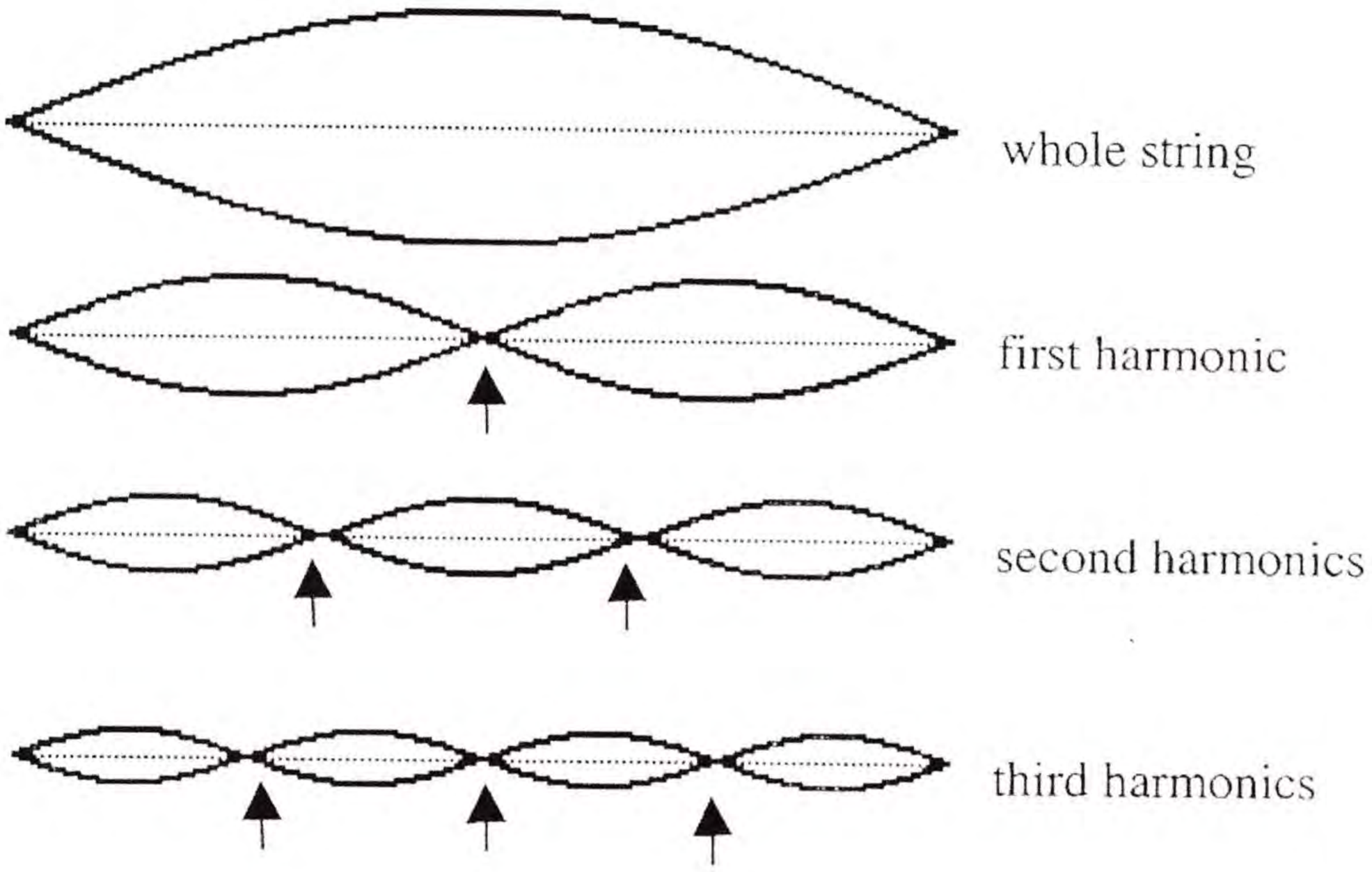


Figure 1.2 - Law of Harmonic Resonance

The frequency of the vibration increases to the inverse of the division of the string.

A significant unchanging phenomenon arises in this experiment: Specific vibrational tones are produced from specific fractions of the string:

First Harmonic Octave →	Ratio of 2:1 wavelengths Produced from a division of 1:2 string length
Second Harmonic Fifth →	Ratio of 3:2 wavelengths Produced from a division of 2:3 string length

Frame 1.1

This inversion is graphically shown in Figure 1.3 while the musical application is pictured in Figure 1.4.

	NOTE	H M (FOURTH)	A M (FIFTH)	OCTAVE
VIBRATION	1	$\frac{4}{3}$	$\frac{3}{2}$	2
	6	8	9	12
STRING LEGNTH	12	9	8	6
	1	$\frac{3}{4}$	$\frac{2}{3}$	$\frac{1}{2}$
	NOTE	A M (FOURTH)	H M (FIFTH)	OCTAVE

Figure 1.3 - Inversion of vibration and string length

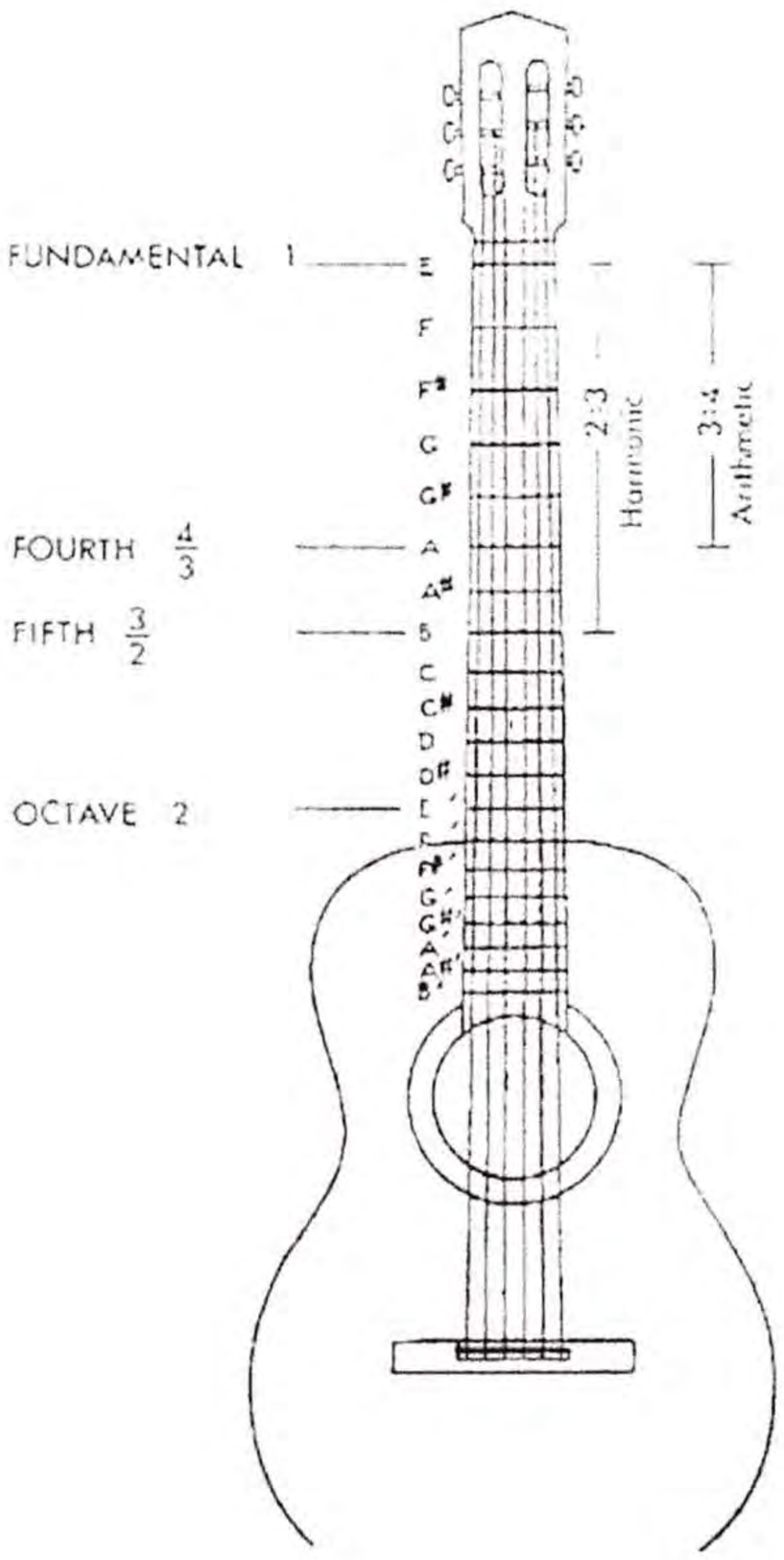


Figure 1.4 - Musical Application

A tightly stretched string will produce a musical tone when plucked. By fretting or dividing the string length one finds that shorter and shorter lengths yield higher and higher tones. If the divisions are made in precise whole number portions, the sounds will be consonant and musical.

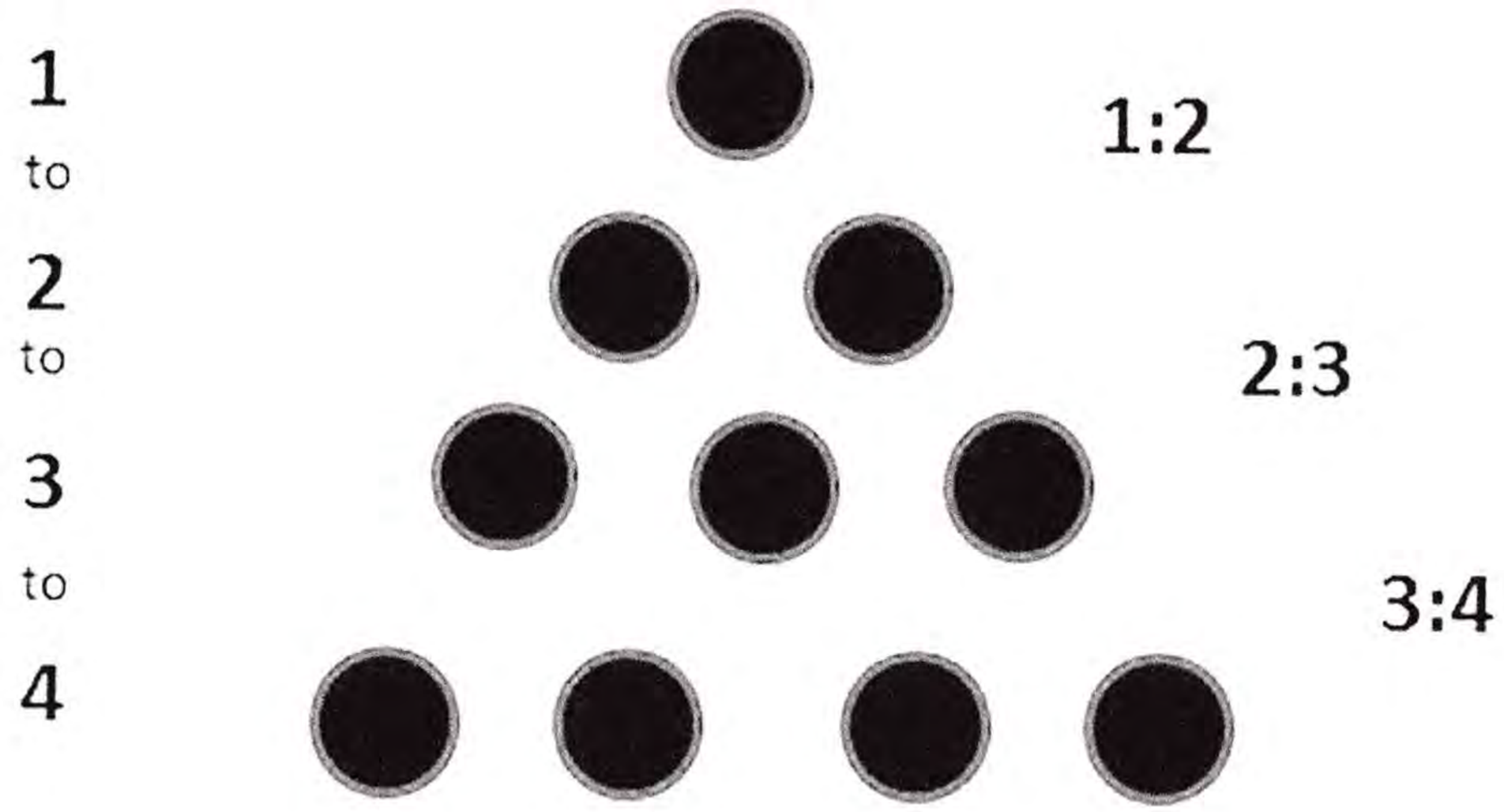
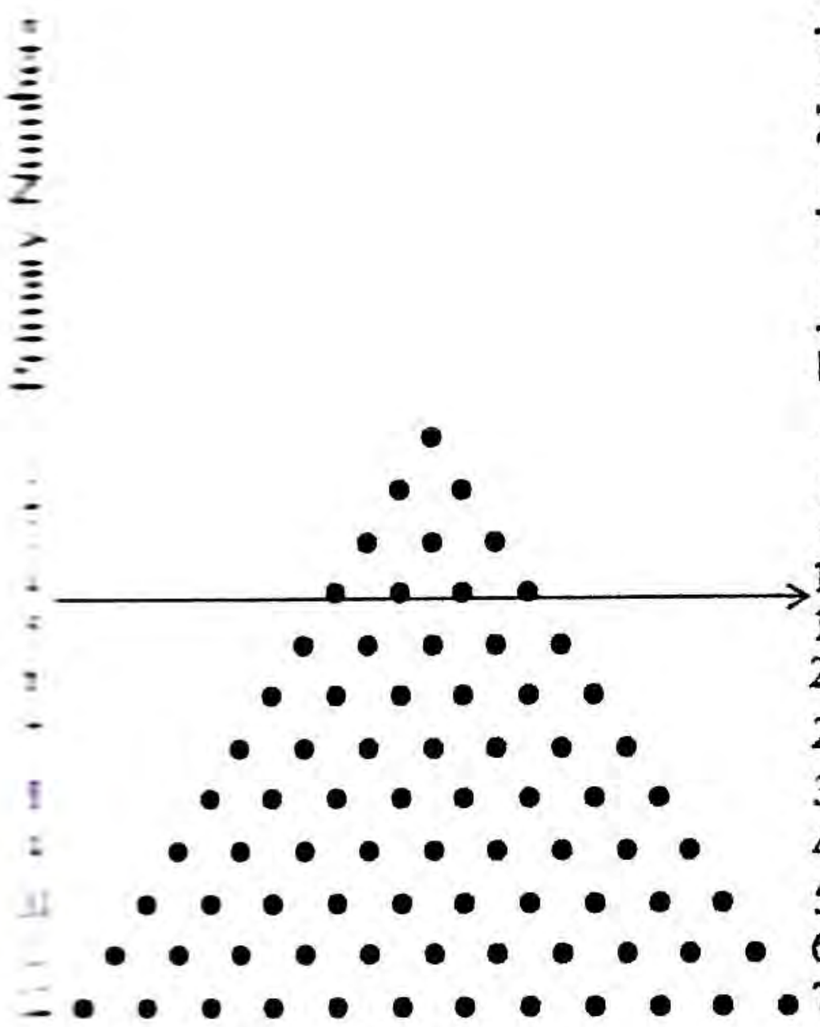


Figure 1.5 – Triangulation and Numeric Ratios of Sound and Time

The *Yuga* unfolds in four distinct ages similar to the pattern of harmonic vibration. Since antiquity this division has been called The Four Great Ages: "The Golden Age", "The Silver Age", "The Bronze Age" and lastly "The Iron Age". These four ages are phases, or successive "seasons", each with a progression of varied yet inter-related tendencies and characteristics. The duration of these Great Ages follows an inverse of the most primary additive progression: the first age or "Golden Age" is four *Yugas*, the "Silver Age" three *Yugas*, the "Bronze Age" two *Yugas* and the final age, the "Iron Age", or age of Kali, has only one *Yuga*. The graphic arrangement of 1, 2, 3, 4 units produces a diagram with ten units that since ancient times was called The Tetractys.

As outlined above there are ten *Yugas* necessary to express the four ages of humankind and the natural world. This grouping of ten *Yugas* forming four ages was termed a "Kalpa", and is the root for our word "calculation" as well as the basis for the mathematics of ten numbers referred to as the decimal system. The first four levels of triangulation were given the name tetractys by the ancient Pythagoreans.

Triangulation of Number



The Formula for Triangular Number (even)

$n = 4 \quad (n+1) \times \frac{n}{2} = 4 + 1 \times 2 = 10 = \Delta 4$

$n = 12 \quad (n+1) \times \frac{n}{2} = 12 + 1 \times 6 = 78 = \Delta 12$

The Formula for Triangular Number (odd)

$n = 7 \quad n \times \frac{n+1}{2} = 7 \times 4 = 28 = \Delta 7$

$n = 11 \quad n \times \frac{n+1}{2} = 11 \times 6 = 66 = \Delta 11$

The Triangular Formula for Squares

$n = 12 \quad n^2 = 144$

$\Delta 12 + \Delta 11 = 12^2$

$78 + 66 = 144$

Figure 1.6 - Triangulation with the Tetractys as the Seed of Form

The above diagram reveals that every number possesses not only a square value i.e. $4^2 = 16$, but also a triangular value which I will designate with the following symbol Δ (i.e. $\Delta 4 = 10$). Both the triangle and the square of a number can be derived from triangulation.

The square of a number is obtained by adding its triangular number with the triangle of the preceding number in the arithmetic series, progressing with the successive addition of one.

For example: $\Delta 10 = 55$

$$+ \underline{\Delta 9 \ = 45}$$
$$100 \ = 10^2$$

It will be demonstrated that triangular and square numbers mark key intervals in the unfolding *Yuga* cycle, especially $\Delta 10$, $\Delta 11$, $\Delta 12$.

The triangulation of four is the apex of this symbolic and mathematical process.

Frame 1.2

TETRACTYS AS THE TREE OF LIFE AND UNIVERSAL VIBRATION

The word Tetractys divides into two parts:

1. "Tet", being the Greco-Roman word for the number four

2. "Tractys", as in our contemporary term "Tractor", means an implement, to pull forward, to carry or draw forth.

The Greek philosophers would layout the Tetractys with pebbles placed on a sandy shore. They would often pause, as the pattern grew, to debate, argue or remain silent in contemplation. This process became known in mathematics as the "Triangulation of Number". The underlying logic of triangulation emerges from the potentially endless activity of a successional addition of theoretically infinite number of units. One could imagine replacing the faltering mechanistic "Big Bang" theory with triangulation as a model for the source of the patterns and numbers appearing within the endless expansion of our universe. The energy motivating this expansion, as was believed by the philosophers of old, would be a fascination of Universal Consciousness in viewing the unfoldment of endless potentialities of forms, variations and interactive eventfulness that exist within the purity of its Absolute Being.

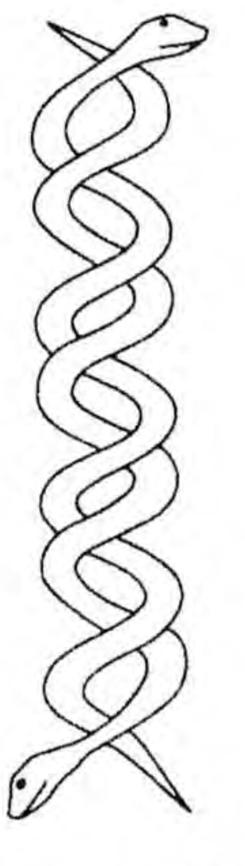


Figure 1.7a – Tetractys as Vorticular Motion

The whirling, folding, open and closing vortex of thirty-two strands forms an interlocked double helix, a possible material prototype for the form of the DNA. Molecular biologist Christopher Wills writes:"The two chains of DNA resemble two snakes coiled around each other in some elaborate courtship ritual." [2]

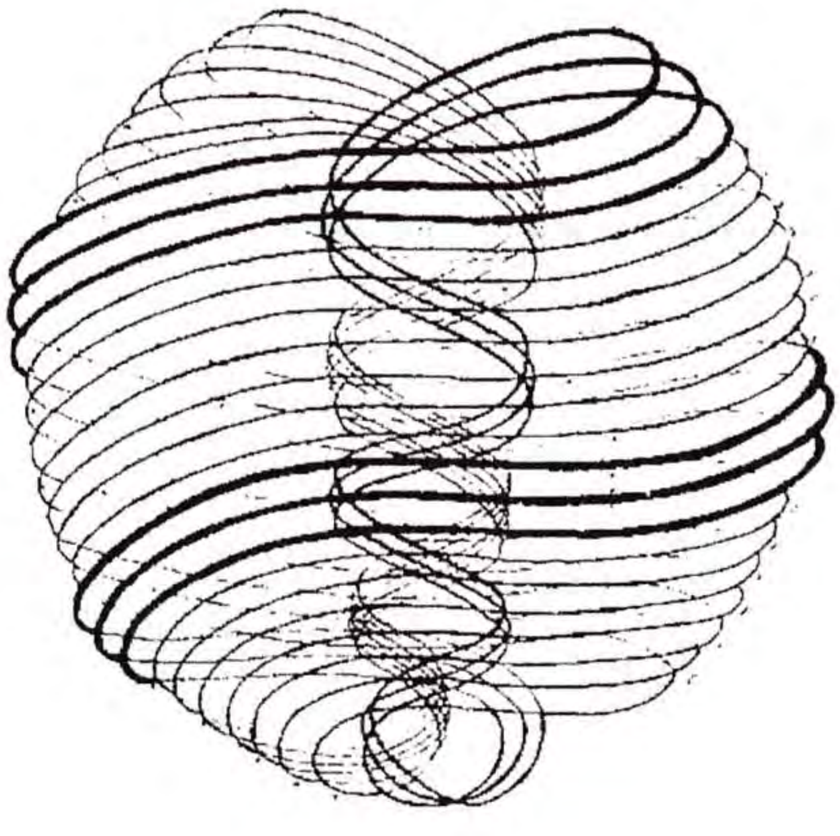


Figure 1.7b – Tetractys as Vorticular Motion and the Formations of Life

While the internal coil reflects the double helix, the outer coil resembles the dual chambers of the heart. The following diagrams will show how these forms can be visualized from the patterning of the structure of time in the Yuga system.

Tetractys and Yuga

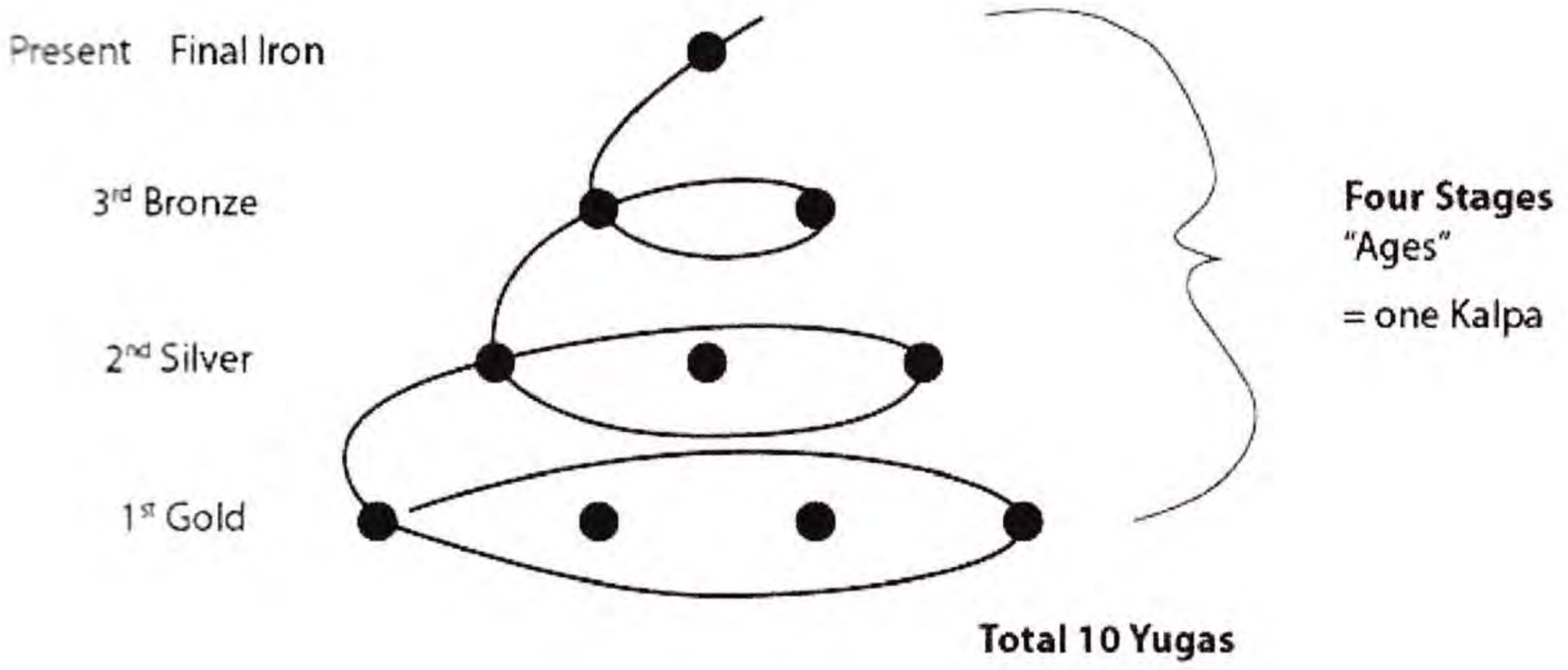


Figure 1.8a - Tetractys and *Yuga*

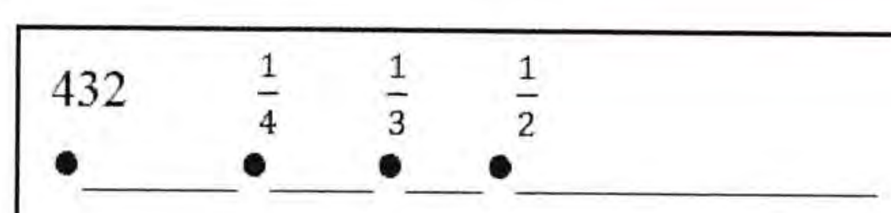
4	2016		Dawn	58,038 B.C.
	20160		**1** SATYA = 24,192 years	56,022 B.C.
	2016		Twilight	35,862 B.C.
3	1512		Dawn	33,846 B.C.
	15210		**2** TRETA = 18,144 years	32,334 B.C.
	1512		Twilight	17,214 B.C.
2	1008		Dawn	15,702 B.C.
	10080		**3** DAPARA = 12,096 years	14,694 B.C.
	1008		Twilight	4,614 B.C.
1	504		Dawn	3,606 B.C.
	5040		**4** KALI YUGA = 6048 years	3,102 B.C.
	504		Twilight	1938 A.D.
Total	60,480			2,442 A.D.

Figure 1.8b - The Four Great Ages

As the diagrams indicate, the Tetractys of the Yuga/Kalpa and the four great ages is an opening and closing vortex of time.

THE FOUR-TONE STRUCTURE OF MUSIC, HARMONY AND NATURE

We have begun an exploration of some of the ways the numeric and geometric qualities of three-ness (triangulation) and four-ness (square) provides a foundational organization in both space and time, form and substance (see Figure 1.6). I will include here the method of generating a musical scale by employing the numeric ratio from the Tetractys. The next figure graphically displays the wave form of the musical fifth, a note that is primary to harmonics and which is generated by the vibratory interaction of the primary feminine number "2" with the primary male number "3". Throughout this book I will propose that it is these harmonic principles, found throughout the cosmic order, which are responsible for the emergence of intelligent life in humanity as well as in the entire natural world, while at the same time indicating why it is not the tooth and claw survivalism of 19th century Darwinism. This is the same idea of harmony that prompted the statement by R.A Schwaller De Lubicz, cited at the beginning of this chapter.



If the string is fretted at the $\frac{1}{2}$ point, the vibration is twice the unitary tone.

A string length with frequency = 432 vibrations
Its division by $\frac{1}{2}$ = 864 vibrations = $\frac{2}{1}$
Its division by $\frac{1}{3}$ = its $\frac{2}{3}$ vibrates 648 = $\frac{3}{2}$
Its division by $\frac{1}{4}$ = its $\frac{3}{4}$ vibrates 576 = $\frac{4}{3}$

A seven-tone diatonic subset of c), with internal symmetry

ratios	432	486	512	576	648	729	768	864
rising	D	E	F	G	A	B	C	D
falling	D	C	B	A	G	F	E	D

Figure 1.9 – Divisions in the scale of 432

The scale with a 432 vibration for its fundamental tone, holds many important movements, forms and ratios intrinsic to the cycles of time known as both the zodiac precession and the Great Ages of the Yuga system as well as in relation to our planetary solar system.

Figure 1.9 shows the numerical properties from the division of vibration by 2, 3 and 4. The next figure, 1.10, gives a graphic image of the musical fifth 2:3.

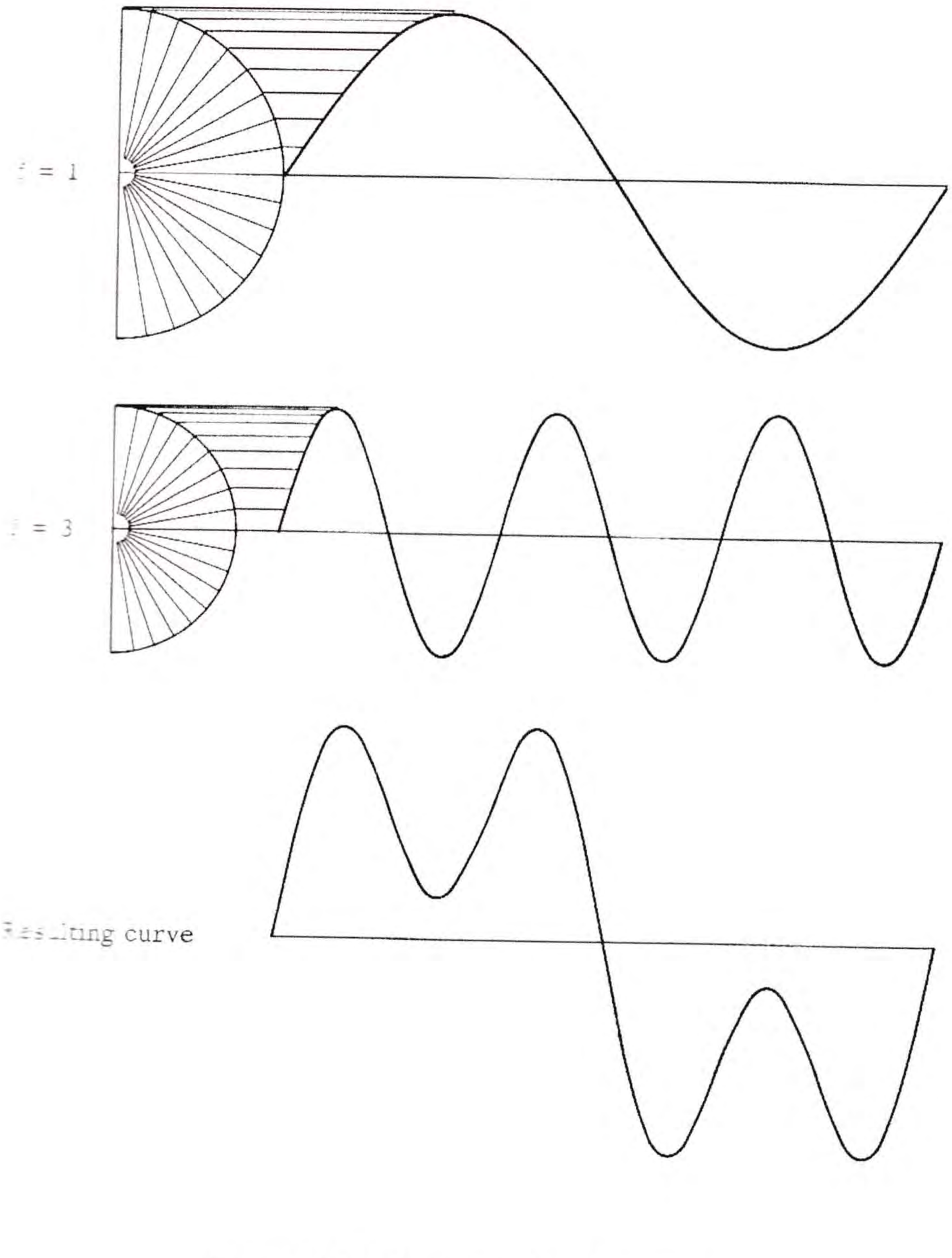


Figure 1.10 - The Formation of the Musical Fifth

The Division by 1/3 reveals the important musical fifth (wave pattern) as shown above.

THE TETRACTYS AS PHILOSOPHY AND COSMOS

Among the earliest known traditions utilizing geometry and number as a philosophical and symbolic language are the Greeks (Qabalah) and Hebrew (Kabala). The common foundation of these as well as several other less familiar Kabala (Egyptian, Phoenician, Babylonian) was the association of alphabetic letters with the ordinal numbers from 1 to 24. For example, A = 1, B = 2, C = 3 and so on up to 24. With this method alphabetic and word combinations are simultaneously associated with invisible vibrational frequencies, forces, emotions and thoughts. The oldest of all Kabala was that of the Babylonians which can serve here as a harbinger of a major theme that enters in later chapters. I suggest the reader might recall these numerical attributions of Babylonian Gods as they reappear as they reappear in the stories of the *Yugas*, the Tetractys and human destiny:

Shamash = Sun God = 20

Sin = Moon God = 30

Enki = Water God = 40

Enlil = Air God = 50

Anu = God of the Heavens = 60

Before discussing the relationship of the Hebrew Kabala with the Tetractys formation as found in the underlying patterns of time and space, let me add here that the contemporary data and computer based technologies are founded upon the same alphabetic / numerical attributions as was the very ancient Kabalistic occult tradition.

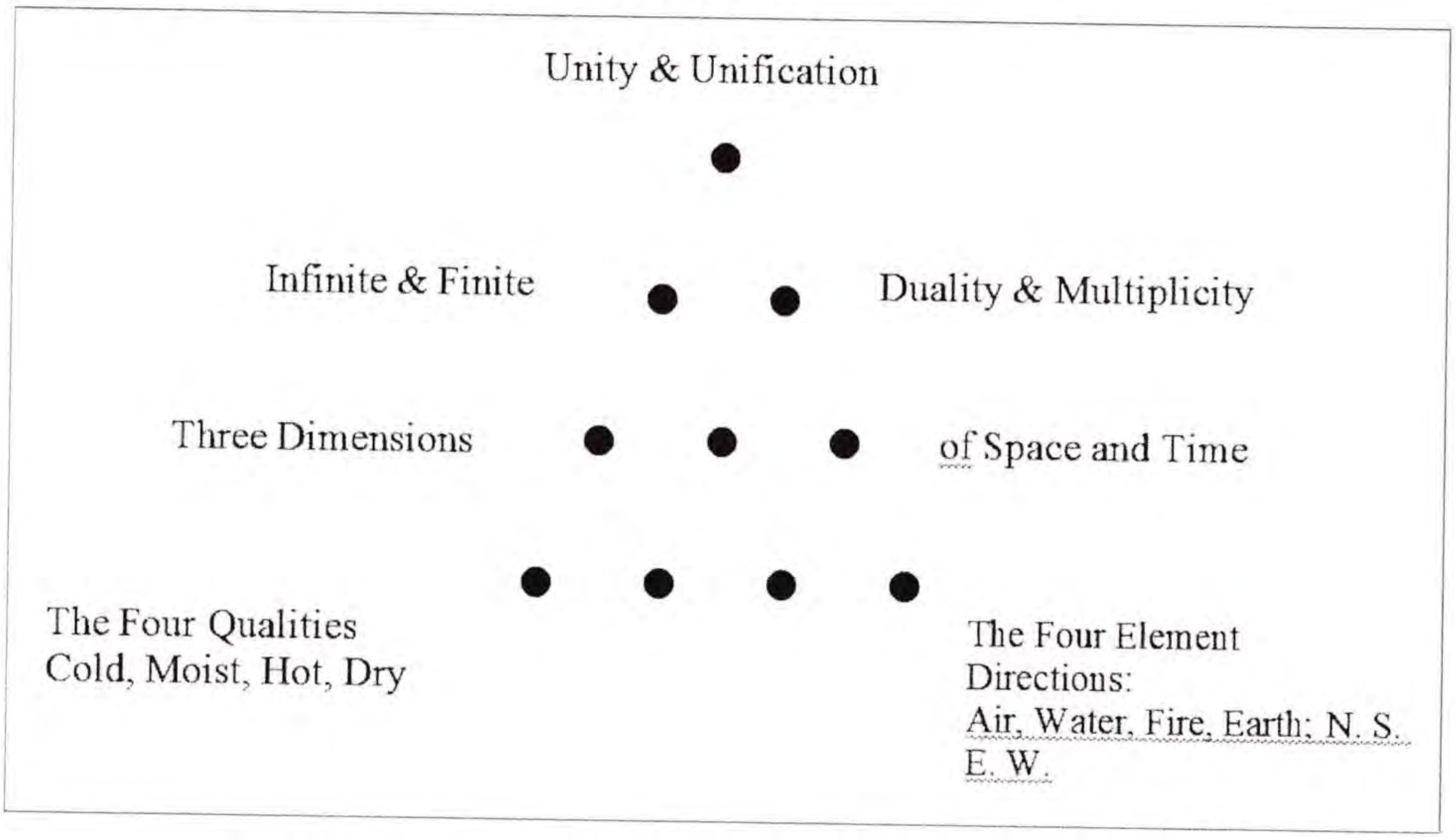


Figure 1.11a - The Kabala and the Tetractys - the 4 & 10

The four letters YHWH, of the name of God and the ten attributes of godliness and the ten sacred numbers, the Sephiroth.

1. Crown	2. Wisdom
3. Prudence	4. Clemency
5. Power	6. Grace
7. Triumph	8. Honor
9. Redemption	10. Kingdom

Robert Fludd, *Philosophia Sacra*, Frankfurt, 1626

Figure 1.11b - The Name of God: YHWH

The following is a series of figures (1.12a – 1.13c) which visually reveal the common source and relatedness of numbers, spatial order, musical vibrations, tones and scales, and other patterns that are also inherent throughout the worlds of space and time. These figures are not intended to be comprehended by all at this stage, their purpose here is rather to offer the readers some familiarization and the awareness that these figures can be reviewed or delved into when reference is made to them as we unfold the mystery of the *Yuga* system.

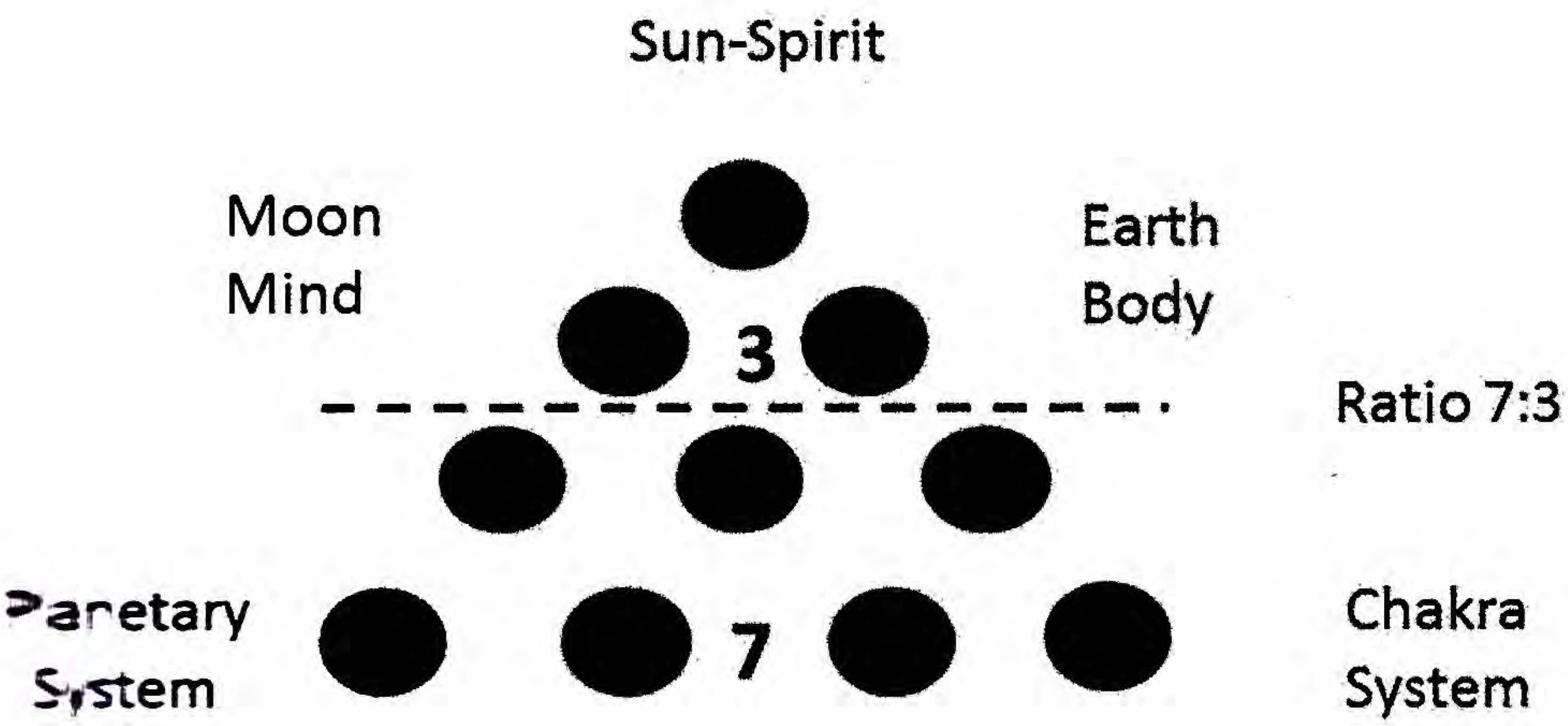


Figure 1.12a - The Tetractys divided into 3 & 7

The Tetractys can be divided so that each unit represents the key elements of both the solar system and the human system that are allegorically interrelated and involved in the embodiment of consciousness. The seven-fold lower division is symbolically consistent in that both the atmosphere and geological aspects of the Earth are seven layered systems.

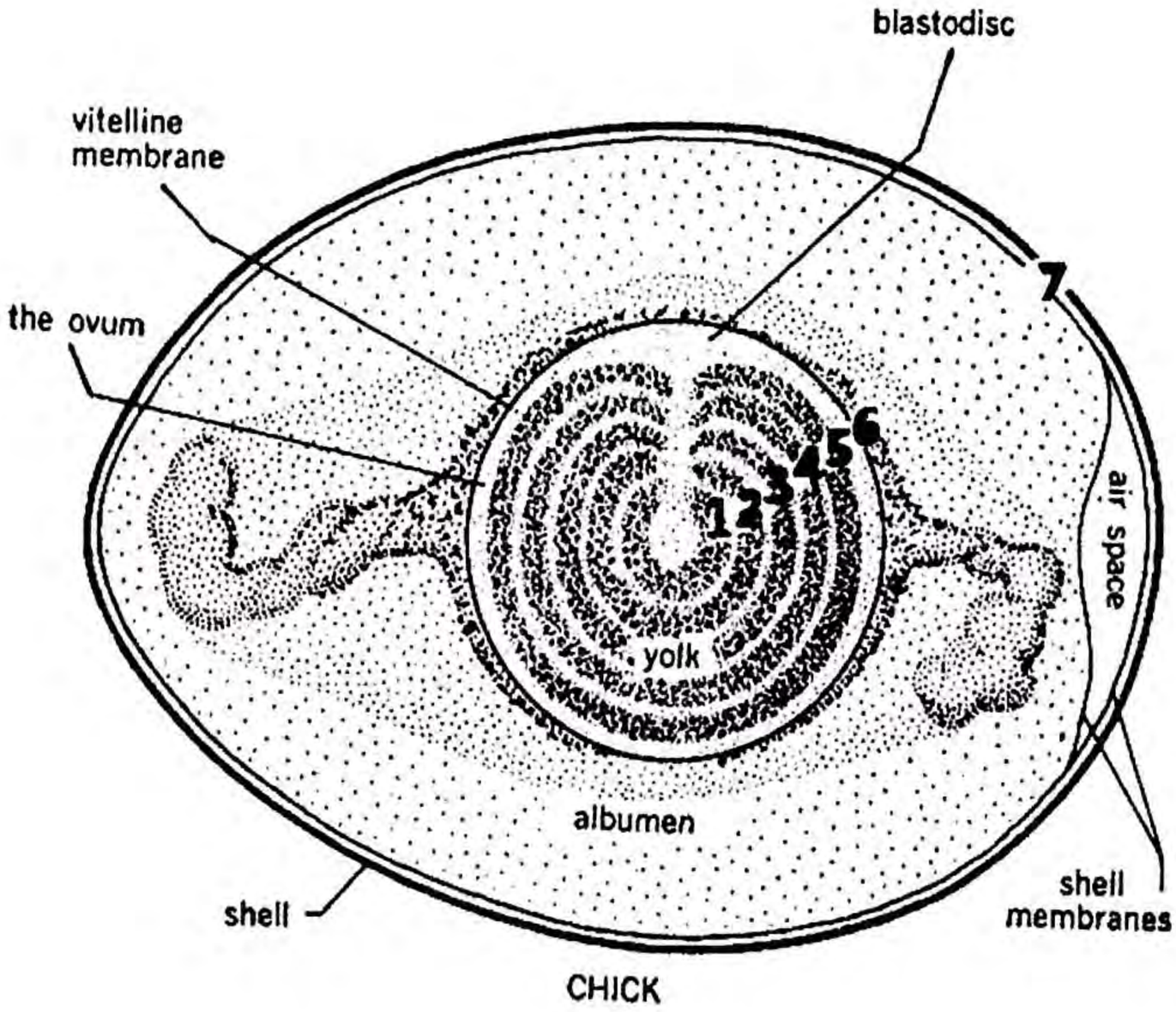


Figure 1.12b – Cosmic Egg and the Numbers 3 & 7

Image of the seven-fold membrane of a fertilized egg held within the three-fold structure of shell, albumen and yolk.

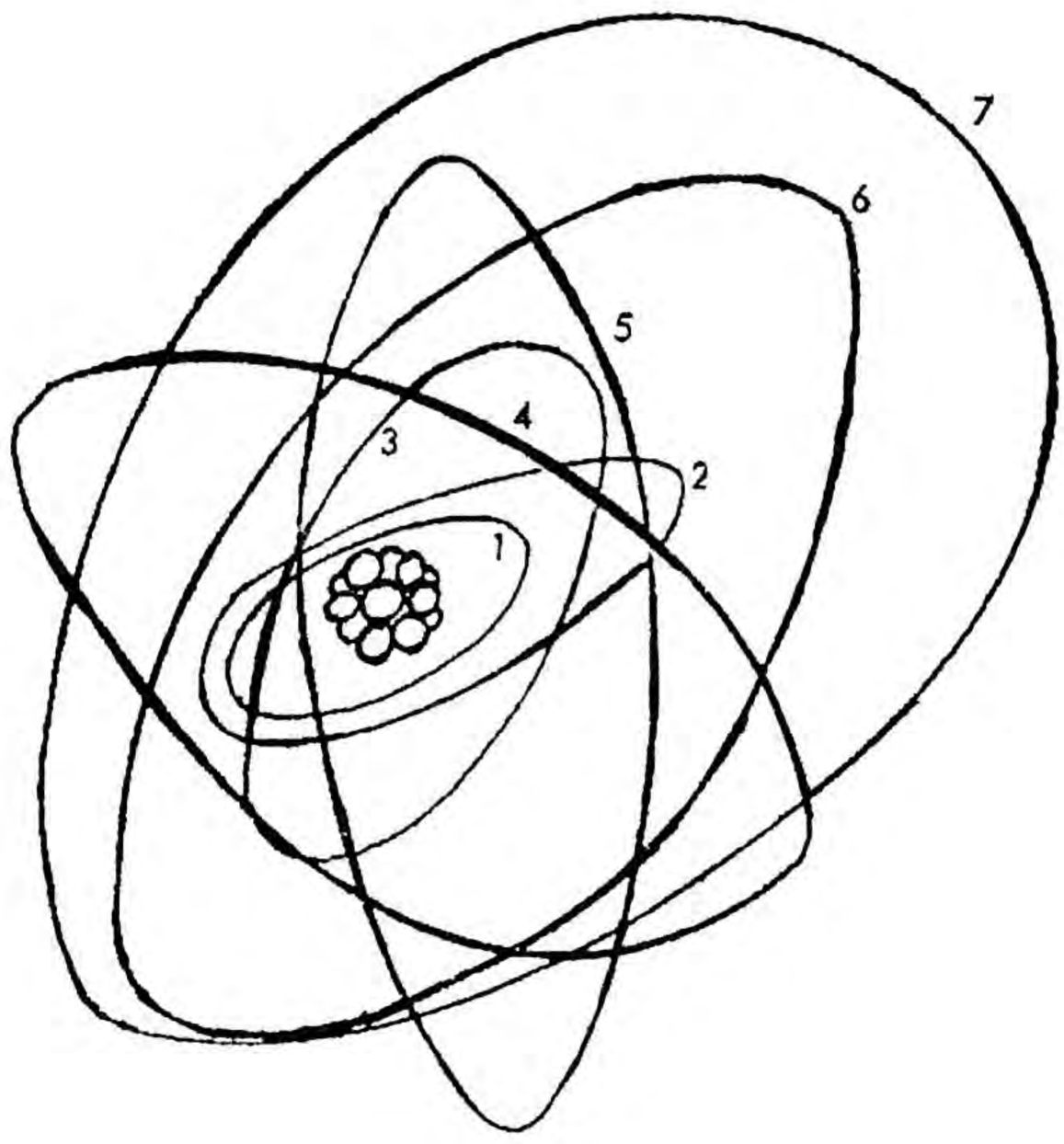


Figure 1.12c - Atom

The pattern of 3:7 occurs in the orbital model of the atom: 3 = proton, neutron, nucleus. 7 = the orbiting electron shells.

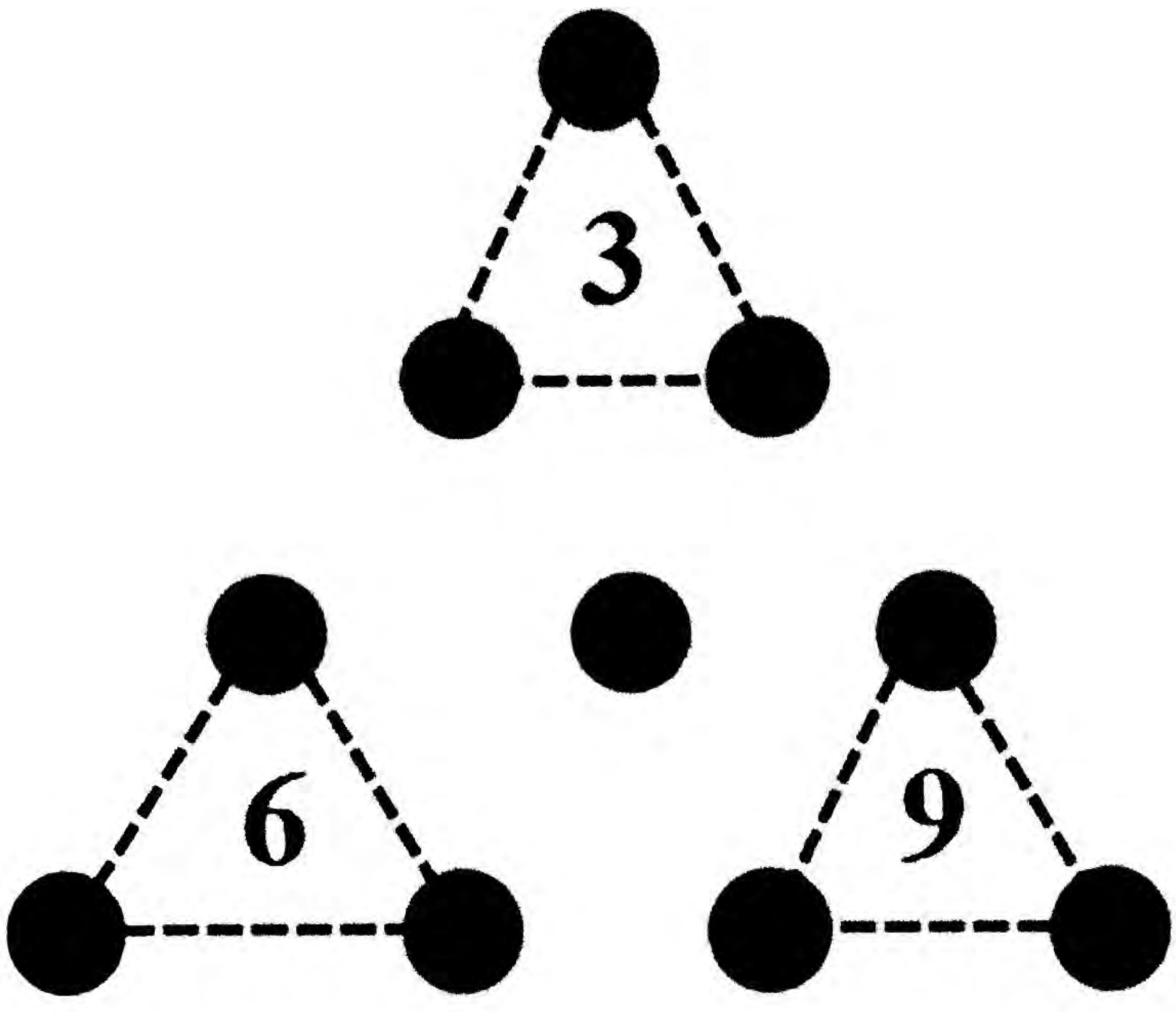


Figure 1.13a - The Division of the Tetractys into 1:9

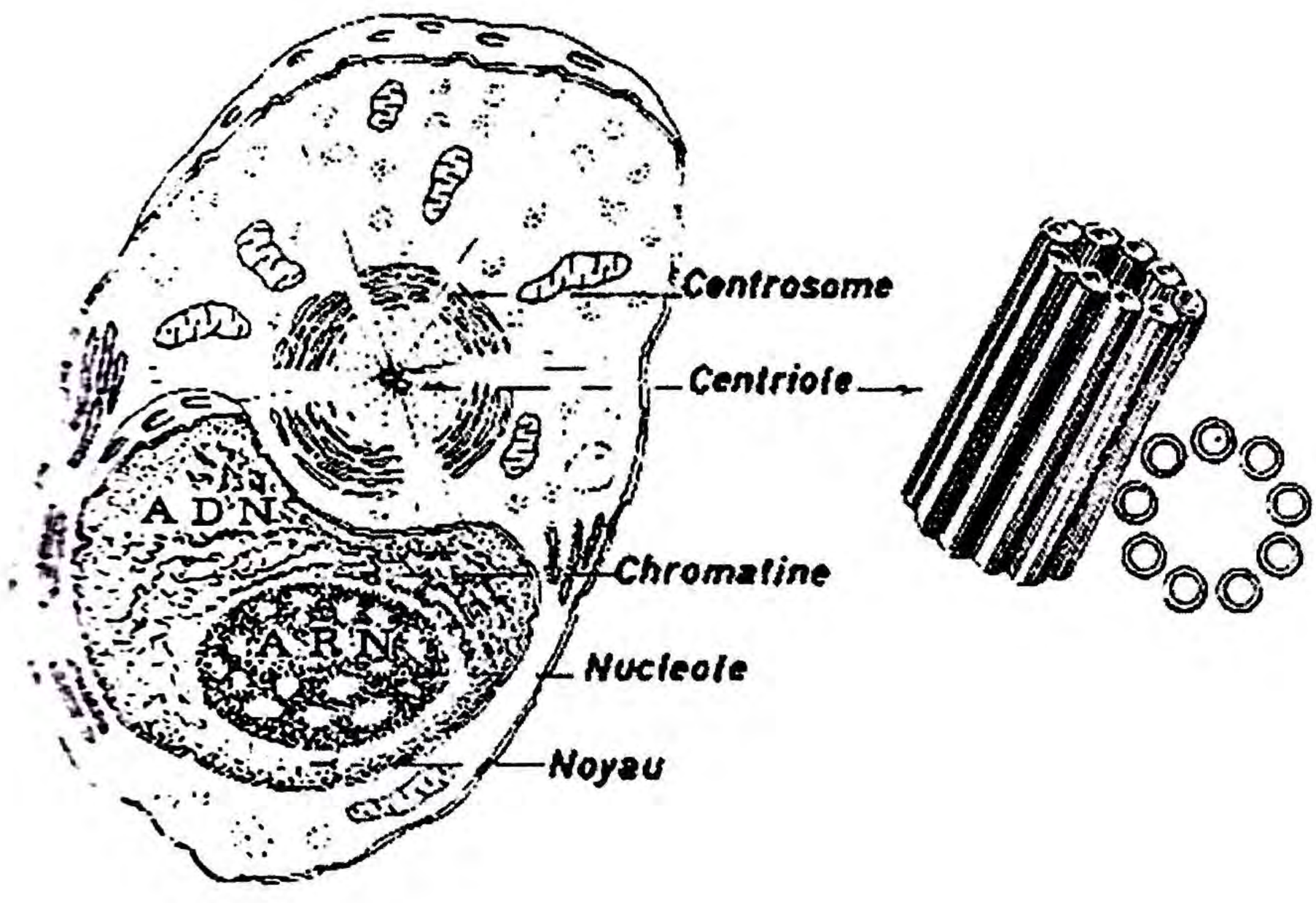


Figure 1.13b – The Division of the Male Sperm into 1:9

The male sperm is composed of a head with a long central tail. The tail, or centriol, is surrounded by nine threads or cilia that provide the force that the sperm needs for its contact with the egg.

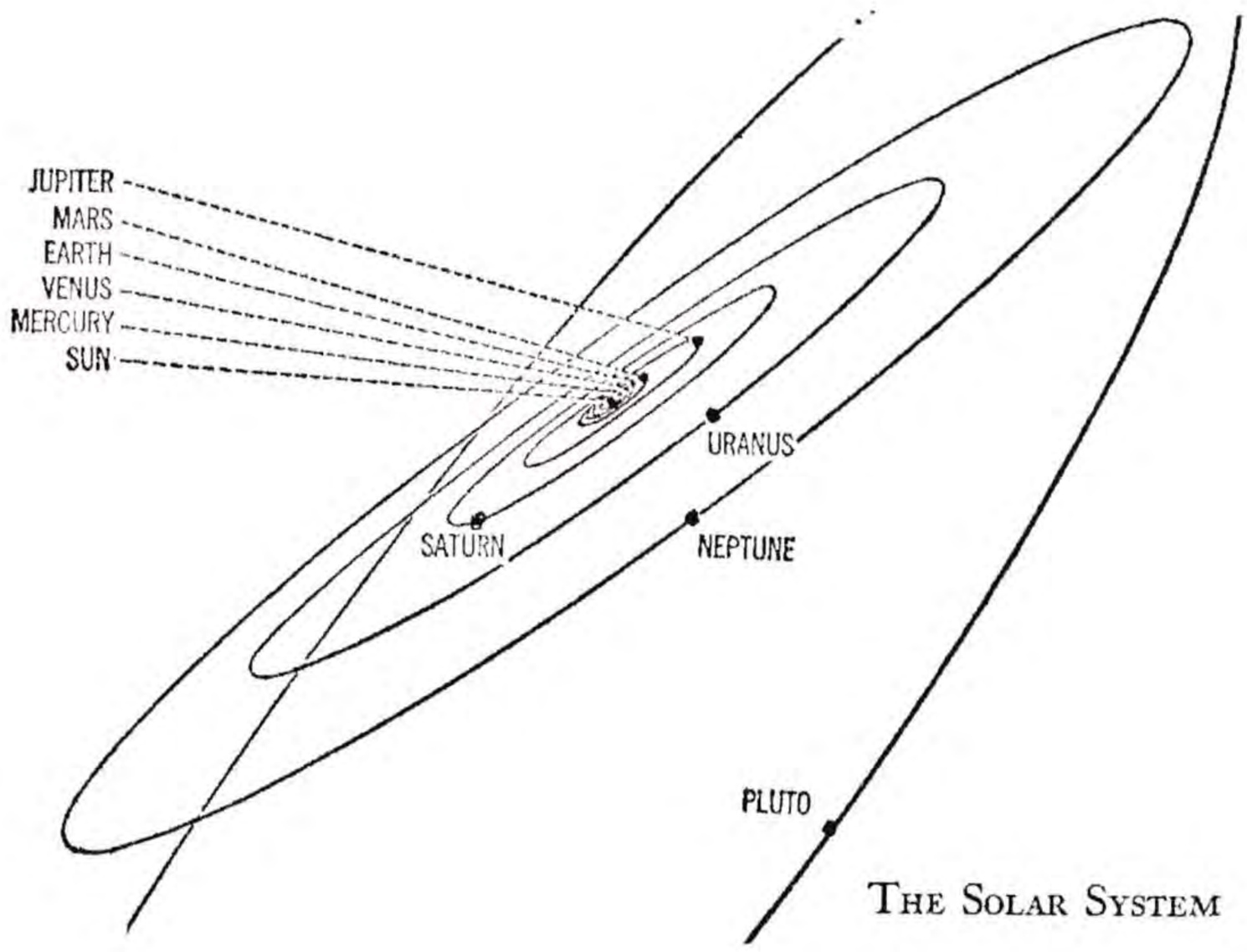


Figure 1.13c – The Solar System and the Division into 1:9

The nine planets arranged around the central Sun.

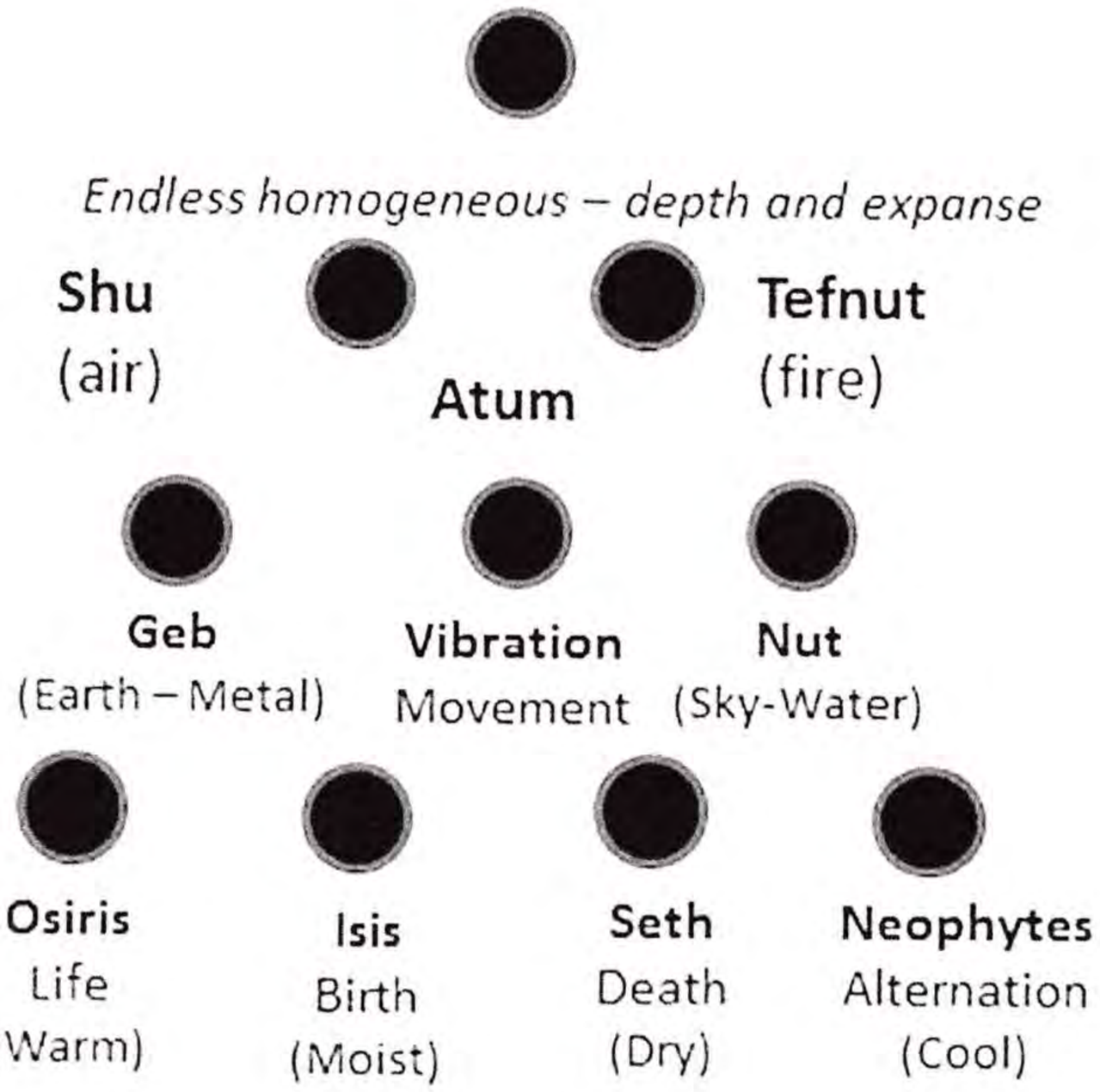


Figure 1.14 – Egyptian Pantheon and the Tetractys Divided into 1:9

Atum, the initial and singular embodiment of consciousness ejaculated the nine other principles of manifestation.

FOUR-NESS AS COMPLETION

This simple triangular arrangement of dot points was revered by the Pythagoreans as the "seed idea" of creation and by Hebrew Kabalists as the "name of God". Given that the structure of time manifests in the same arrangement as many of the most crucial forms and attributes of the universal genesis, one can read the message of the Tetractys as being Cosmic Time in the act of self-embodiment.

One can be confident that the Tetractys structuring of the *Yuga* system is a universal archetype. In addition to the mathematical potencies of the process of triangulation, the number four as the base, holds irreplaceable powers of organization on all the key levels of the physical world. Four provides a bonding pattern of two pairs having oppositional, as well as complementary characteristics:

East – West		Left – Right		Head – Feet
with	or	with	or	with
North – South		Up – Down		Front - Back

Frame 1.3

One also finds a fourfold organization in such formations as: the four qualities of matter, being either earth, water, air and fire or solid, liquids, gas and ether. Similar patterns can be found with the four cultures, four races, four seasons, the four castes and four sexualities.

To summarize, the completion number of the Tetractys is the number four. Four-ness manifests the first level of attainment in the qualities of complete symmetry, balance and uniformity of structure. These are the same qualities inherent in the initial unity, geometrically symbolized by a perfect circle. The square, however, converts the irrational circle into a measureable form. The triangulation of four presents the primary number field of our existence, that of one through ten. Four also holds within itself, the power of unification, duality and the formative power of the Trinity. In the symmetry of the square lies the power of self-reproduction and a potentially infinite multiplicity. This characteristic results from the fact that the diagonal of a square equals $\sqrt{2}$ (see Chapter 5).

This entire *Yuga/Kalpa* system is, as will be demonstrated, a grand synthesis and a cosmic analogue of the Tetractys and the four-fold lunar, solar and planetary orbiting patterns, as centered upon and relative to the fourth element, the Earth. This four-fold system will be developed as we proceed. The *Yuga/Kalpa* cycle also echoes the four typical stages, which all-living creatures undergo: childhood, youth, maturity and old age (See the Four Ages frame in the Preface). It particularly reflects the changes in consciousness associated with each phase of this bio-cyclicity. As with the genesis of all the myriad beings and aspects of creation, the *Yuga* cycle terminates with death and dissolution on all levels, micro and macro. The dissolution via the *Yuga* also brings forth an all-inclusive dynamic of transfiguration.

COSMOGONY: ANCIENT AND MODERN

A recent television documentary by the BBC, aired on Australian Broadcasting Television in early November 2010, presented a scientific version of the prevailing prophesies of the inevitable destruction of life on Earth, the planet itself and the collapse of our Sun. According to these accepted laws of modern Astro-physics the features of this modern prediction are both similar and yet very different from those of the ancient *Yugas*. Contemporary science considers the Sun to be approaching the third step in the theoretical progression of all stellar bodies, from an intensely brilliant "White Dwarf" to a "Yellow Sun-Star", and soon to begin its third phase - expansion into a "Red Giant", prior to its final disappearance into a "Black Hole". This process, we are told, requires some fifteen billion years. I might mention here, this progression - white, yellow, red, black - was the archetypal four-fold pattern of transformation held by ancient alchemists centuries ago. For the alchemist, these colors represent the four phases that metals undergo in the transformation from exposure to heat or fire. These color changes were seen as the release of the universal Pneuma, permeating all things.[3]

It is further postulated that the increased temperature and size of the solar Red Giant's expansion over the next 1.3 billion years will cause the evaporation of the entire water resources on Earth, both fresh and salt which will terminate all known life in our system. It is estimated that this expanded Red Giant phase will, during the next 7.5 billion years, cause the Sun to increase 256 times its present size, and to radiate a temperature on Earth of 2,500 degrees. These numbers: $256 = 64 \times 4$ or $4^3 \times 2^2$ or 4^4, the

estimated temperature of 2,500 degrees = 5^2 x 10^2. All these numbers of size and duration appear as structural aspects of the *Yuga* system. I will be speculating as to whether or not this overlap between ancient knowledge and modern science is simply fortuitous.

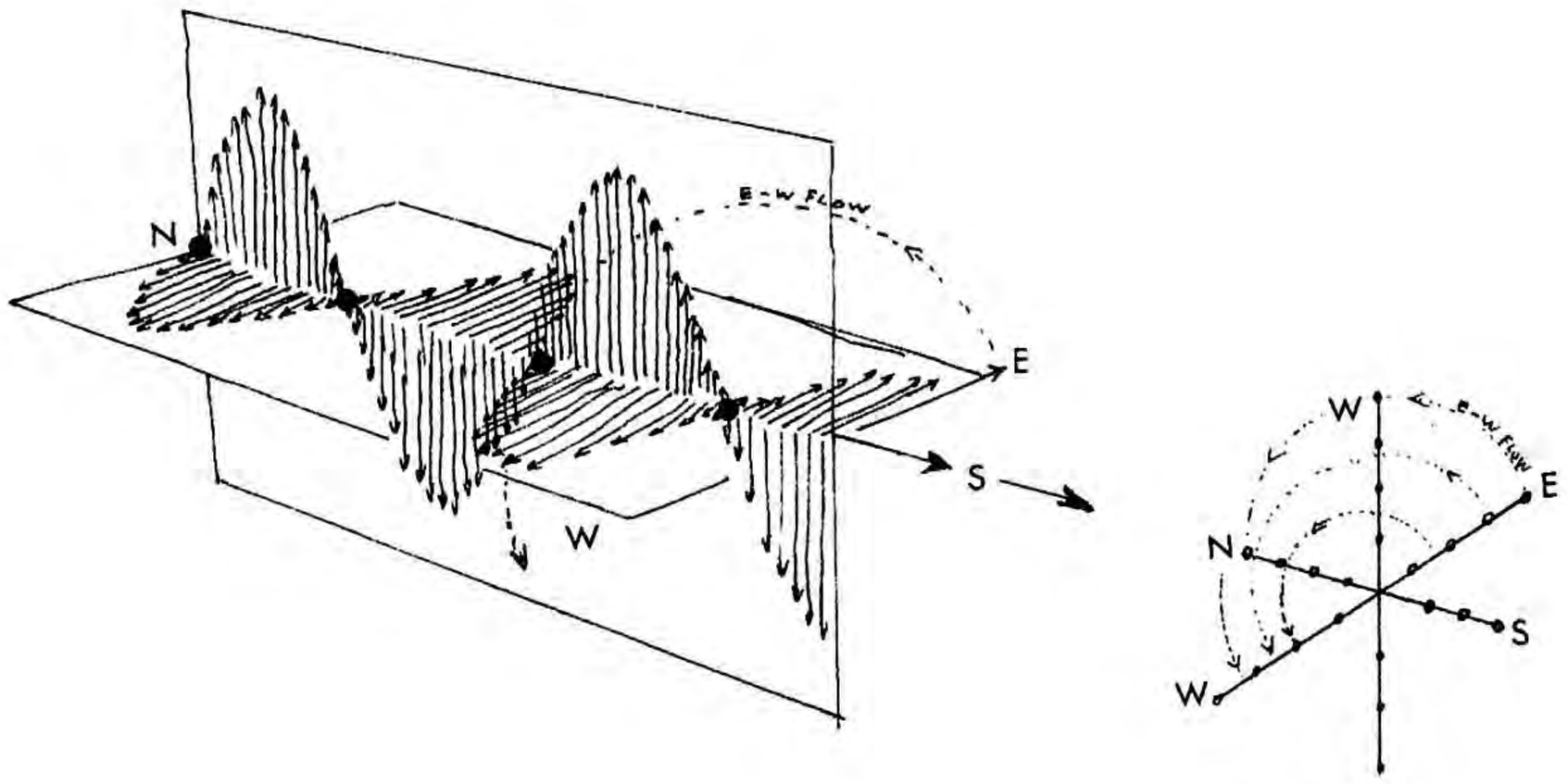
The BBC documentary further postulated that within the next twelve billion years, the then dry, brown, flat, barren Earth would be drawn into the huge gaseous body of the Sun and completely atomized. These physicists suggested that we confront this prospect of the complete disappearance of life by supporting technological projects that might enable us to discover and relocate our civilization to another appropriately acclimatized planet somewhere in our Galaxy. This possibility reads like a modern, cosmic version of Noah's Ark. This modern prophecy varies from the *Yuga* system foremost in its projection of vast durations of billions of years. In comparison, the *Yuga* warns of an apocalyptic event that is well underway and with a termination episode within centuries. The second variation between these two prophesies is that the modern view of destruction results from purely physical forces: electro-magnetic, thermal and gravitational. The *Yuga* system, in contrast, is governed in most part by the psychophysical phases and effects that the collective consciousness of mankind exerts on the natural and cosmic aspects of existence. This premise of the *Yuga* extends from the idea that the planetary system with the Earth, Sun and Moon must have been originally conceived for the genesis of an embodied conscious being, capable of admiring and identifying with the majesty, mystery, magnitude and meaning of the created universe.

It is inconsequential to speculate on whether there are multiple and varied universes. Such questions are only further testimony to the hopelessly quantitative propensities of modern scientific thought. The important thing is that we are an expression of universal laws that have fostered levels of extreme physical and conscious complexity. Human consciousness is self-conscious of being conscious. This unique form of consciousness was called "Manas" in ancient Sanskrit and was considered capable of being self-cultivated and purified in such a way as to effect the organization and transmutation of the entire world.[4]

This contrast between the ancient prophetic view and that of contemporary science does not imply that the causative forces and fields, the approaching de-structuring of quantum and particle levels as predicted in modern explanations, are excluded from the *Yuga/Kalpa* system. All these force fields and formations in the ancient view are expressions of the same

"All-creating Consciousness". All aspects of this creation, be they biological, material, mechanistic or cosmological, oscillate between the great dynamic paradoxes of *complimentary/oppositional.* It is upon this dynamic that our being and our non-being are balanced. Just as electro-magnetic fields flow at 90-degree oppositional pathways, we must recognize and accept that the cross of life is raised upon the unbreakable bondage of pinnacle and precipice.

The ubiquitous presence in energy and form of this crossing duality implies there is no existence without resistance, no ecstasy without friction, no rationalism without romanticism, no normality without psychosis, no glamour without the grotesque, no secularization without the sacred, no elitism without the vulgar, no controlling without contamination, no courage without fear and danger, no becoming without being. With most of these complimentary oppositions, the inverse statement would be equally true, except for becoming and being. In this case, being, can and must exist prior to and after its stages and potentials of becoming. It is then non-



The form of an antenna capable of receiving a broadcasted field of electromagnetism is yet another example of the 3:7 ratio. There are three crossing lines aligned with a progressing field, the vertical wave is magnetic and the horizontal wave is electric. The three crossing components of the antenna terminate at six points with the intersection point being the seventh. Figurematically the antenna represents the "cubic law" of depth, height and width, which characterizes everything in the physical creation. Symbolically these three lines and seven points were called "the Cube of space" and in Islamic and Kabalist teaching were held as an icon of cosmic order.

Figure 1.15 – Antenna for the transmission of electro-magnetic energy fields

being that is the perfect potential and fulfillment of all possible becoming. "To be or not to be, that is the question", but it is also the answer. This all-prevailing dual paradox that the civilizing process tends to ignore or resist, mythically, originates from the creating and destroying mother "Kali", perpetuator and cause of the *Yuga* prophesy. Ma-Kali announces, "I am Kali, Mother of All, and I have created all these worlds, and I have a tendency to destroy them."[5]

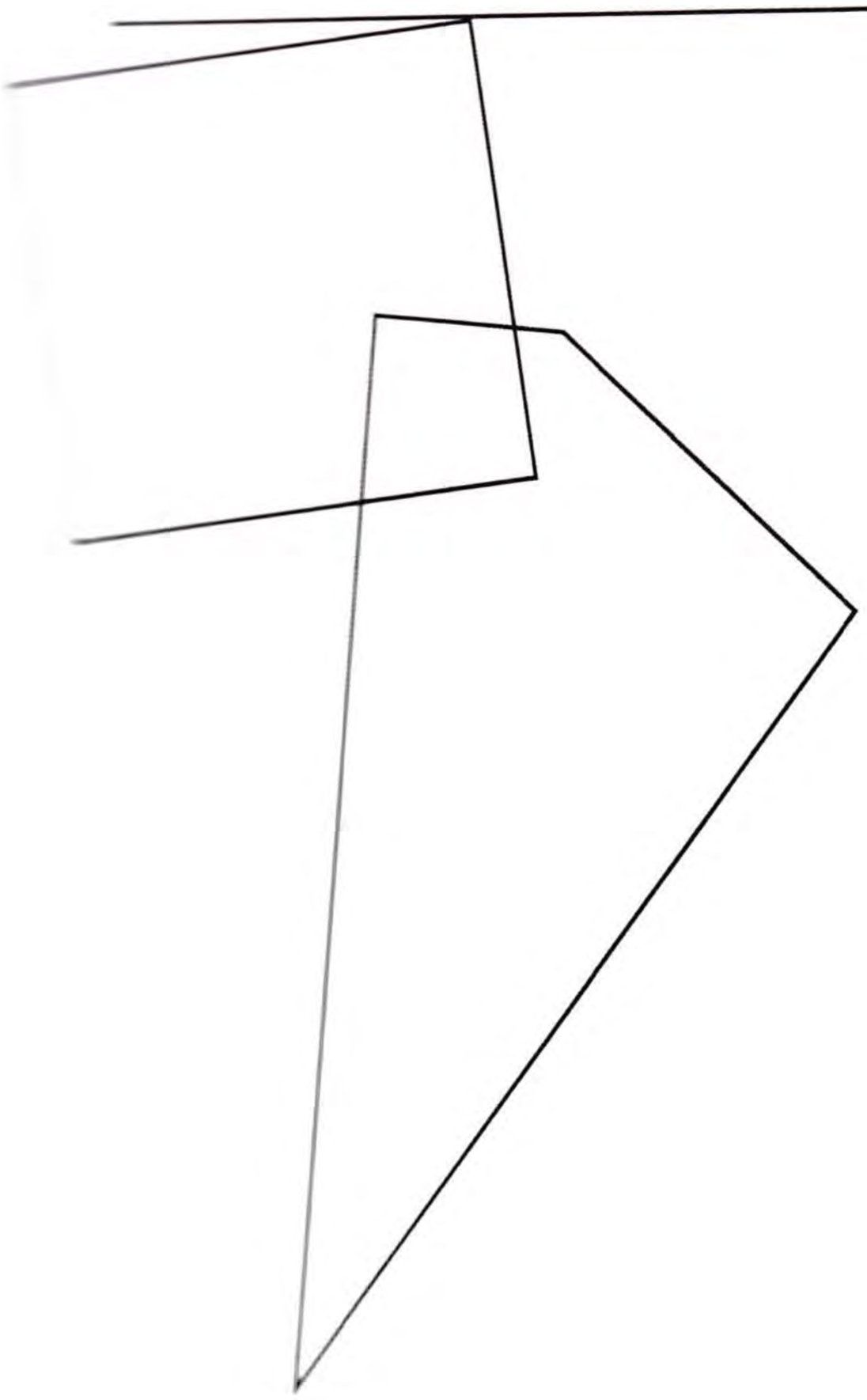
The *Yuga* tradition is perhaps one of the earliest sources in which the great universal paradox of complementarity and opposition is associated with the birth-giving drive and desire for self-reproduction, continuity and immortality contrasted against the inevitability of death and dissolution.

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1. R. A. Schwaller De Lubicz, Le Roi De La Theocratic Pharaonique, Flammarion, Paris, 1961, p. 93.
2. Wills, Christopher, The Wisdom of the Genes, Oxford University Press, Oxford, 1989, p. 37.
3. Lamsa, Jack. The Origins of Alchemy in Greco-Roman Egypt, New York, Barnes Noble, 1970.
4. Tomus: T. de Nicolais, Avatara, Nicolas Hays Ltd, New York, 1976, p. 288.
5. Danielou, Alain, The Gods of India, Vermont, Healing Art Press, 1985.

2

Concept, Form and Time



They help us face the dumb foundering abyss,
between us and the object, external cause,
the little ignorance that is everything,
the possible nest in the invisible tree,
which in a composite season, now unknown,
denied dismissed, may hold a serpent,
loud in our captious hymns, erect and sinuous,
whose venom and whose wisdom will be one.

Saint John and the Back Ache, Wallace Stevens

Throughout this work we will be utilizing a technique of thought which generates every concept in a bonded relationship to a form. Our contemporary word, "information", alludes to this process, however, we are rarely alerted to its origins or its meaning. When I say a "concept" bonded to a "form", I do not mean to an image, but rather to the pure symmetry of geometric form. The ancient Greeks called this notion of a concept bonded to a form as the "Edie" (plural "Edios"). As we can detect, this word is the origin of our word "idea". Idea is the feminine form of "Edie" and is also associated with the word "goddess" in Latin. Plato borrowed the philosophy of the Edie from Pythagoras who brought it from Egypt. Plato maintained that "The art of rhetoric", that is, the use of the spoken and written word, should always be founded upon geometry and number.[1]

One can consider "Edios" as an androgynous procedure with the "concept" being male and the associated "form" being female. Throughout the text, the reader will find many images along with a selection of geometric forms to illustrate our thesis. "Eidetic" philosophy also places concepts and forms in parallel with a symbolic use of number.[2] I will attempt throughout to maintain relationships between the ideas and geometric forms in this way avoiding the patriarchal propensity of transmitting isolated concepts that are formally and symbolically unsupported.

This process of associating concepts to symmetry, form, and number began in ancient Egypt and India where it was called "Yantra". In this chapter I will briefly present some basic differences, relationships, and general definitions concerning gender and qualities found in the traditional four philosophical elements; earth, water, fire and air. I will then invite the reader to contemplate how these characteristics might find expression in geometric forms consistent with their literal or physical qualities. We do not frequently make this transfer from the literal to the purely formal, so

please. if you will, gauge the effectiveness of this ancient Yantra method upon your processes of comprehension, memory and metaphor. These geometries occur in the inter-relationships of cycles of time and carry with them similar meaning and effects as they do in the realm of space.

THOUGHT-FORMS

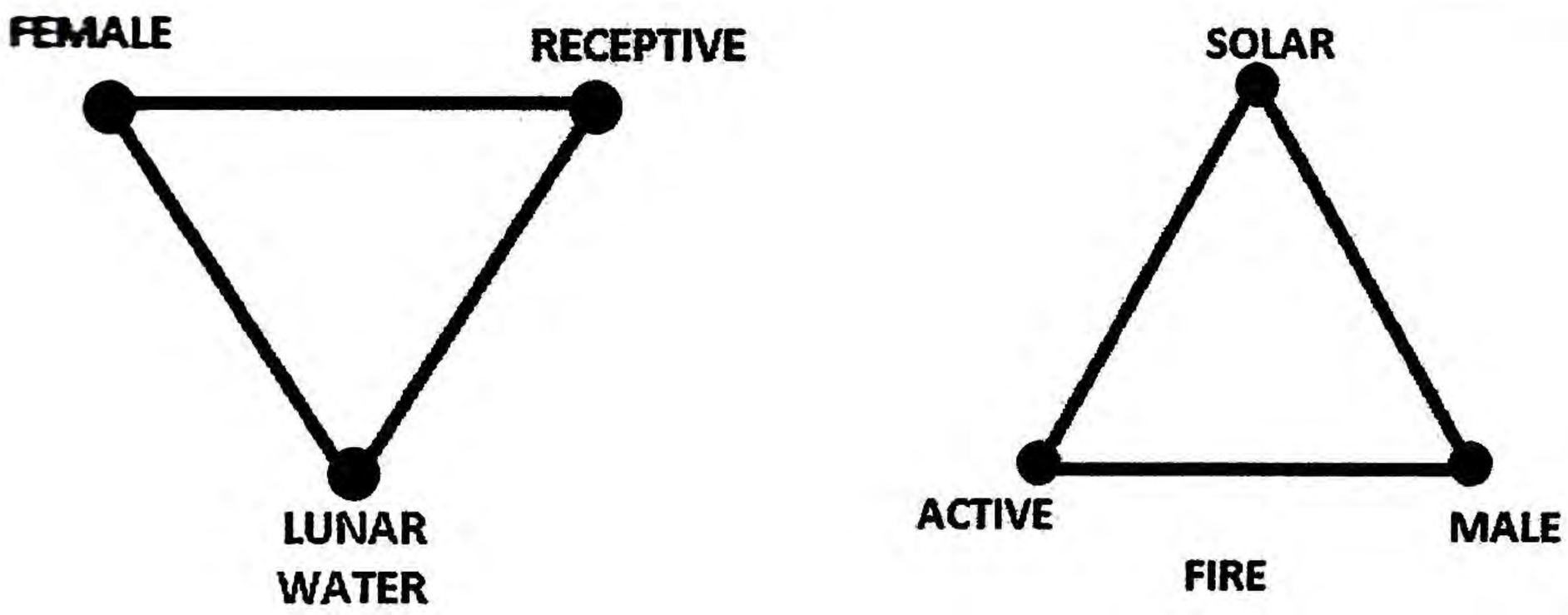
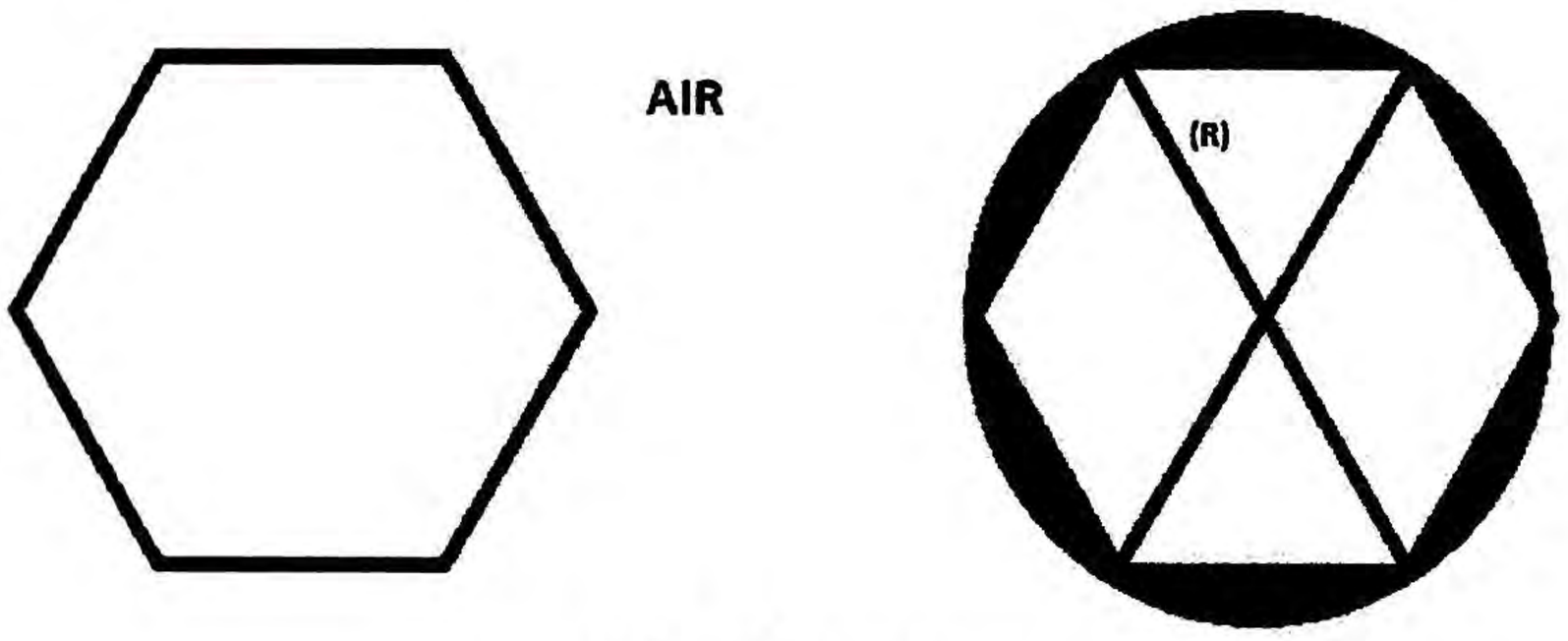


Figure 2.1a and 2.1b – The Triangle as Gender and Primal Elements

The inverted triangle, for example, represented the female (Figure 2.1a). It also represented water, and the tendency to seek an equal or balanced level. This tendency in the human psyche evokes sedentary motivations as well as sexual receptivity and sensitivity to the influences of the Moon.

The upright triangle (Figure 2.1b) represented the masculine and is associated with fire, aggressiveness and the active moving force in sexual engagement. It also represents both the luminosity and destructiveness of the Sun.[3]



$$(R) = \frac{\text{side of hexagon}}{\text{radius of circle}}$$

$$2\pi R = \text{circumference of circle}$$

Figure 2.2a – Hexagon and Hexagon inscribed in a circle

The hexagon and the circle (Figure 2.2a) are analogous to the element Air. This is because the side of the hexagon is equal to the radius of the circle which encloses it. Both are then associated with the gaseous circulatory state of Air.[4] (Hexagon = air / Circle = ether).

EARTH

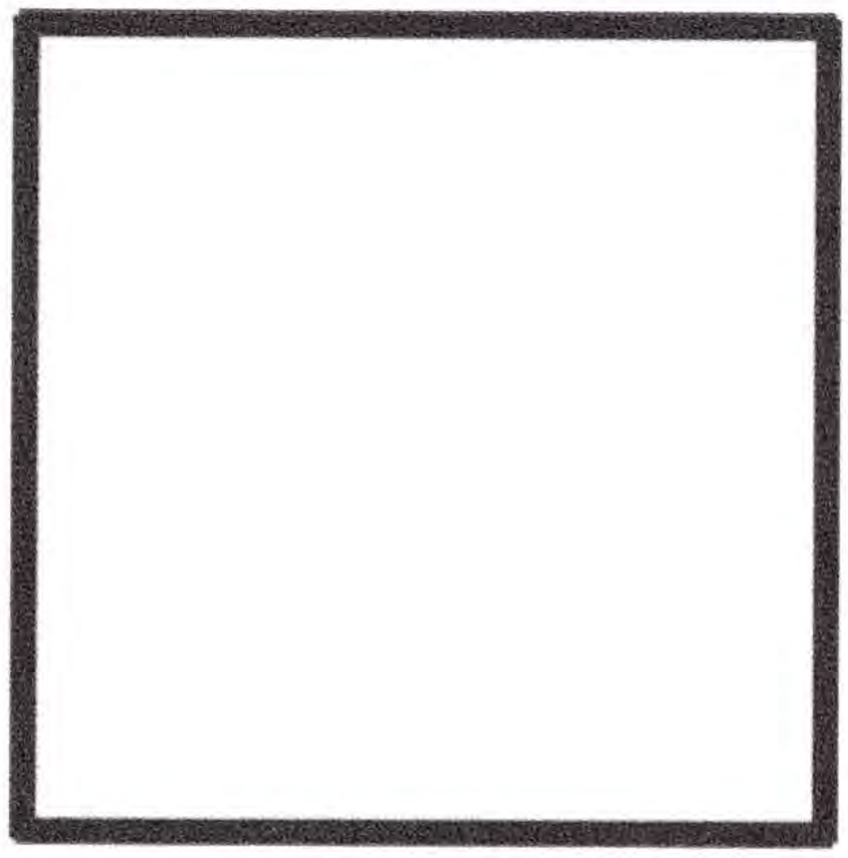


Figure 2.2b - Earth square; Symbol of Manifest Creation

The square represented Earth. Thus, these four primary elements found in all traditional philosophies: Air, Earth, Fire, Water are represented geometrically by circle, hexagon, triangle and square.

The form of the square is particularly laden with the conceptual dualities (Air/Fire, Earth/Water) and self-reproductive drives that provide the "spin" to the great wheel of Mother-Time, as well as to the instincts of individual organisms. In addition to the easily recognizable fact that all sides, edges, angles, and dimensions are diametrically opposed and equally complementary, the square holds a unique integration of perhaps the most fundamental of *universal polarities*, that of the concept of an "Absolute Unity" or *Oneness* with an infinite, incalculable "Multiplicity" or *Two-ness*. Simply stated, the side of a square, when given the value of one, will always have a diagonal equal to $\sqrt{2}$. As the following diagrams present, this relationship and self-reproductive power that it engenders (*one and the square root of two* = $1{:}\sqrt{2}$) inherently expands to infinity, producing as it grows, all the whole numbers.[5]

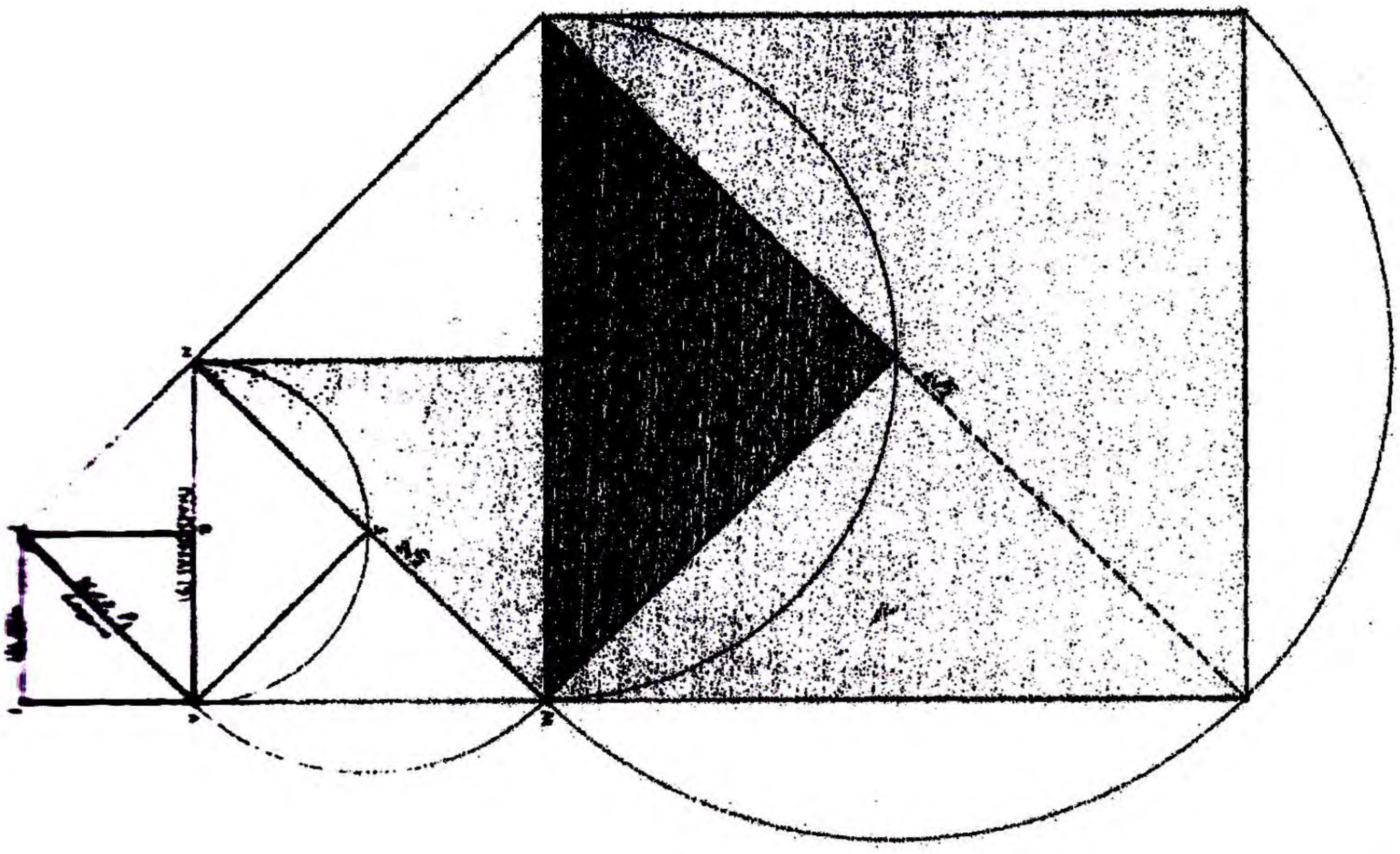


Figure 2.3 – The Square and the reproductive root

The square spawned its unitary fractions as well as all the possible intonations of musical sounds and those vibrations beyond the audible. The square also produced all the octaves and harmonics of ascending and descending scales.

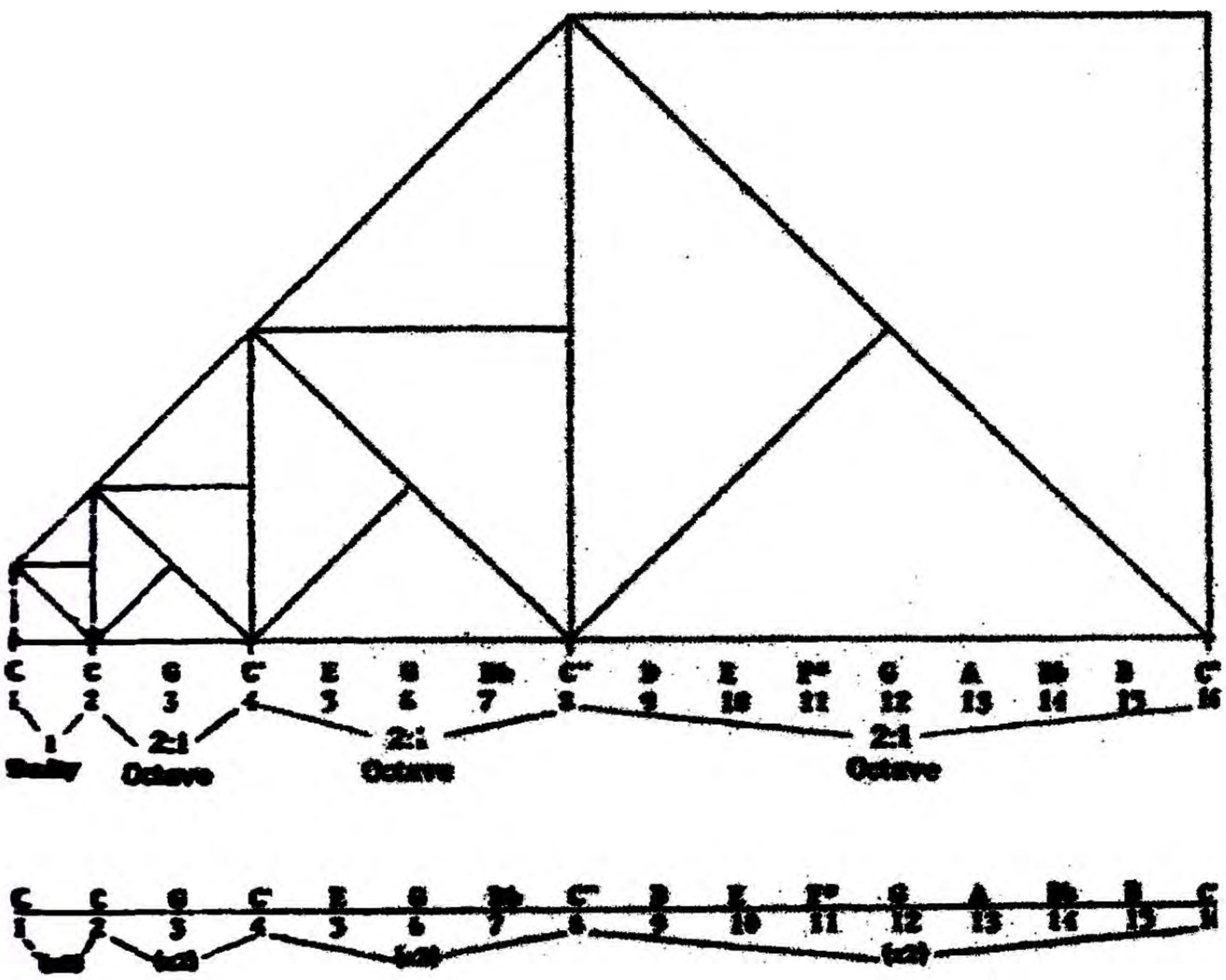


Figure 2.4 – The Square Root and the Musical Scales

The diagram below also reveals the fact that every number has formative aspects. For example, the number seven contains the potential for both a two dimensional hexagon and a three-dimensional cube (as seven points). Figure 2.5 is constructed from six dots around a seventh dot in the center. This forms a two dimensional hexagon and "optically" a three dimensional cube. The cube is the philosophical symbol of the physical world and is appearing here out of the non-physical two dimensional realm of the mind (the hexagon).

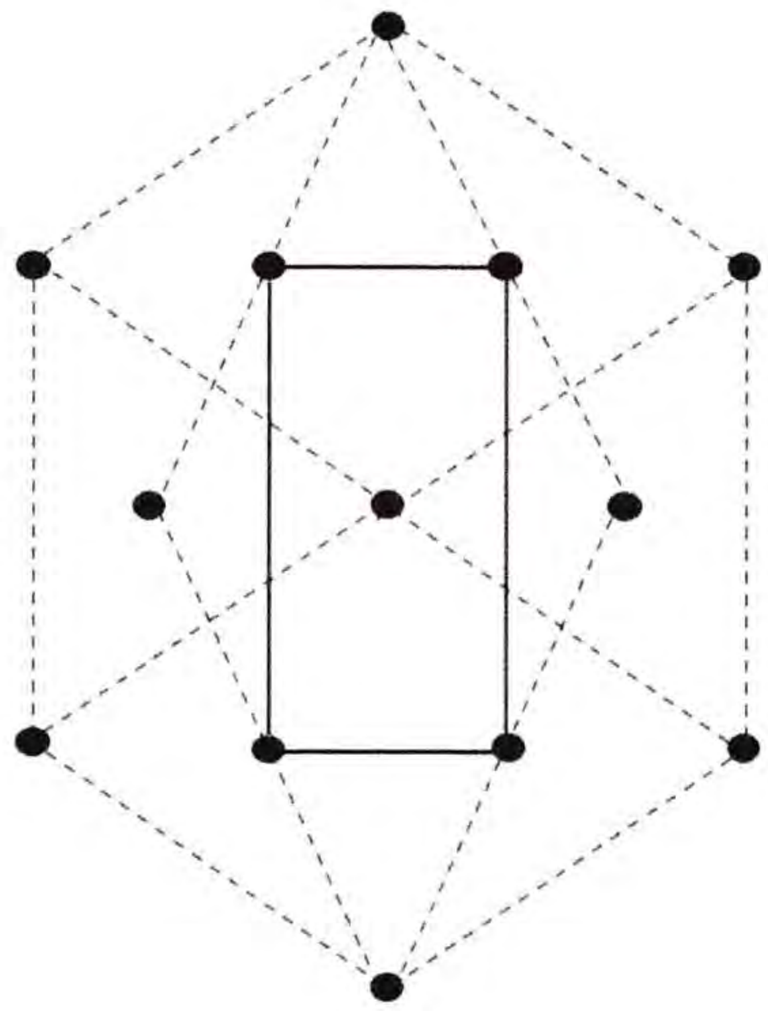


Figure 2.5 - The hexagon and the cube from two inversed, overlapping tetrahedrons

If you repeat six more dots mid-way inside the cube, around the same center or the seventh dot, both a second, smaller cube and a prismatic shape appear (Fig 2.6).

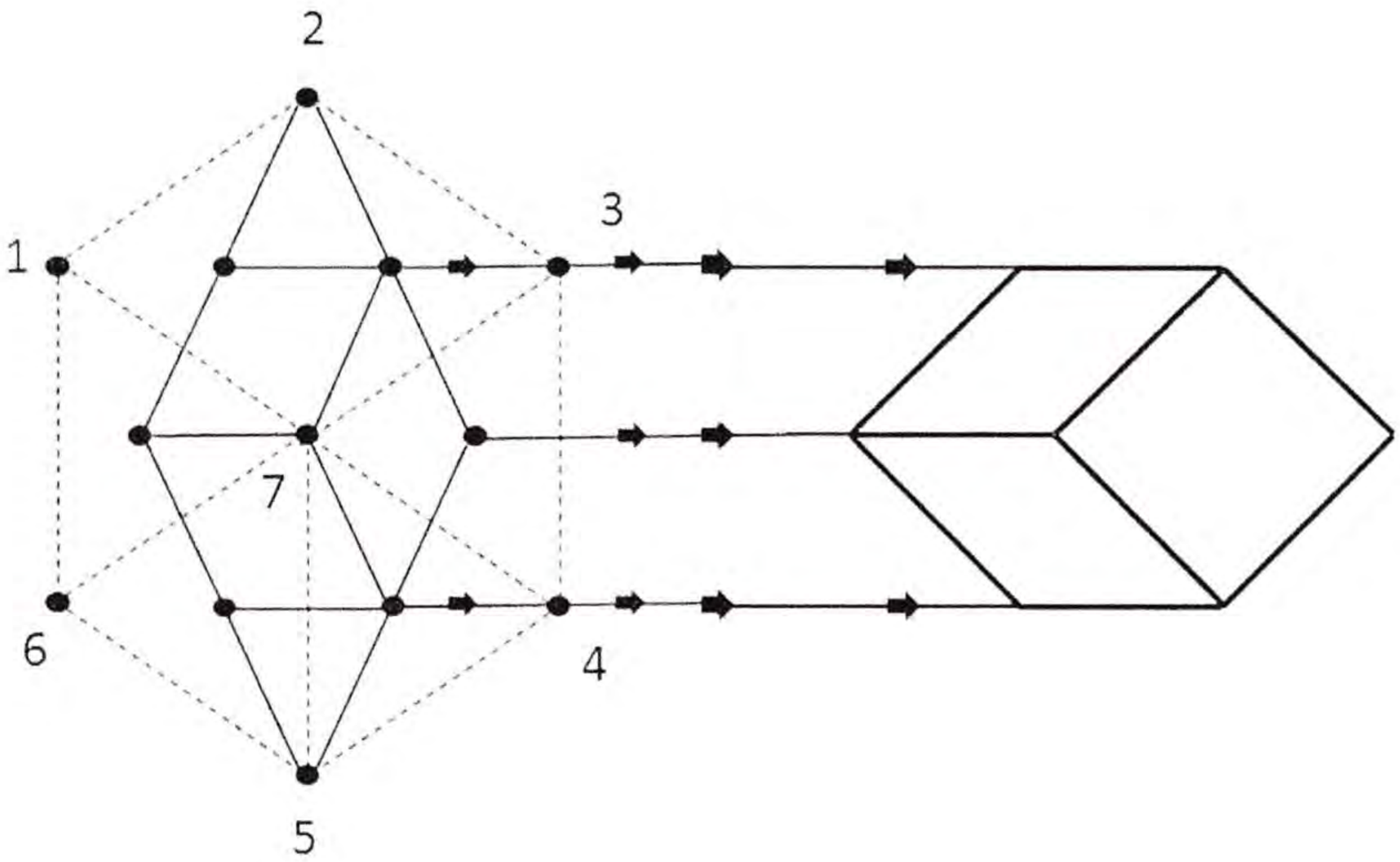


Figure 2.6 – The Cube Within the Cube from 13 Points

The prism, if formed in transparent quartz, can refract invisible light into the seven colors of the spectrum. The total is now thirteen dots (6 + 7) in the diagram along with three optical formations arising from the numbers six and seven. These two numbers, interactive here in the two and three dimensions of space, are also critical in the time cycles of the Yuga system, in terms of the embodiment and disembodiment of creation. Both the cubes and prism are tilted so that *optically* the back, lower corner of their solid forms are aligned with their front, upper apex (the center dot), thus the eighth corner spatially functions like the eighth note of a seven note scale. It is identical in vibrational quality to the first or fundamental note and it serves the dual role of being the beginning note of a new octave and the end of the preceding octave.

This number thirteen and the emergence of form and light as shown here were part of initiatic teaching in freemasonry. One can find a version of this diagram on all the one dollar bill notes of U.S. currency. You might also want to locate the imprint of thirteen circles, on the opposite side of the dollar bill.

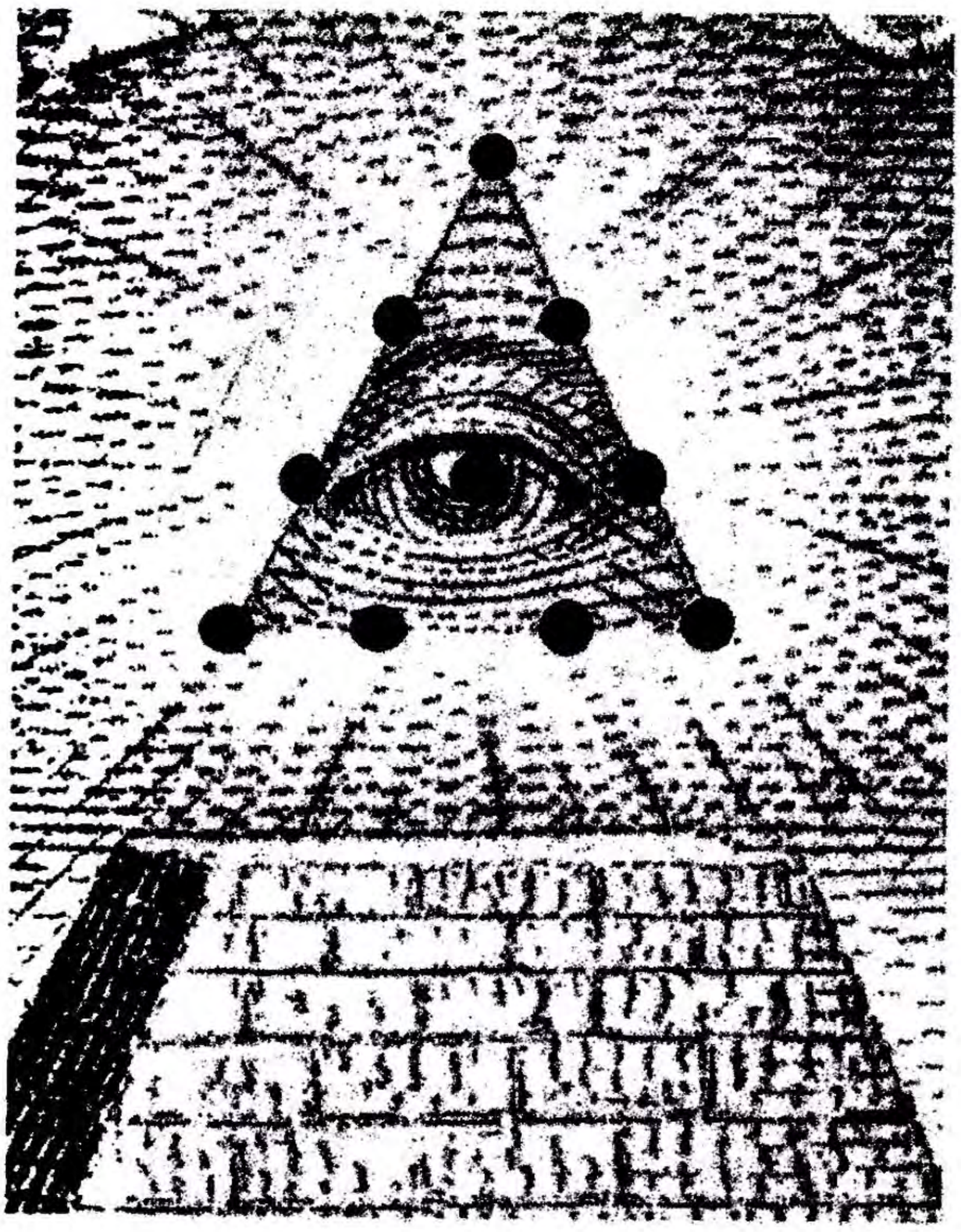


Figure 2.7 – All Seeing Eye, the Pyramid and the Great Seal

The image of the eye peering through the apex of the pyramid can be interpreted to have a temporal connotation; the first four levels of ten units represent the cyclic reoccurrence of the four Great Ages of ten Yugas and allow for a vision of the structural and energetic qualities and nature of universal time (past, present and future).

STRUCTURAL ELEMENTS OF NUMBER

- The number seven, for example, has a fraction = 1/7 as a partial of the initial unity.
- A root =$\sqrt{7}$ = 2.64575 the un-manifest sources or spirit of the number
- An inversion = $\frac{7}{1}$ the apparent magnitude of the number in units
- A square = 7^2 = 49 = the mental metaphysical aspect of the number preceding the three dimensions of the physical world. The triangle; $\Delta 7 = 28$
- A cube = 7^3 = 343 = the physical embodiment of the number.

Frame 2.1

This approach to number as a conceptual and formative activity I will explore particularly in their influences on our experience of time.

There are several other Yantras that are linked to the movements and nature of cosmic time.

The star hexagon symbolizes the male and female triangular forces in coitus.[6] The female, the descending of spirit into matter, united with the male, as the ascending of matter into spirit. Both processes are essential to the realization of our species, and are fraught with contradictory, complementary and oppositional conditions. This is especially so when an unnatural imbalance, on any level, persists in this ecstatic union.

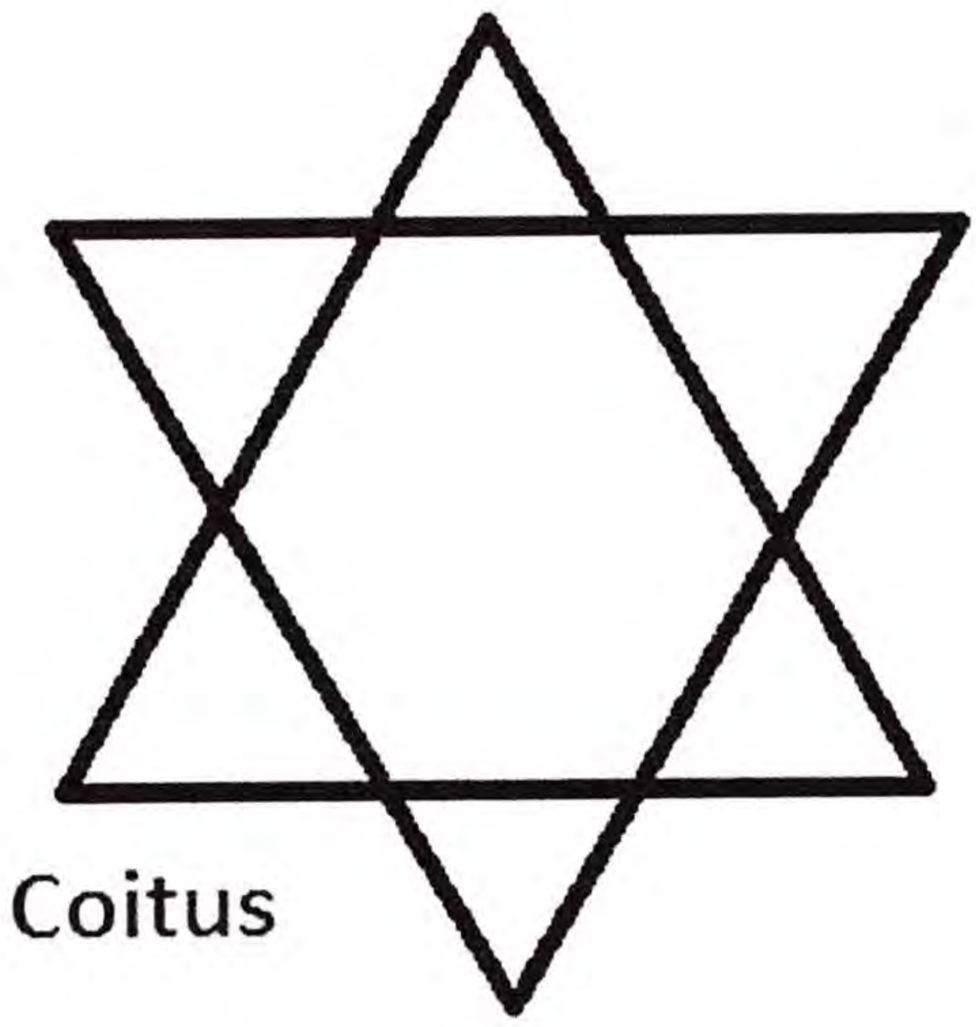


Figure 2.8 - Star, hexagon as coitus

The diagram below, in Hindu Yantra philosophy, with a small triangle pointing downwards inside a larger triangle pointing upward, equals the "androgyne". That configuration, when repeated three times, one inverted inside the other, is called the Yantra, "that removes all desire". In other words. the achievement of the complete androgynous state on all three levels. Body, Mind and Spirit, signals, in ascetic traditions, the realization and perfection of human embodiment.

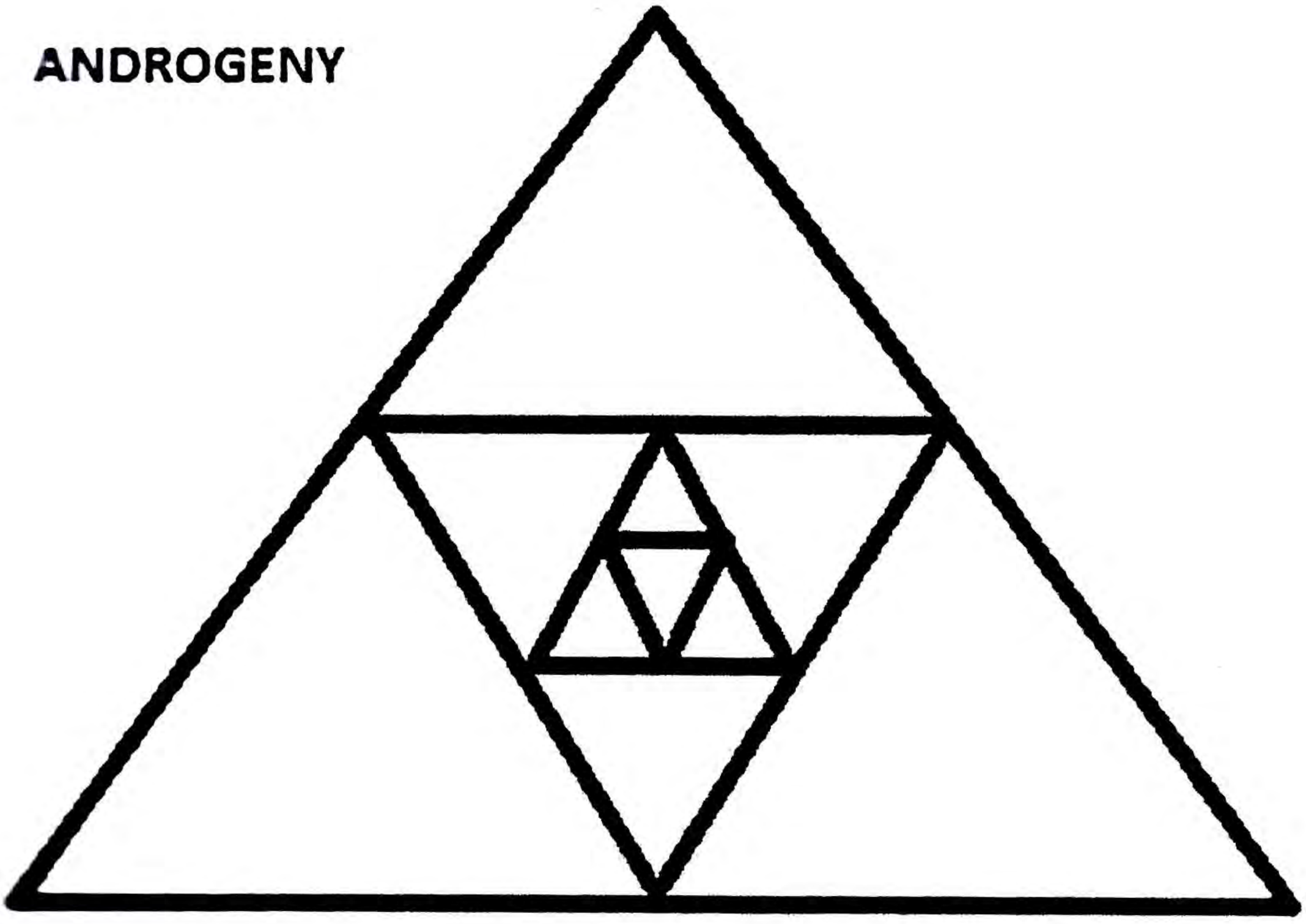


Figure 2.9 – Androgynous Geometry

The two triangles with one balancing on the point of the other (Fig 2.10), as if withdrawn from the hexagonal interlocked position, or coitus, intimates that the world has ceased its self-reproductive force and is about to be destroyed. In other words, this is the basic Yantra for the concluding phase of the Yuga system where the cycles of Time cease to exist as creative movement and union. This is a stage when productive endeavors, be they biological or industrial, ultimately contribute to the catalytic vortex of collective self-annihilation; the inevitability that the excesses of civilization, with its insatiable drive to exploit and commodify, will consume the natural world.

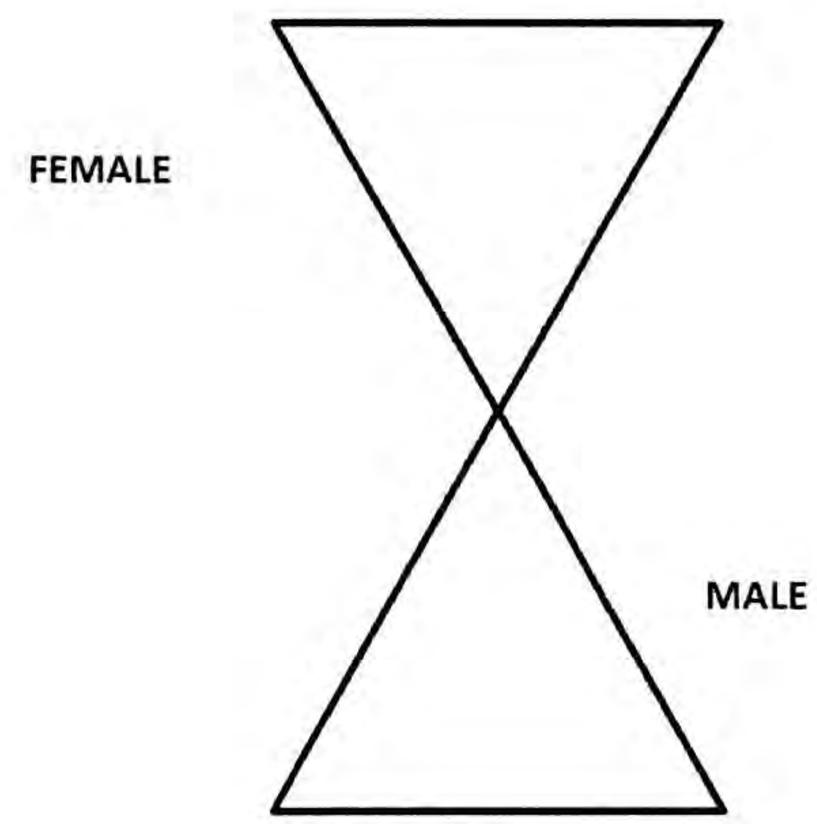


Figure 2.10 – Precarious Triangles

Perhaps the most damaging of all form-concepts was the convergence of the upright male triangle into the idea of male-hierarchy. This contrivance of hierarchical power and governance by an elite over the masses is dependent upon urbanization into cities, nations and empires. The regions of the world where our early civilizations arose are now predominately deserts or semi-desert. Extensive archaeology in regions such as the Levant, Mesopotamia, Central Asia, the Iranian plateau, the Nile Valley across North Africa and the Arabian Peninsula all reveal previous terrains with abundant streams, rivers, irrigation farming, large forests and temperate climate. Excavations also reveal this area became what is now a graveyard of abandoned cities where once stood fortresses, temples and pyramids, as well as evidence of large scale warfare, weaponry, ritual human sacrifice and hierarchical power.

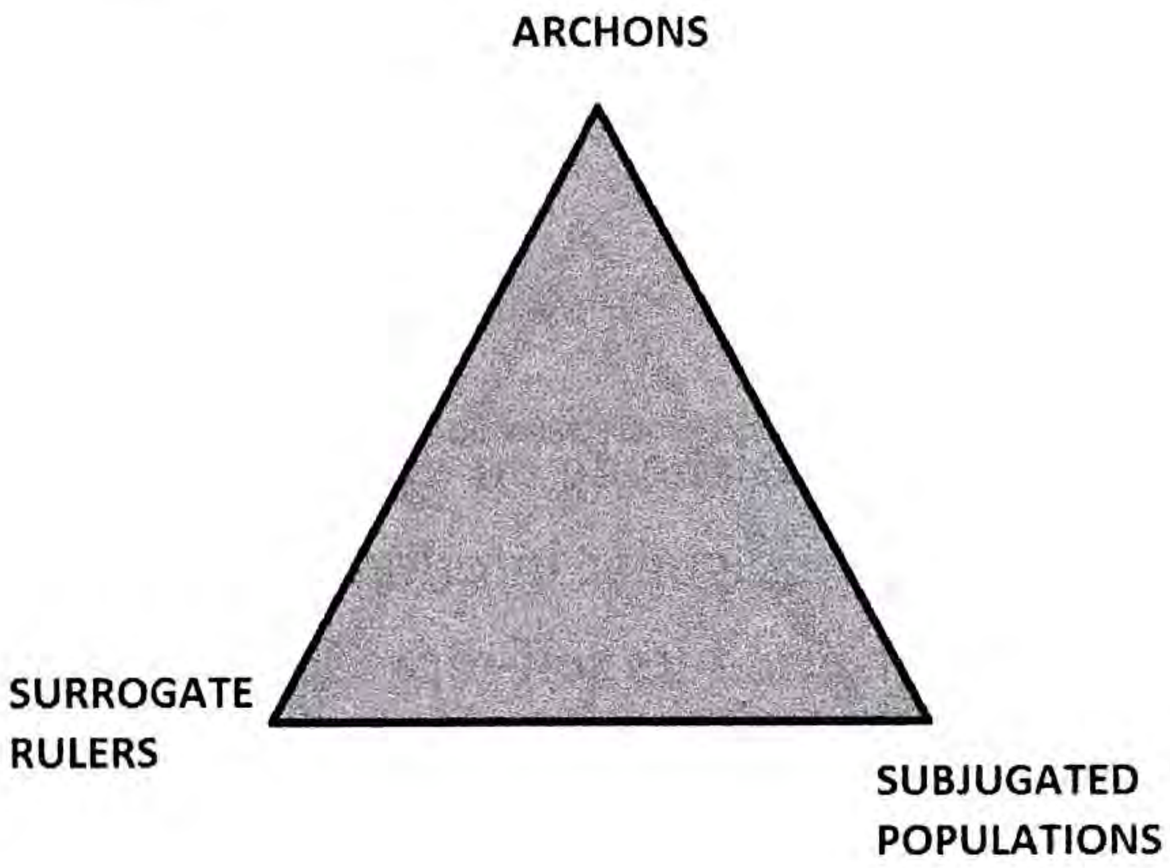


Figure 2.11 – The Triangle as Hierarchy and Power

The concept of hierarchical rule, according to ancient texts from the Sumerians, Greeks, Egyptians and Gnostics, was brought to Earth by inter-planetary invaders; hierarchy is antithetical to most indigenous societies. These invaders, called the Archons by the Greeks and Gnostics, genetically modified factions of humans as lineages of surrogate rulers who preside over militarized and enslaved masses.

THE CITY AND THE END OF TIME

It can hardly be accidental that the widespread concentration into dense urban centers with an associated environmental exploitation was the predecessor and accompaniment to the onset of climate change and severe episodes of desertification. This concurrent process of increased urbanization and aridity began in the mid-fourth millennia BC which also marks the precise advent of the Kali Yuga. Most environmentalists today agree that modern cities are environmentally unsustainable. The statistic commonly discussed claims that presently fifty percent of the world's population live in cities and utilize eighty percent of raw materials as well as creating eighty percent of pollution. Within the next thirty to forty years, the percentage of city dwellers is predicted to jump to seventy-five percent and it is not unlikely that the consumption and pollution figures will mount accordingly. Some commentators believe cities to be the greatest of all human creative innovations and accomplishments. In the light of my research into the nature of cyclic time and the significance of indigenous cultures. I will be taking the opposing view. It is urbanization by the male hierarchy that is the provocateur of the "religions" of mass control, slavery, scientific and technological dictatorship, war, plagues and environmental degradation. I will further develop how this non-human concept, civilization was imposed by an ultra-terrestrial faction, as outlined in Sumerian text deciphered and interpreted by the Middle East linguist, Zecharia Sitchin. It is these influences and factors more than any other, which necessitate the complete destruction and renewal of our planetary system by the Mother who gave it birth – Ma-Kali.

BIRTHING DREAMING AND NUMBER

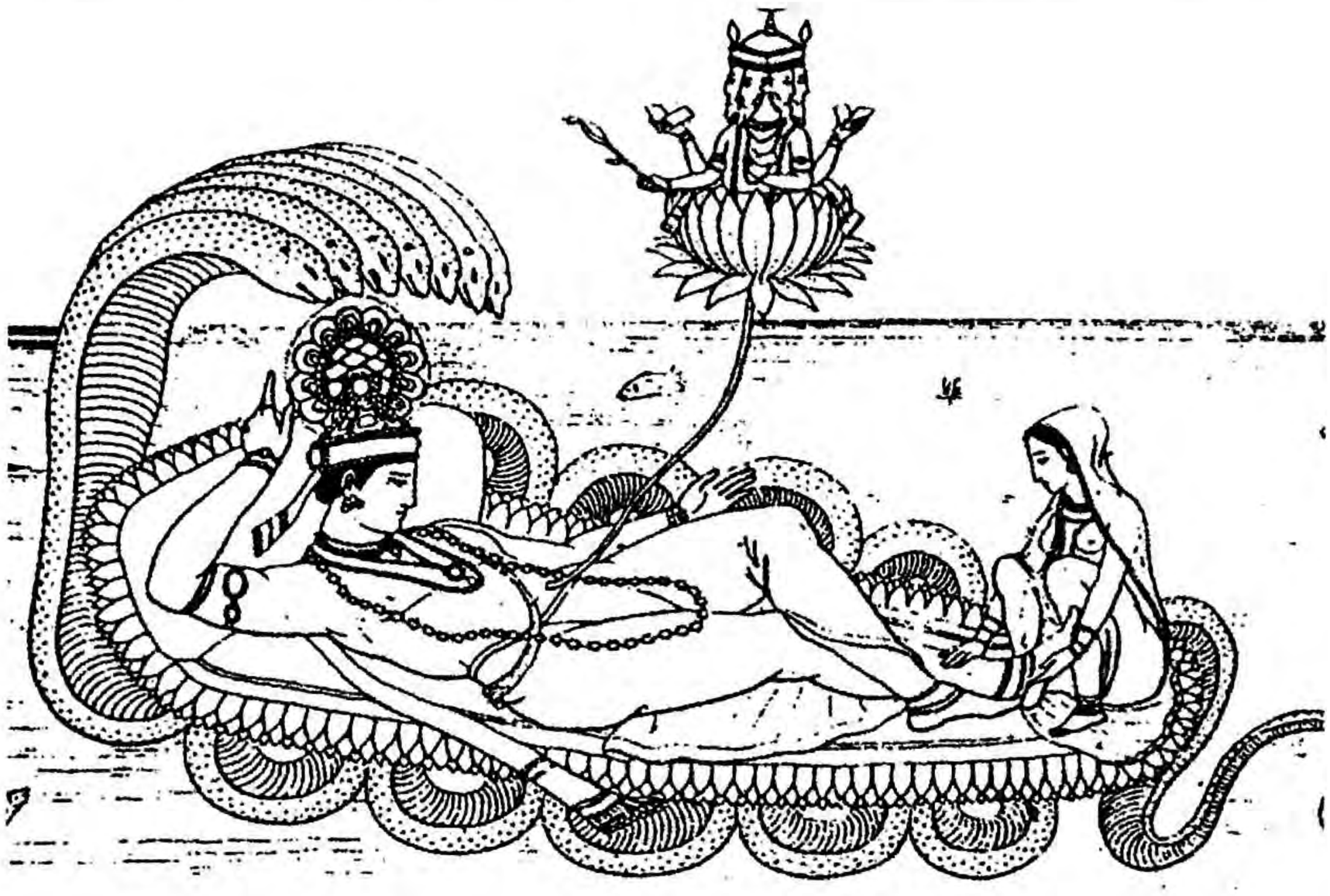


Figure 2.12 – The Seven Head Serpent Vessel in the Cosmic Sea.

As Vishnu sleeps, a dream lotus grows from his navel and hovers above his body. This flower in turn gives birth to Brahma, the Lord of Light and creator of the universe. He sits on the blossoming lotus, his four faces illuminating the four corners of the universe. The fertility goddess Lakshrni, Vishnu's beautiful consort, stimulates him tactilely as he dreams and maintains the creation, nourishing it through his umbilical stem. At the end of one hundred Brahma years, a period equivalent to about 311 trillion human years, Vishnu withdraws his dream of Brahma, and the lotus retracts back into his body. "Like a spider that has climbed up the thread that once issued from its own organism, drawing it back into itself, the god has consumed again the web of the universe." When Vishnu enters this period of dreamless sleep, all of his dream lotuses simultaneously become reabsorbed. With the dissolution of maya, the cosmic dreamer remains absorbed in a dreamless sleep for a period of one hundred Brahma years. Eventually though, something within him stirs, and Vishnu once again unfurls his lotus dream.[7]

This process of "birthing" creation arose subsequent to the rise of patriarchal rule, relegated to Vishnu the Hindu deity responsible for maintaining continuity, order and progression. The activity of this male-birthing is portrayed above with Vishnu sleeping and dreaming while mounted upon the coils of Sessha, the seven-headed serpent of time. The creation appears initially as a lotus flower whose blossoming perfectly integrates the four elements of Earth, Water, Air and Fire or Light. With no undue explanation, the lotus emerges from an extension into the heavens of Vishnu's umbilical cord, an organ and tissue bequeathed to him by his female mother. Lakshmi, the Goddess of beauty and love, humbly massages Vishnu's foot to stimulate the natal dreaming. This image of Vishnu birthing the world creation consistently appears in Hindu temples. A huge bronze version (16 meters long) was found buried along the east wall of the incredible Hindu temple of Angkor Watt in Cambodia.

The numerology in hundreds of trillions of years is possibly a guise to project the equivalent duration relative to human Consciousness and life span. In this work we will examine that time cycle effecting humans and civilization as described in the active dream creation with its intermittent withdrawal and cessation. This process will engage four numerical progressions.

- No. 1. The arithmetic progression from 1 to 8 with its inverse from 8 to 1.

Mid-number = 4 End-number = 7

1	1	2	3	4	5	6	7	8
	7	6	5	4	3	2	1	

The progression provides the ratio and proportion of vibration as intonation and harmonic.

- No. 2. The arithmetic progression from 1 to 10 with its inverse from 10 to 1.

Mid-number = 5 End-number = 9

This progression provides the proportion of Space and Form.

- No. 3. The arithmetic progression from 1 to 12.

Mid-number = 6 End-number = 11

This progression provides the number of Movement and Time.

- No. 4. The arithmetic progression from 1 to 14

Mid-number = 7 End-number = 13

This progression provides the proportion of structural and energetic equilibrium with emphasis on the lunar influence on female fertility and natal development in humankind.

Frame 2.2

With these simple progressions we can delve into the cosmic patterns and durations of the alternating dynamics of creation and destruction as poetically intimated in the story of Vishnu. We shall also discover how the mid-point number connects Vishnu with his historical messenger, the Buddha who is the Avatar of the Kali Yuga with its great, important ending

of time in which humanity is presently engaged. I wish to emphasize that Vishnu is not a God. He is a personification of one of the 3 essential powers and principles of Universal Consciousness upon which the ever-dynamic process of creation is founded.

1. The initial, animated, invigorated conceptualization (Brahma)
2. The continuity of maintaining a proceeding integration of consistency and change (Vishnu).
3. The necessity of death, destruction, dispersal and return to the initial Consciousness, prior to a transformation in harmony with achieving the purpose and goal of the creation process (Shiva).

With these ideas stated let us outline the alternative concepts of beginnings and endings provided by the material, non-metaphysical, purposeless cosmology of "modern" science.

SILENCING THE "BIG BANG"

The world is presence and not force; presence is not mind,
presence is consciousness

Wallace Stevens

The process of evaluating the cosmology of an ancient culture such as the Yuga system, can be enhanced by citing just a few of the scientifically verified flaws in the major premises of our contemporary world view. The two components that I've nominated as indispensable to our modern perspective are:

1. Darwinian Evolutionary theory, including a concept of human origins and destiny.
2. The "Big Bang" - "Black Hole" astronomy with its concept of the origins and destiny of the universe

Let me begin by noting that presently, Darwinism is a theory in tatters, with some of the world's most outstanding biologists in open dissent. The more obedient, conditioned biologists cling onto this theory because there is no other that can both displace and cover-up scientific ignorance surrounding the causation, wonderment and beauty of our living creation. There is also no other theory that can effectively propagate the same goals, values and human collective identity that spurred the instigation of Darwinism during the early surge of the Industrial Revolution in the mid-19th century. The "Big Bang" cosmology, because it hinges upon Metaphysics,

argues on a much less detailed turf. Many have felt that this alienating doctrine could be "ferreted out" by simply asking the question, "Well, what existed before the Big Bang?" What exploded containing all the organizational laws, governing atoms to quantum, from particles to waves, matter to radiation, relativity to regularity and from nebula to neutrons? Until recently, the answer to that question was "a naked singularity is what exploded!" This term is moderately consistent with the ancient concepts of an absolute ineffable "Infinite All" or "Unity", as was found in Gnostic traditions throughout the ages. In his recent book, *The Grand Design*, reviewed extensively in the Wall Street Journal (2010), physicist Stephen Hawking has altered the terminology claiming that the creation of the Universe arose "spontaneously" from "absolutely nothing." Hawking thus breaks with his own traditions that began with Kant, later to be joined by Einstein. both of whom argued that the concept of a cause for the creation of the universe is beyond reason and scientific resolution.[8] Neither Kant nor Einstein, "thought that physics explained everything." In contrast, Hawking argues that science now holds all the answers to the question of origins by means of the laws of physics. Those laws include:

1. The logic of the theory of quantum mechanics combined with …
2. General relativity and…
3. The super-string theory.

These three "laws", it seems, makes the emergence of not only the Universe. but Multi-verses unavoidable and inevitable. Hawking adds, "With these laws. there is no room for a creator since there is no need of him".[9] In this manner. Hawking is resurrecting the "Virgin Mother" fable: the physical world does it all alone – a physical with no meta-physical. Hawking, in his reductionism, wipes away the existence of thought, which is more than just brainwave activity, but a complex, subtle, configuring of an immaterial force field of consciousness. In human experience, thought, in all its many conscious and subliminal forms, represents the metaphysical predecessor to every act. form or formula, insight, instinct and intuition. With Hawking, we've gone back in time to the Napoleonic era when French and German rationalists were extolling the same theme: the un-necessity of an immaterial stage in the emergence of a physical reality, i.e. "God is dead".

There is another factor in Hawking's "Grand Design": the constant tendency of the Universe to "expand", or as he now refers to it, "inflate". As verification of this "inflation" tendency, Hawking points to the space detected in every "unobservable twist" of the tightly spiraling "cosmic superstrings". He reports, "In string theory, space inevitably has extra curled up dimensions that we cannot see." The idea of inflation predicts that, "an

extremely tiny region of space can blow up into a universe sized domain."[10] Does this mean that the initial "nothingness" (or previously "singularity"), is incapable of contracting back into the ultra-super, all containing condition (if not of matter, then possibly of mind and thought), which previously exploded with a "Big Bang"? How did the original "Nothing" become ultra-all-containing in the first place? Or is that aspect of the "Big Bang" story now being bumped off the script? It is only the unquestioned authority of the "scientific profession" that prevents a not-so-vague sense of absurdity from creeping into a discussion like this. Another factor is that the media seems to capitalize on the dramatic aspects of Stephen Hawking's personal story: the young genius who was unfortunately crippled by disease, but now, like the blind harpist in Ancient Egypt, still holds a visionary intuition of Universal Law.



Figure 2.13 – The Blind harpist

In ancient Egypt the audial sense – that is, the direct response to the proportional laws of sound and form – was considered as the epistemological basis for philosophy and science. This is evoked by the blind harpist whose proverbial wisdom comes not from the visual world of appearance but from an inner vision of metaphysical law.

The blind harpist, we should note, has his fingers in place so as to sound the tuned strings in the harmonic chords, which recapitulate the ratios of the forms, positions and movements of planets, stars and galaxies. In comparison, Hawking has only theories and formulas about imaginary super-strings, invisible and "un-positional" quantum, all of which are suspended in general relativity and inexplicable forces of expansion or inflation. Meanwhile, more scientific research is casting grave doubts on the validity of the entire "Big Bang" paradigm.

An international team of astronomers reported that at least one quarter of the diameter of one universe is striated with thirteen great rivers of galaxies approximately 3,260,000 light years in length and separated by equally vacant bands of 600 million light years wide.[11] The formation of this layered egg-like shell would require 150 billion years to form, based on the speed of movement generated by the cosmic expansion of the "Big Bang" theory. Given that the universe begins with this "Big Bang" only 15 billion years ago, and that the distribution of matter throughout should reflect the uniformity of the forces emitted by the singularity of the initial event, these findings are baffling and very upsetting to the believers of contemporary scientific dogma. My conjecture is that these recent observations of a universe structured like a huge wave field with troughs of matter separated by intervals of rarification, supports the ancient Gnostic cosmology. The Gnostics or Sabians, all maintained that the most fundamental ground of the world is "thought". In other words, we inhabit a cosmos that is, in essence and origins, one small configuration in a universal mind of intelligence.[12]

Matter is an interpretive and engagingly powerful capacity of our own intellection, and a necessary aspect for the play of creation to unfold its manifest activities in separate configurations or embodiments. Most of the problems we have with the idea of a metaphysical realm lies in the so called "problem of God". The problem of God, as some Western Philosophers such as Hegel have disclosed, lies in "the naming of God". This problem, as I shall discuss later, may lead back to the ultra-planetary hierarchy that descended from the sky, called the Archons. For perhaps these millennia, "monster gods", in subjugating deluded populations, created a deep and lasting collective lesion in our spiritual awareness. It is this trauma which may be partly accountable for the self-destructive obsessiveness of our ecological, economic and military systems. This story of the Archons will unfold as we progress.

Let me at this point say, that "God" implies a gender (god-goddess) and plurality (god-gods), that is to say "a being among other beings". For example in the Old Testament, the name "Elohim" was originally presented

in plural form equal to "Gods", thus reflecting the historical progression of the term from polytheism to monotheism. I will be replacing the name "God" with the all-permeating word "Consciousness", which was beautifully positioned in Hindu philosophy with the phrase "Consciousness does not exist. It is existence". This idea circumvents the dialectic traps of:

1. Transcendent versus immanent.
2. Non-being versus being.
3. Infinite versus finite etc.

We should perhaps remind ourselves to take care with the way we utilize these sensitive words. Certain words, it seems acquire powers through the vast cycles of time that enable or enhance either creation or destruction. Words such as "sacred", "permanence", "productivity", "power", "order" or such phrases as "the will of God" or "the common good" or "civilizing". Such is the inescapable duality of everything born in the womb of the cosmic mother / destroyer, Ma-Kali. I will pursue this idea as we proceed, and close this chapter with the triadic edie or form / concept as introduced earlier in this chapter. The Gnostic tradition considered the eidetic form most effective for conceptualizing the essential metaphysical predecessor of this manifest creation.

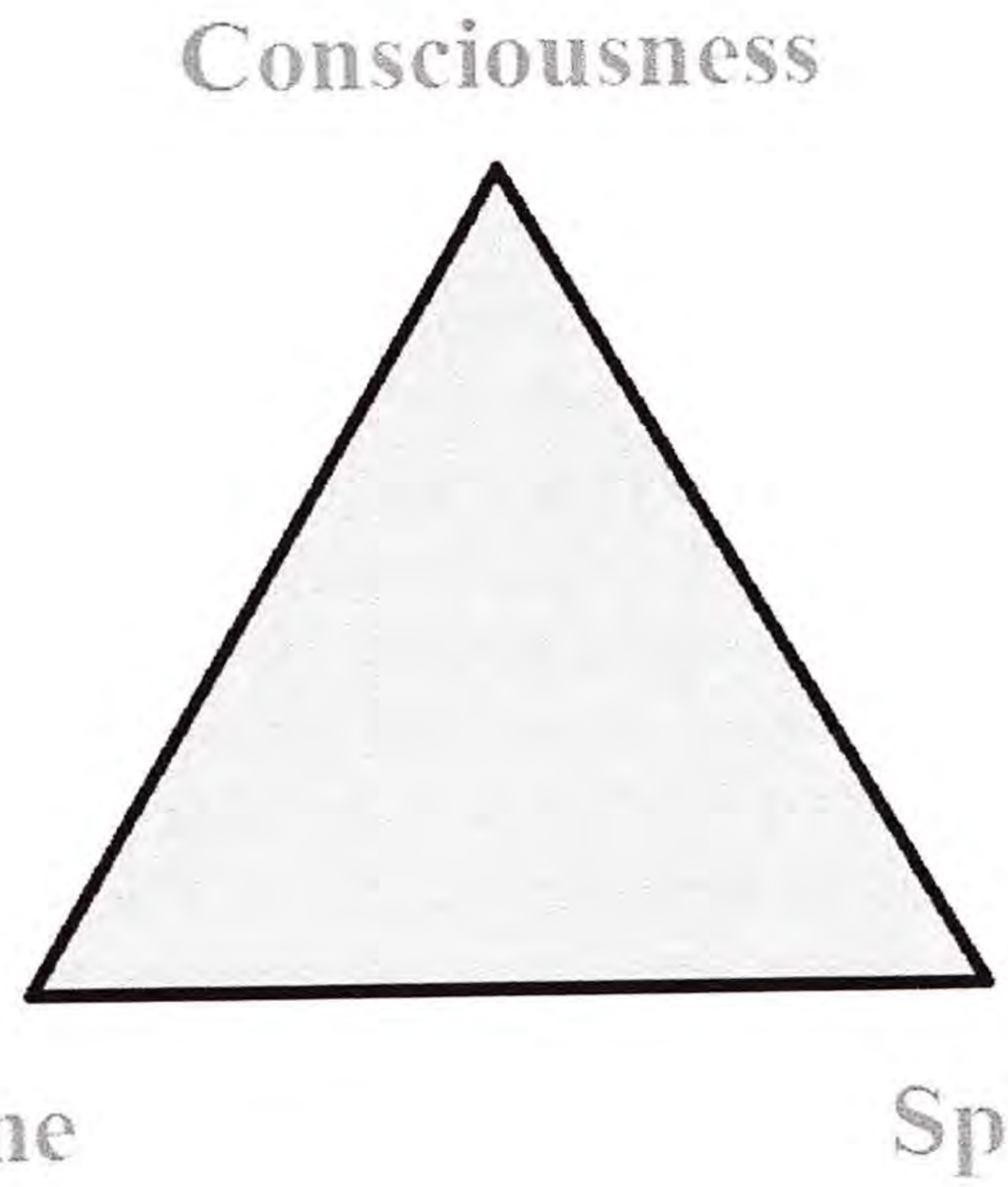


Figure 2.14 – The Primal Trinity of Creation

One may think of Time and Space as the windows and walls of a shadowy domicile dreamed by an infinite Consciousness in its eternal game of becoming imaginable to itself.

The Yuga prophesy staunchly proclaims that all the ideas, innovations, knowledge and concepts that are highly acclaimed and socially propagated throughout sciences, arts, education and politics during the closing phases of the Yuga cycle, will ultimately contribute to a descent into darkness, destruction and the inevitable demise of Homo sapiens. In this context I will reflect chapters which describe various questionable aspects regarding a few of the most fundamental paradigms of our conventional world view. I will suggest these flawed, misleading theories are "devices" of the forces inherent in temporal cycles for the purpose of hastening the end of time. We are daily observing this to be the function of the adaptation of material science as a world religion.

[illegible]: The Written and Unwritten Doctrine, Humanities Press, New York, 1974

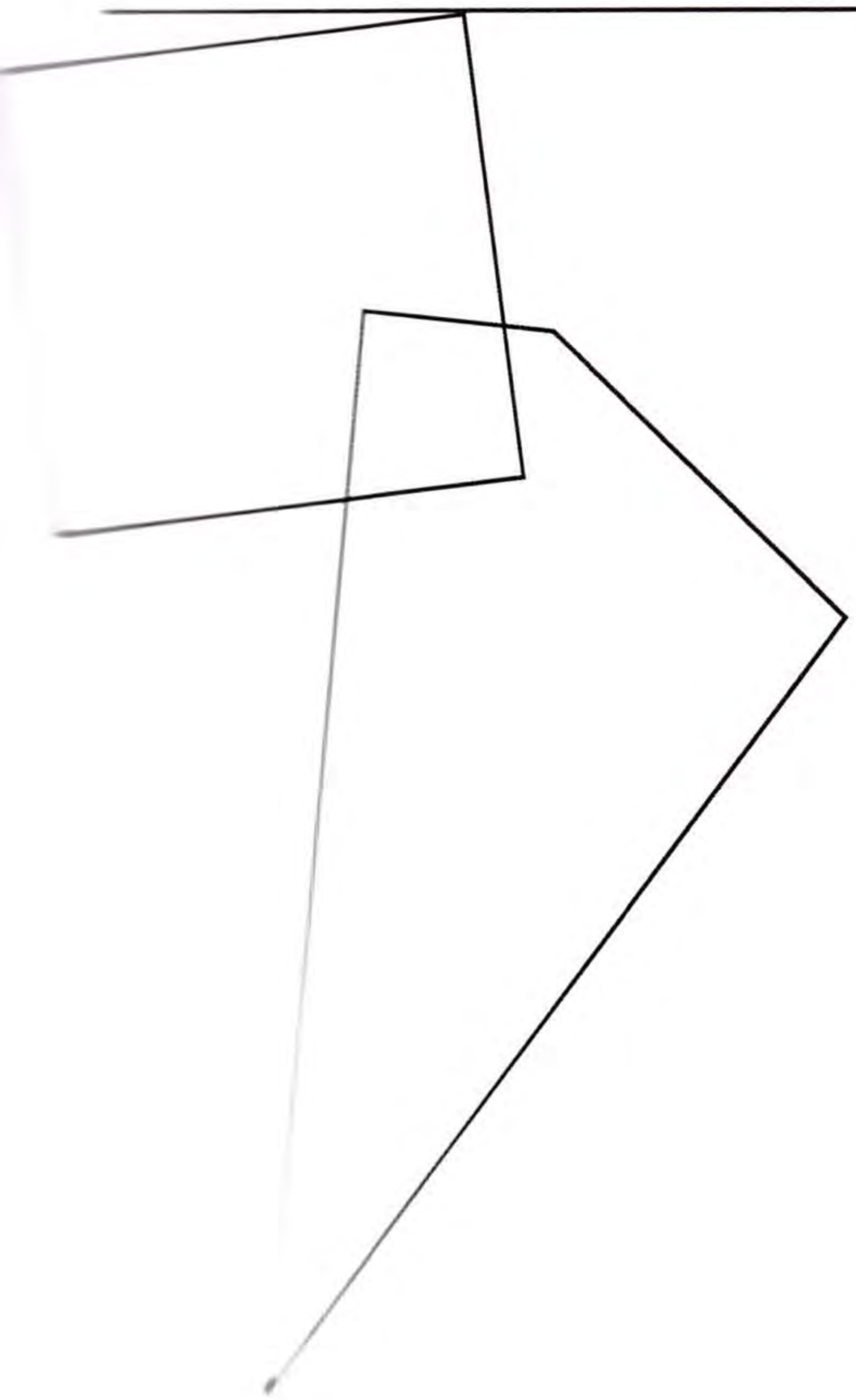
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3

Proportion and the Planets



XXIX

Silent friend of many distances, feel
how your breath enlarges all of space.
Let your presence ring out like a bell
into the night. What feeds upon your face

grows mighty from the nourishment thus offered.
Move through transformation, out and in.
What is the deepest loss that you have suffered?
If drinking is bitter, change yourself to wine.

In this immeasurable darkness, be the power
that rounds your senses in their magic ring,
the sense of their mysterious encounter.

And if the earthly no longer knows your name,
whisper to the silent earth: I'm flowing.
To the flashing water say: I am.

Extracts from Rainer Maria Rilke, perhaps addressing planetary influences in - The Sonnets to Orpheus

The basic structural component of the atom has often been considered as an analogue, relative to the arrangement of our planetary system. This theory can be stated as a four-term proportion such as A:B::C:D where A is in relation to B in a similar way as C is in relation to D.

A The nucleus, proton, neutron of the atom is in relation to (:)
B its seven electron shells in a similar ways as
C the Sun, Earth, Moon system is in relation to (:)
D the orbits of the seven visible planets.
This is basically a 3:7 mediating ratio.

Frame 3.1

In 1974 the German astronomer and musicologist Thomas Michael Schmidt, privately published an edition of his life's work named *The Wonderment of Music and the Cosmos*. In it he applied this same 3:7 ratio as discussed in Chapter One (Figure 1.12a). Schmidt's theory is not based

in the above theoretic atom / planetary arrangement, but rather on the way the planetary system actually appears to a viewer on Earth. Schmidt was tracking the synodic planetary orbits: the number of days between a moment when the planet occupies the same celestial degree as the Sun and it circles back to that degree. This Sun / planet conjunction occurs, sometimes above, sometimes below, or sometimes in front of the Sun as viewed from Earth.[1]

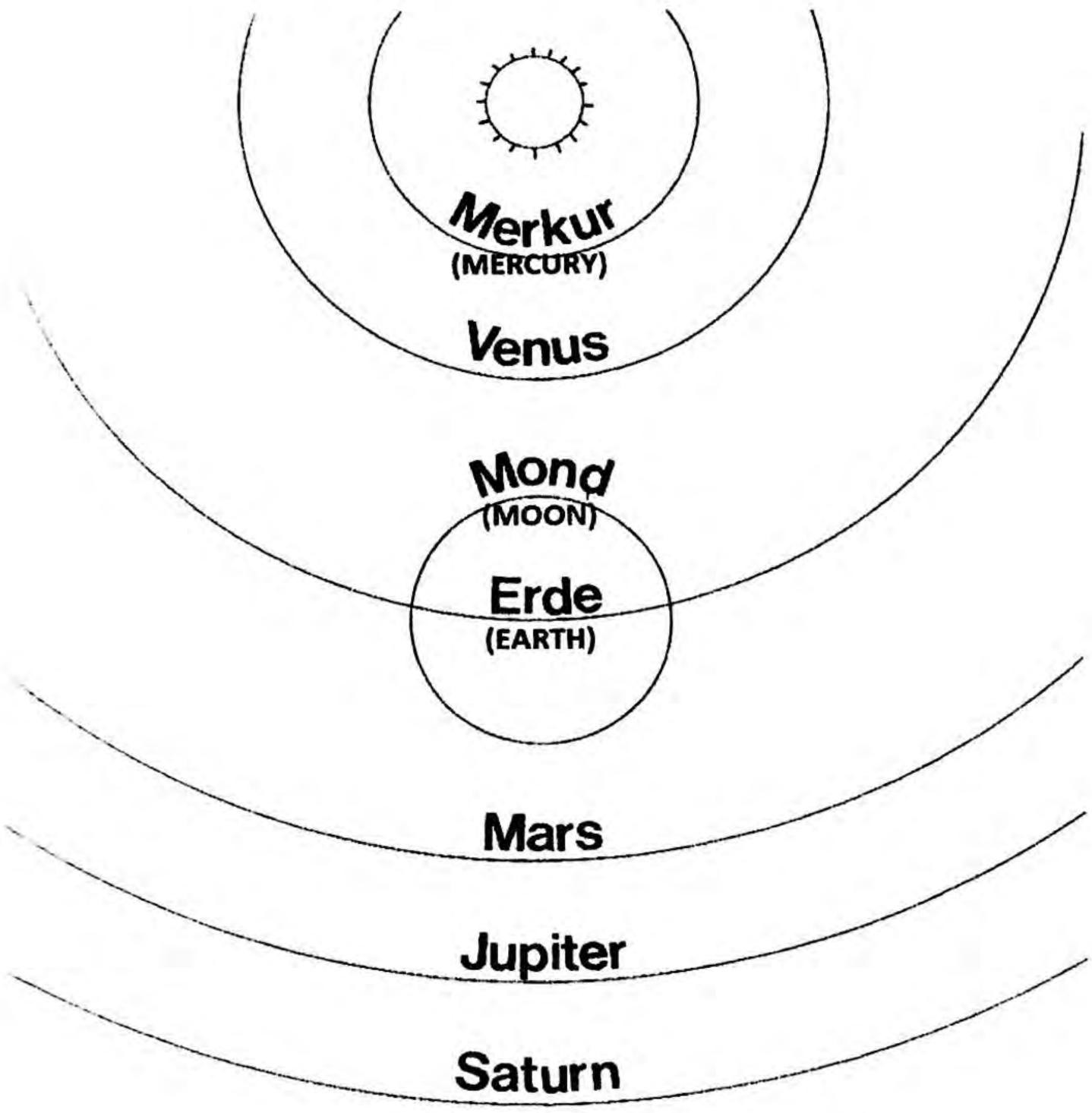


Figure 3.1 – Planets, Inner and outer.

Schmidt named the three celestial bodies situated between the Earth and the Sun (Mercury, Venus and the Moon) as the three "inner planets" while the planets Mars, Jupiter and Saturn he termed the "outer planets" that is. three inner, three outer and a central orb (or 3 + 3 + 1 = 7). The "outermost planets"; Uranus, Neptune and Pluto are not included in Schmidt's examination of a 3:7 planetary arrangement but do appear later in the conventional (1:9) structure (i.e. one Sun with nine planets). I will later deal with the more speculative version of the solar system (1:12), with one Sun and twelve planets. In this arrangement, the Moon and Earth are counted separately. To this is added "the dark planet" Nibiru which supposedly enters the solar system tangentially and infrequently. This 1:12 system also includes the asteroid belt that is thought to be the remains of a destroyed planet called "Tiamat".

The synodic orbit of the Earth plays two distinct roles or ratios. Firstly, it is considered the fixed center against which the other planetary orbits are calculated. The second role is the "Solar-Earth synodic orbit" of 365.25 days, which is utilized commonly in the exact orbital harmonics inherent in the overall "design" of our planetary environment. The Moon's synodic orbit can also have a double interpretation: the 29.53 day monthly cycle and the lunation year of 354.36 days.

1	(a) Moon lunation cycle	29.55 days
1	(b) Lunar Year	354.36 days
2	Mercury	115.88 days
3	Venus	583.92 days
4	Earth as center plus Earth / Solar Orbit	365.24 days
5	Mars	779.94 days
6	Jupiter	398.88 days
7	Saturn	378.04 days

Frame 3.2

The Arrangement of 3:7 in the Synodic Orbit Planetary System. The first harmonic involves the three inner-most planets: Moon, 29.5 days + Venus 583.9 days + Mercury 115.9 days = 729.3 days. This total is a small fraction less than 730 days of two solar-Earth cycles = 365 + 365 = 730. Also, a pentagon constructed with a side of 73 has a perimeter of 365 (see Figure 3.2)

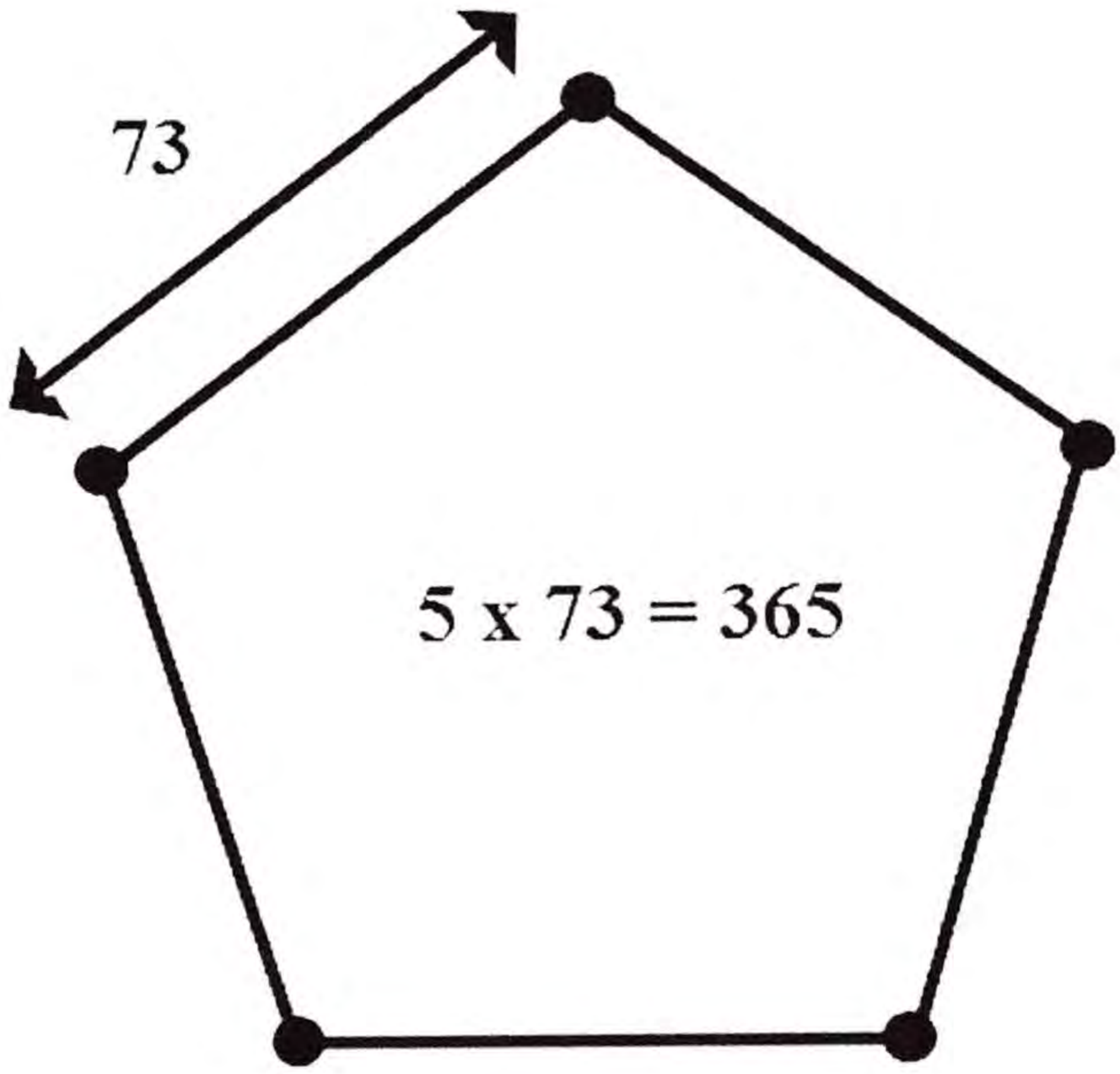


Figure 3.2 – Pentagon, the Year and 73

a proportion of synodic orbit:

Lunar + Venus + Mercury = 729

Lunar + Venus + Mercury: Solar - Earth Cycle : 2:1

Frame 3.3

Thus the three inner planets are in relation to the Solar / Earth cycles in the same ratio as an octave is to the fundamental tone; 2:1. (See Chapter 1 - Figure 1.3 & 1.4)

The orbits of the Moon + Venus + Mercury allow us to consider nearly exact geometries related to the number 729:

$729 = 27^2$ or 5.4 x 135 = 729 or 729 = 9 x 9 x 9 or 9^3 etc.

Frame 3.4

The key number is twenty-seven (3^3) and twenty-seven in days is the sidereal lunar orbit of 27.3. Multiples of twenty-seven generate a series which has profound significance in both the spacial and temporal measures of the Earth. Moon, Sun and cosmos as well as a vital role in the geodetic measure of the earth and human music and language (i.e. 27 x 2 = 54, 27 x 4 = 108, 27 x 8 = 216, 27 x 16 = 432, 27 x 32 = 864...). The number 729 is one of those rare numbers having the characteristic of being:

Equal to a square, cubed: 9 x 9 x 9 = 729

Equal to a cube, squared: 27 x 27 = 729

With: $3^2 = 9$ and $3^3 = 27$

Frame 3.5

We will find that our planetary system of spheres moving and rotating in circular spins and orbits generates a dense level of squaring and cubification ratios. It is as if the entire solar system is a lure designed to draw pre-configured fields of energy into the manifesting principles of shape (2D i.e. squaring) and volume (3D i.e. cubification).

Another form of the 3:7 ratio, which will be discussed later, is the fact that all products of the multiples of three times thirty-seven are triplets, i.e. 3 x 37 = 111, 6 x 37 = 222. Please note that there are thirty-seven lunations in three solar years: 37:36 months = 1.027777.

This is just the introduction to the number three and its multiple forms of cosmological relationships with those of the number seven. In ancient Egyptian mathematics, seven and three represented the archetype of oppositional / complementary forces such as Seth and Horus or Satan and Jehovah. The oppositional numbers in Egypt were determined by the inverse progression of the primary number series from one to ten.

1	1	2	3	4	5	6	7	8	9	10
	9	8	7	6	5	4	3	2	1	
	10	10	10	10	10	10	10	10	10	

Frame 3.6

Each number, when added to its inverse, equals the completion number ten. Each of the numbers, when paired with its inverse, has powerful harmonic interval potentials (i.e. 1:9 (Major tone), 2:8 = 1:4 (Major fourth), 4:6 = 2:3 (Major fifth)). However, the ratio 3:7 is not a common harmonic ratio, rather its role is cosmic or cyclic integration which will be observed as the Yuga system is explored. The various oppositional ratios of three and seven appear at critical moments in the enfolding of time and vibration.

Another important geometric law written in the planetary movement involves the three outer or above solar planets: Mars, Jupiter and Saturn.

The synodic orbit of Jupiter	398.9 days
Plus the orbit of Saturn	378.1 days
Are equal to the orbit of Mars	777.0 days

Frame 3.7

This total is only a little less than three days short of the exact orbit of Mars, which averages 779.9 days. This small difference, considering the vast distance, speeds, and scale of these bodies, is statistically negligible.

This Jupiter plus Saturn's figure of 777.0 days, closely echoes the square root of the total number of years in the Kali Yuga: 6,048 multiplied by ten:

$$\sqrt{6048} = 77.77 \text{ years x } 10 = 777.7 \text{ days}$$

Frame 3.8

Again this year: day ratio is a close approximation of Mars as the God of War and conflict. This echoes the ancient tradition in which the Kali Yuga has traditionally been called the "Age of Conflict". The Yuga system, as noted, is dominated by seven and its multiples, i.e. or $\frac{6048}{7} = 27 \text{ x } 32 \text{ or } 3^3 \text{ x } 2^5 = 864$.

These are only a small sample of the additive proportional interrelationships of the seven visible orbiting bodies, a list which enlarges greatly when one includes the three invisible influences of Uranus, Neptune and Pluto.

I will close this re-visioning of the planetary system with two more breath-taking examples researched by Thomas Michael Schmidt.

SATURN AS CHRONOS – LORD OF TIME



Figure 3.3 - Chronos – Saturn as Father Time

In antiquity, the god Chronos (time) was identified with Saturn and depicted as an old man with a sickle. In the Christian era this figure became Father Time, who is often shown devouring his children and all things. Above, Chronos is distinct from Death; he holds both the hour glass,1 measuring so as to inform the skeleton Death of the moment for the extinguishing of the flame of life and the spear to stab and still the body. The inscription: "Tempus Erit" proclaims "the time will come": the time when we and all creation must die. Behind Chronos stands a 1:2 rectangular pillar with numbers arranged in a magic square overlaid by a Great Pyramid with a radiating sun or eye at its peak; an image very similar to the pyramid-eye on the American dollar.

The first example involves the most distant of the seven-planet system: Saturn – 378.09 days. If one adds the synodic orbits of all seven celestial orbits:

Moon	+	Mercury	+	Venus	+	Solar Earth	+	Mars	+	Jupiter	+	Saturn
29.53	+	115.88	+	583.92	+	365.24	+	779.94	+	398.88	+	378.09
The total is 2651 days. Then, multiply the Saturn orbit by 7 x 378.1 = 2647												

Frame 3.9

Thus the total of all orbiting bodies is equal to seven of the Saturn orbit. This is a difference of only four days, which, when one considers that we are calculating seven different return conjunctions to a one-degree margin of solar positioning, is a very tight cusp. If one then divides the combined orbits of the seven bodies by seven ($\frac{2651}{7}$) the theoretical average duration of each body equals 378.8 only 0.7 of one day from the actual Saturn orbit of 378.1 days.[3]

Saturn forms a beautiful floral of 28.5 loops in the sky, each of these loops being 378.09 days. One can then multiply 378.09 x 28.5 = 10775.565 days. This number divided by 365.24 = 29.5 years being the total years of Saturn's complete zodiacal journey and exactly equal to the number of days in one lunation cycle.[4] Thus, "The last (Saturn), shall be as the first and the first (Moon), shall be as the last".

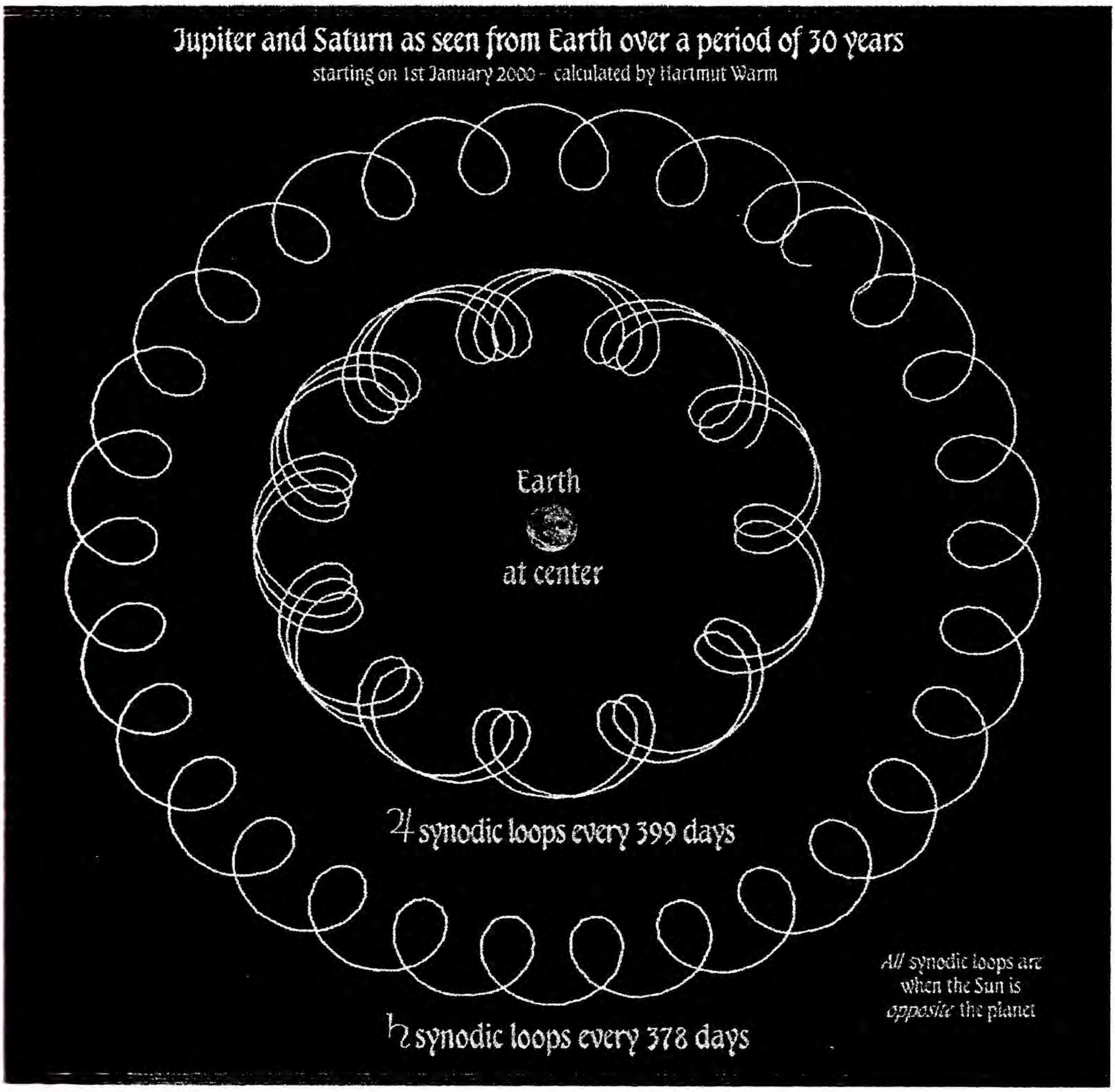


Figure 3.4 –The looping patterns of Jupiter and Saturn

In a period of thirty years viewed from Earth, Jupiter makes eleven loops, one [illegible] every 399 Earth days. Saturn makes 28 loops, each loop takes 378 Earth days. 28 x 378 full days = 10584 days and this number divided by 72 = 216 and divided by 504 = 21. In this way we observe the capacity of Saturn to hold a resonate measure (in days) of both the Precession and the Yuga cycles in years. As for Jupiter's looping pattern: 11 x 399 = 4389 days. This number is a multiple of 3, 7, 11 and 19. We have begun exploring functional aspects of the numbers 3 and 7. In coming chapters we will do the same with the crucial numbers 11 and 19.

THE WHEEL OF TIME, SATURN AND THE YUGA

The number sixteen, when expressed in the context of the Yuga has a very powerful cosmic role. The great "Stone Wheel of Time", a central icon in ancient Hindu religion – with its sixteen spokes represents this mysterious [illegible] phenomenon.

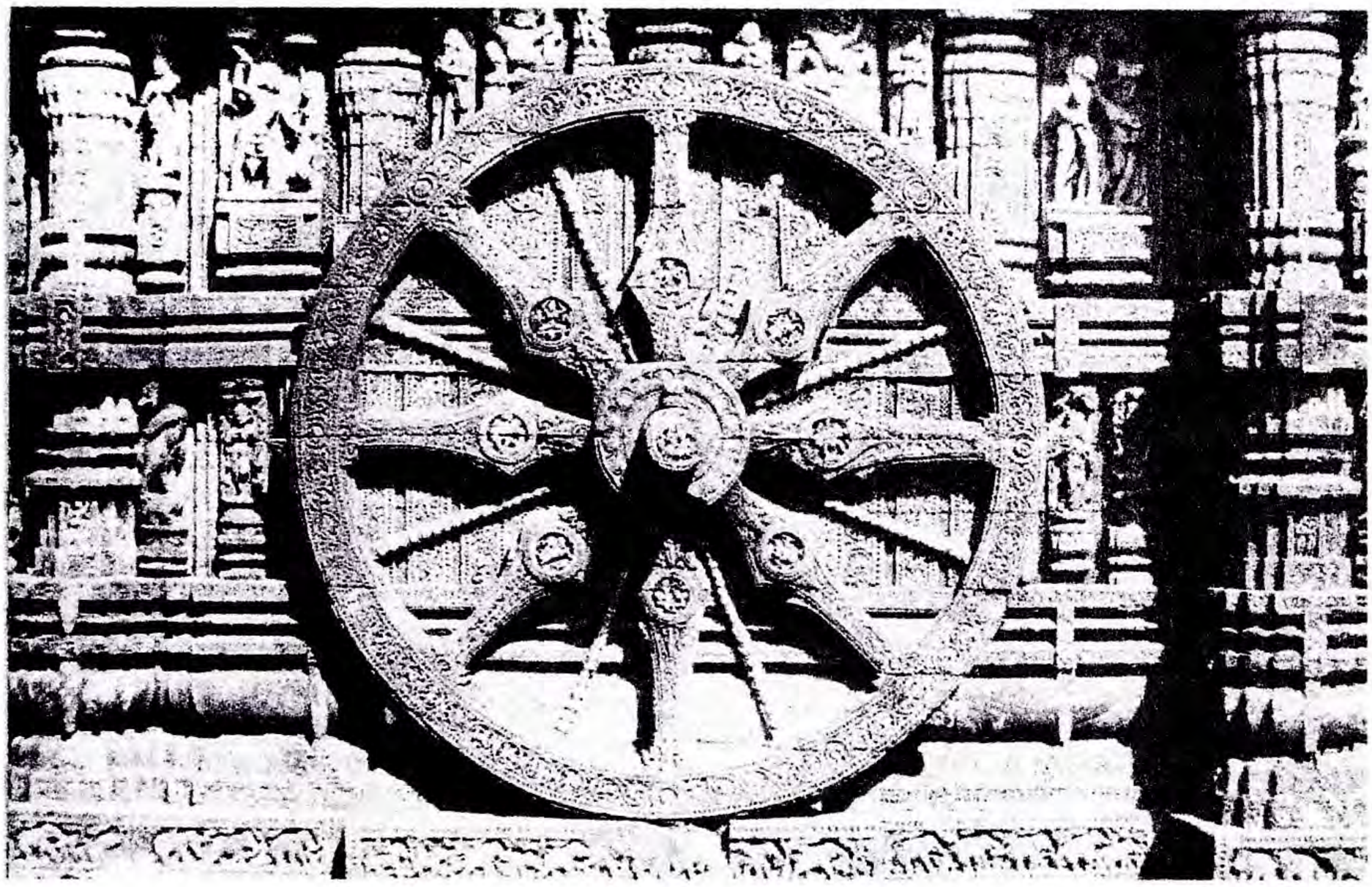


Figure 3.5 – Stone wheel

The traditional division of the great cyclic wheel of time, as constant and as stable as stone, was depicted as two crossings, one upright, the other on the diagonal with each of these eight intervals divided by a spiraling radiant line of force. This gives a total of 16 (= 4^2) intervals.

In dividing the Yuga duration by sixteen, one obtains $\frac{6048}{16} = 378$. The number 378 is the number of days that measures one of the 28 loops that Saturn's orbit appears to make in relation to that of the Earth. 378 is divisible by 6, 7, 9 and 12:

$$\frac{378}{6} = 63$$

$$\frac{378}{7} = 54$$

$$\frac{378}{9} = 42$$

$$\frac{378}{12} = 31.5$$

If one subtracts from 378 days the Earth's orbital time of 365 days, the result is thirteen. This number multiplied by the number of Saturnial loops (13 x 28 = 364) reveals the exact lunar calendar of thirteen months of 28 days. This is the calendar that establishes the human menstrual and pregnancy cycle (ten months of 28 days = 280 days) = time of infant in the mother's womb. If one then multiplies the 378 days by the 28 loops (378 x 28 = 10,584 days) and, in multiplying the number of complete days in the earth's orbit by the days in the lunation cycle (365 x 29 = 10,585 days) the

[illegible] shows an equivalency of Saturn's orbit from the Earth and Moon's [illegible] in days. Thus, we know that Saturn and the Moon are in resonance [illegible] lower – year / day) with the Earth. This resonant pattern is em-[illegible]ed in the 28 petal Lotus configuration in the sky and in the one-six-[illegible] division of the Kali Yuga.

JUPITER AS ZEUS

[illegible]e have seen how Saturn plays the God of Time, Chronos in the plane-[illegible] system. One more harmonic planetary integration, this time involving [illegible]e all-important number three and its multiples, and concerning Jupiter [illegible] with its twelve year journey through the twelve signs of the zodi-[illegible] circle.

[illegible] Year	+	Mercury	+	Solar Earth	+	Mars	+	Jupiter	+	Saturn
[illegible] days	+	115.88 days	+	365.24 days	+	779.94 days	+	398.88 days	+	378.09 days

Frame 3.10

[illegible]ssing from the list of six is Venus (Aphrodite), with whom Jupiter (Zeus) [illegible] some very discordant mythic episodes. The above tally of six orbits = [illegible] days which is equal to 6 x Jupiter (398.88) = 2393 days – a difference [illegible] one day. Recalling that with Saturn, the seventh planet, the list of seven [illegible] sums up as 7 x Saturn (378.09). One also finds that Jupiter, the sixth [illegible] is summed up in six other integrated orbits whose six averaged [illegible] are equal to 6 x Jupiter's synodic cycle.

[illegible] this complex integration of seven and of six inter-resonant [illegible] movements is an extremely complex thought form that could not [illegible] occurred by chance or accident. These exacting planetary patterns [illegible] that the 84 – 88 tonal sounds within the chromatic scale are reso-[illegible] throughout the planetary milieu as well as permeating the natural [illegible]. (See Chapter 1, Figure 1.2)

[illegible] difficult to deny that an original intelligence was required to rec-[illegible] these intonations and arrange them in a harmonically functional [illegible] system of consistent, orderly, heavenly progression and melodic [illegible] It is also doubtless that, to a limited degree, mankind shares in this

cosmic intelligence: as the Greek philosopher Heraclitus stated: "All wisdom is the recognition that an intelligence holds sway over anything and everything in creation." For Heraclitus, all things of this world are various forms of vibration which he symbolizes as a "fire". This concept which was adapted into the central precepts of Buddhism which posed fire as the natural analog of Dharma.[5]

This 3:7 relationship appears to be ubiquitous in our planetary system; within its combinations, variations and angulations. This observation prompted early star gazers to see this same relationship proportionally reflected in the *seven virtues* and *seven vices* that invade our behavior or values on three levels: body, mind and spirit. In every event of our lives, whether motivated by fate or conscious decisions, these seven-fold planetary influences interact with, and are inducted into, the vibrational field of the metabolism of our mind / body. This view allows for the conjecture that we as a species are not primarily involved in a Darwinian random style of evolving physical characteristics, but rather are carried through the cycles of time by an inner development of our collective and individual consciousness. It is this process of transformation that mystics believe will mysteriously project our next incarnate form. This is the great assumption and aspiration afforded by the application of geometry to the concept of "The End of Time".

PLATO, POWER AND THE PRIESTHOOD

Plato followed the proportional proposition of Socrates: "Rulers (Archons) are in relation to their subjects in the same way a shepherd is to its herd." The Hellenized faction in Palestine later launched Christianity by applying this politicized proportional concept and recasting *The Shepherd and Herd* image into an absolute religious hierarchy system from which the world has yet to escape. Socrates often repeated this phrase, "Common man is incapable of ruling himself." He then affirmed this view, "They have neither the virtue nor the knowledge to rule themselves... any attempts at self–rule will eventually lead to corruption, destruction and chaos."[6] Plato, a devoted follower of Socrates, was from a highly refined aristocratic lineage; what one would call a genetically born ruler or *Archon*. Furthermore, Plato assumed that the "knowledge" and "virtue" necessary for rulers had been genetically bequeathed to himself. The origins of this method of ritual Archonic breeding will be covered in some detail in subsequent chapters.

In response to this Socratic, authoritarian, belief-system there arose a revolutionary movement called the *Sophists*. This name is based upon Sophia, the Gnostic mother-goddess of the Earth and of this human "Earthling species". The Sophist philosophers believed or proclaimed, "all of humankind should be considered equal under the law:" Mankind should observe carefully the ways of the natural world and deduce their laws from those observations. Life in the city however, required additional laws that must emerge from a "common consent" and affirmation by the people "to be governed". The Sophist academics wrote, "The Creator has made all men free; nature has made none a slave." The Sophists argued against Plato's elitism in citizens learning the methods of logic, reasoning and rhetoric, the necessary skills that would enable them to participate in the Senate and popular assemblies. For this, Plato, who never questioned slavery, wrote with disgust and disdain against the Sophist movement.[7]

Plato in his *Republic, Timeaus* and *Critias*, outlines his program for establishing totalitarianism over the Athenian population after having been *disoriented and debauched* from decades of democratic self-government. To accomplish this agenda, Plato creates one of his typical propagandist myths, some nine thousand years before his time. He portrays a great nobleman, naming him as one of his own ancestors, named Solon, who returns to Athens after a long sojourn in Egypt. Solon, who the Athenians traditionally revered as the founder of Democracy, was appalled upon finding that the poor people of Athens had become enslaved by the powerful and high-born by means of the system known as "debt peonage." That is to say, a large number of debtors and their families were coerced and confined to a life of complete servitude simply due to their defaulting on mortgage payments. Solon wiped out this vicious institution of slavery and revoked the existing debt in his attempts to restore stability and establish social justice.

This is Plato's version of the story of Solon, which Aristotle soberly relates in his "Constitution of Athens". The reader at this point can hardly fail to recognize the similarities of this mytho-historical event to the worldwide economic mortgage collapse of 2008-09. Plato's version of the story of Solon, however, had a very different script and intention. Plato manipulated an ancient legend called the "The Birth of Athens" by inserting the idea of Atlantis and an invasion of Attica by a highly developed race from a sunken continent. His goal with this falsification was to imbue this sketch, supporting his ideal totalitarian society, with a halo of great antiquity.[8]

The next step in Plato's political deceit was to link Solon's name to his own totalitarian deformation of the ancient caste society. The caste system as previously outlined is a four-fold structure:

Feminine		Masculine	Caste
I..	Aristocracy (Hereditary Rulers)	Military	Kshatriya
II	Priests	Scholars and Philosophers	Brahmins
III.	Merchants	Bankers and Financiers	Vashiya
IV.	Artisans	Laborers and Craftsmen	Shundra

Frame 3.11

In the Hindu caste system the social organization is identical. The aristocracy-military caste was called the Kshatriya. The second caste of Priest-scholars was called the Brahmins. The third caste, were the mercantile and monetary caste, Vashiya, and the artisan workers, the Shundra. All four castes, as with all natural phenomena, have a feminine and masculine aspect. In the above list the left hand column represents the feminine aspect of that caste. Keep in mind that this vocational division was, for Plato and throughout early patriarchal urbane development, a strictly masculine institution. The gender differentiation is a metaphoric similitude.

Plato consolidated the philosopher-scholarly caste into the aristocracy, thus reviving a variation from a period in Babylonian history of the Philosopher / Priest Kings. Coincidentally, this ancestral combination was the caste identity of Plato's parents. Plato's ideal state was based upon the three-fold caste system replacing the prevalent four-fold. In Plato's pro-pagandistic mytho-history, it was the coordination and cleverness of this three-fold caste system that saved the ancient Athenian city-state from the Atlantean invasions.

This same form of absolute supreme authority was re-established early in the medieval Christian Empire in the institution of the Roman Catholic Papacy. The Greek word *pappas*; the title originally given to the church office of the bishop became popularized as "papa" equal to "father". This term became a reference to the Roman Catholic singular fully-realized, "Pope" or Latin "papa / pope". Throughout European history this usage was often nuanced with a disparagingly bitter tone, as these absolute church rulers were often vicious, corrupt and debauched. It was from the Papal throne that the orders originated for genocide of the native people during the Christian colonialization of Europe. The Roman Church had undoubtedly adopted from the Platonic legacy, this form of Philosopher / Priestly Kinghood. The European historians who recognized this totalitarian zealotry referred to it as Christian Platonism.[9]

Another aspect of Platonic Christianity was the utilization of an ancient geometric and harmonic proportional system which Plato had co-opted from Pythagorean knowledge. The scant historic references to Pythago-

[illegible] indicate that he acquired this knowledge during his travels in Ancient [illegible] and Egypt. This proportional knowledge was incorporated into 12th [illegible] 13th century Cistercian Abbeys to finally culminate in the architecture of the great European Cathedrals of the 14th – 16th centuries. It was this [illegible] design that gave the temples in Roman Christianity a tangible [illegible]-physical sense of other-worldly beauty and power. The proportional spacings swept the sensibility of common people into an awe and [illegible] from which the church derived an element of subliminal dominance and control.

[illegible] next key element in the Platonic totalitarian ideal state was the [illegible] "noble lie" which Plato placed on the lips of Socrates in the [illegible]". This aspect carries an explicit anti-democratic purpose. This [illegible] lie" was formulated as a preparatory device in transforming the [illegible]-hierarchical balance of the four-fold caste society into an absolute, [illegible] triadic, power structure. "Its purpose was to inculcate a sense of [illegible]icable inferiority in the lower and middle classes and 'program' them, as we would now say, for submission to the Philosopher Kings." This aspect of Plato's power structure became, in Roman Catholicism, the [illegible] of original sin". Plato not only utilizes the subliminal structure of the caste system for his "brain-washing" campaign but also a psycho-social [illegible] of "debt peonage" – that is, those who had defaulted on loans were placed in an inferior position, low on the ladder of community esteem. This again holds some similarities to the plight of thousands of homeless and unemployed families victimized by the mortgage-banking debacle which surfaced during 2008-09.

Throughout his various tomes, Plato bequeathed the principle features for [illegible] a Democratic state to a totalitarian state. He:

> [illegible]ed to figure out in the quiet of his academy, how a free [illegible] might be inured to a new bondage. His solution was an elaborate system of state-imposed ideological indoctrination by which the 'masses', from childhood, would be accustomed to think of themselves as inferiors. They were to be taught that they were born – and must remain – un-free and unequal. They would, Plato theorized, willingly obey their self-appointed betters.

[illegible] later review some of the state imposed educational indoctrination [illegible] masses devised by Plato to bring Athenian society out of a declining [illegible] into a totalitarian state. Plato's system bears a resemblance to the compulsory public education system imposed in most modern capitalistic systems.

SLAVERY BY SPIRIT AND BY SWORD

The next step in Plato's transformation agenda was to restructure the military by devising an innovative military caste called "Epikouroi". This meant an army of mercenary troops from foreign origins. These ideas reechoed in contemporary time with the United Nations' plans for a "New World Order" which very early recommended a dissolution of national states including the idea of various national "peace-keeping" armies stationed in countries other than their own. This would, it was assumed, prevent wars of competition or self-interest from developing amongst individual nations. Prior to Plato's time in democratic Athens, all soldiers had to be citizens or members of the polis. Most of these male citizens would uniformly maintain private possession of arms to defend the city's freedom but also have the power to defy any ruler who attempted to usurp the Democratic rights of the people. However, Plato's goal was to completely disarm the citizenry and to maintain foreign mercenary troops, or as Socrates called them, "Guardians" or "Watchers", "against foes from outside the polis, as well as against friends within. Thus, the latter could not wish, and the former shall be unable to work harm against the ideal state." These mercenary occupying troops were also given power to enforce an internal "Police-State" upon the citizenry. Thus we see the real nature of Plato's Utopian Republic and why he forbade independent, freedom loving minds like artists and poets. Plato's fantasy was a utopia for totalitarian tyrants only.[11]

We find the terms "Watchers" and "Guardians" in Hellenized Middle Eastern texts such as the Book of Enoch. The term also oddly appears in a theoretic musical scale written by Plato in which the fundamental note has the exact number of vibrations as the years in the Kali Yuga (5040). Plato sets out 37 tones, which he calls "Guardians". Musical analysis of this scale has shown that the indicated tonal vibrations have little or no musical values. Was this musical scale a coded strategy by Plato for stationing "Epikouroi" patrol units? We will later look at these possibilities and review the original meaning of the terms "Watchers" and "Guardians" as they appear in early Sumerian tablets.

PLATO AND THE BIRTH OF ILLUMINISM

There are contemporary commentators who conjecture that Plato's ideas are still operative in the modern world, having been transmitted by an in-

[illegible] secret society known as the Illuminati. I will have additional views [illegible] subject in the coming chapters, only to note here that the Illumi- [illegible] historically were avid initiates of Platonism. One very important key [illegible] identifying whether these alien troops were, "guarding" the Archons [illegible], while on their behalf, spying or "watching" the Athenian citizens? [illegible] approach is to quote some ideas both in contemporary and more tra- [illegible] investigations into unconventional history. One such writer is Dr. [illegible] Makow in his book, *The Illuminati: The Cult that Hijacked the World*.[13] [illegible] a summary quote from Makow's book. "Bizarre and incredible as [illegible] humanity has been colonized by a Satanic cult called the 'Illu- [illegible]'. According to Makow, the activities of this cult, "take the form of [illegible] world government that is conspiring against us. To distract [illegible] control us they have used a vast occult network that infiltrates most or- [illegible]ons, especially government, intelligence agencies, education and [illegible] media."

[illegible] find noted in the edited and republished version of *Proofs of a [illegible] 1798*, by John Robinson A.M.

> [illegible] few people are aware that the intense drama of our twen- [illegible] century – the life and death struggle between Capitalism [illegible] Communism, freedom and slavery – has its origins in the [illegible] eighteenth century. All Americans are aware that the Decla- [illegible]n of Independence was written in 1776. Few are aware that [illegible] Smith's Wealth of Nations, which provided the ideological [illegible]dation for capitalism and for the Industrial Revolution, was [illegible]lished in 1776. And, fewer still are aware that in that same [illegible] 1776. Adam Weishaupt, a professor of Canon law at Ingol- [illegible] University in Germany, founded the Illuminati Order, a [illegible]spiratorial organization that embodied all of the goals, aims [illegible] methods of what we now call Communism. All history books [illegible] tell you of the first event. A good many will tell you of the [illegible]d. But practically none will even allude to the last. Why? [illegible] you know the answer to that question you know history [illegible] than the historians".[14]

[illegible] coincidentally there is a 210 year duration between these two in- [illegible]s into the mysterious cult of Illuminati. Curiously the interval of [illegible] is an important time duration combined with (12 x 24 = 288) within [illegible] time of the Kali-Yuga.

210 years = 30 x 7	210 x 288 = 60480 = 10 Yugas and Four Great Ages
Henry Makow's	2008
Less John Robison's	1798
	= 210

Frame 3.12

One must always question even well documented books on the idea of a vast world conspiracy. Robison's book, as well as the other major source on Illuminism by the French Clergyman Abbé Augustin Barruel, appeared only a few months apart. The latter, an impressive four-volume work of the memoirs of the history of Jacobinism, was published in 1799. These men were writing at the same time but in different countries and in different languages without knowing each other, yet basically covering the same subject matter and arriving at the very same conclusion.

In each of these texts one can recognize the work of Plato as the underlying doctrine of Illuminism. Why? And who has elevated the cruel and repressive doctrines of Plato and Socrates, placing these characterizations, for centuries, upon the pedestal of academic acclaim? To address this question of the longevity of Platonic Illuminism, one cannot ignore certain ritual ceremonies which would have served to support the continuity of his work. Plato urged the bizarre practice of holding a "community of wives", that is a group of women having the desired qualities that could reinforce certain breeding traits in the offspring of this Guardian caste.[15] In other words, Plato believed in a breeding program for Guardians in much the same way as breeding thoroughbred horses. He spoke of these programs as being necessary for improving the "herd of Guardians." Their breeding and procreations were to be carried out in carefully organized and timed insemination rituals. Later, we will be able to reconstruct these ritual inseminations based on Gnostic texts that have been studied by anthropologists Ita Sheres and Anne Kohn Blau in their rather shocking book, *The Truth About the Virgin*. This work finally elucidates the origins of the concept of the "Virgin Mother", as found in well-known Christian texts claiming a virgin birth for their savior, Christ. However, a far more serious revelation is found in the Sumerian Gnostic text indicating that the ritual insemination of virgins was an aspect in the program of genetic modification by fertilizing a large segment of humankind with the seed of the militant *Annunaki* invaders. This dark aspect of ancient history will be summarized in coming chapters.

For Plato. like his devoted follower Hegel a millennium later, the abstraction of "The State" was the all-important focal point of human existence. Controlled breeding was necessary not only for the Guardians. but also for the purity of separate castes as an essential requisite for guiding the Ideal State and allowing it to flourish throughout the ages. With Plato and Socrates we have a well-documented example of a secretly organized eugenics program. This concept, emerging out of Plato's secret academy also re-emerges in the 19th century from a secret society called the "Lunar Circle." It was this clandestine group who brought forth the evolutionary theory of Charles Darwin as well as the infamous eugenics breeding program of Darwin's cousin Francis Galton.[17] There will be more discussion on this to follow. Plato also tactfully but clearly stated that it was justifiable to kill or banish any individual who did not comply in word or action with this totalitarian control. Again, Plato and Socrates refer to the human community as "the herd", and recommend for the improvement of "the herd", periodic episodes of "thinning-out" by "wise shepherds" and "natural rulers", the Archons. Socrates referred to the Archons as, "the ones who have the knowledge". One can also cite the obsessive goals of the 19th century American mining magnate John D. Rockefeller. who frequently pronounced the necessity of de-population programs and who contributed large grants for eugenic research.

There is reasonable explanation or mechanism for the continuity of transmission of complex programs and ideals over more than a millennia of time. One possible explanation is stated astutely and starkly throughout the aforementioned work of Dr. Henry Makow. I close this section with some passages and quotations from works by Dr. Makow and others.

> "Thus. the people who control our purse strings are conspiring against us. To distract and control us, they have used a vast occult network (Freemasonry) to infiltrate most organizations, especially government. intelligence agencies, education and the mass media".

> "Humanity is being re-engineered to serve the Illuminati. They undermine institutions like marriage and religion, and promote depravity. dysfunction, corruption and division. They have orchestrated two world wars and are planning a third".

> "The Luciferian Principle is the art of concealing darkness in light, war in peace, and finally, bondage in liberation from self-destruction. In this way, a people are seduced into embracing their own destroyer". (Eliezer)

"Woe unto those who call evil good and good evil, who put darkness for light and light for darkness"...Isaiah 5:20

"The individual is handicapped by coming face-to-face with a conspiracy so monstrous he cannot believe it exists".

J. Edgar Hoover

The Yuga philosophy of ancient India holds a key insight into the creation, origins, distribution, transformation and extinguishing of light. It would necessarily be an important element in Illuminist philosophy. I will later discuss important aspects in the ancient historical records that implicate Illuminism with critical events in Europe including well-documented involvement in provoking the American, French and Russian revolutions, industrial revolutions and world famine. However, the essential factor in the present context is that Platonism is recognized as the core of Illuminati initiate knowledge. This is especially the case with the above-mentioned Platonic programs for controlling the "human herd" through the mythic figure of the "Shepherd King".

"My flock has become a prey...because there was no shepherd, nor did my shepherds search for my flock but the shepherds fed themselves"...

Ezekiel 34:8

Given the recently established academic interpretations of Platoism, there would most certainly be a geometry to the steps in the realization of a Platonic World Empire. Let me recall how the measure of the Earth figures in the formula of the closing circle or cycle; $\frac{\pi}{3}$. Converting that into numbers; $\frac{66}{63} : \frac{\pi}{3}$, we find that sixty-three is the number of years that the 9/11 Twin Tower bombing occurred following the beginning of the twilight of the Kali Yuga.

	2001
Less	<u>1938</u>
=	63 years

Frame 3.13

While sixty-six is the number of years multiplied by 37 durations, marking the end of time: 66 x 37 = 2442 AD, and ten years after 2001, the alleged

[illegible]nation of Osama Bin Laden occurs; 63 + 10 = 73. This number of [illegible]ars marks a potent marriage of the oppositional numbers seven and three [illegible]ich also measures the side of the pentagon of the Earth's yearly [illegible]e of 365 days; 73 x 5 = 365. (See Figure 3.2)

The Initiatic Formula of π

$$22 \div \frac{3}{2} = 33$$

And

$$7 \times \frac{3}{2} = 10.5$$

And

$$\frac{33}{10.5} = \pi = 3.1416$$

[illegible]3 degrees completes the first circle of initiation in secret societies)

Frame 3.14

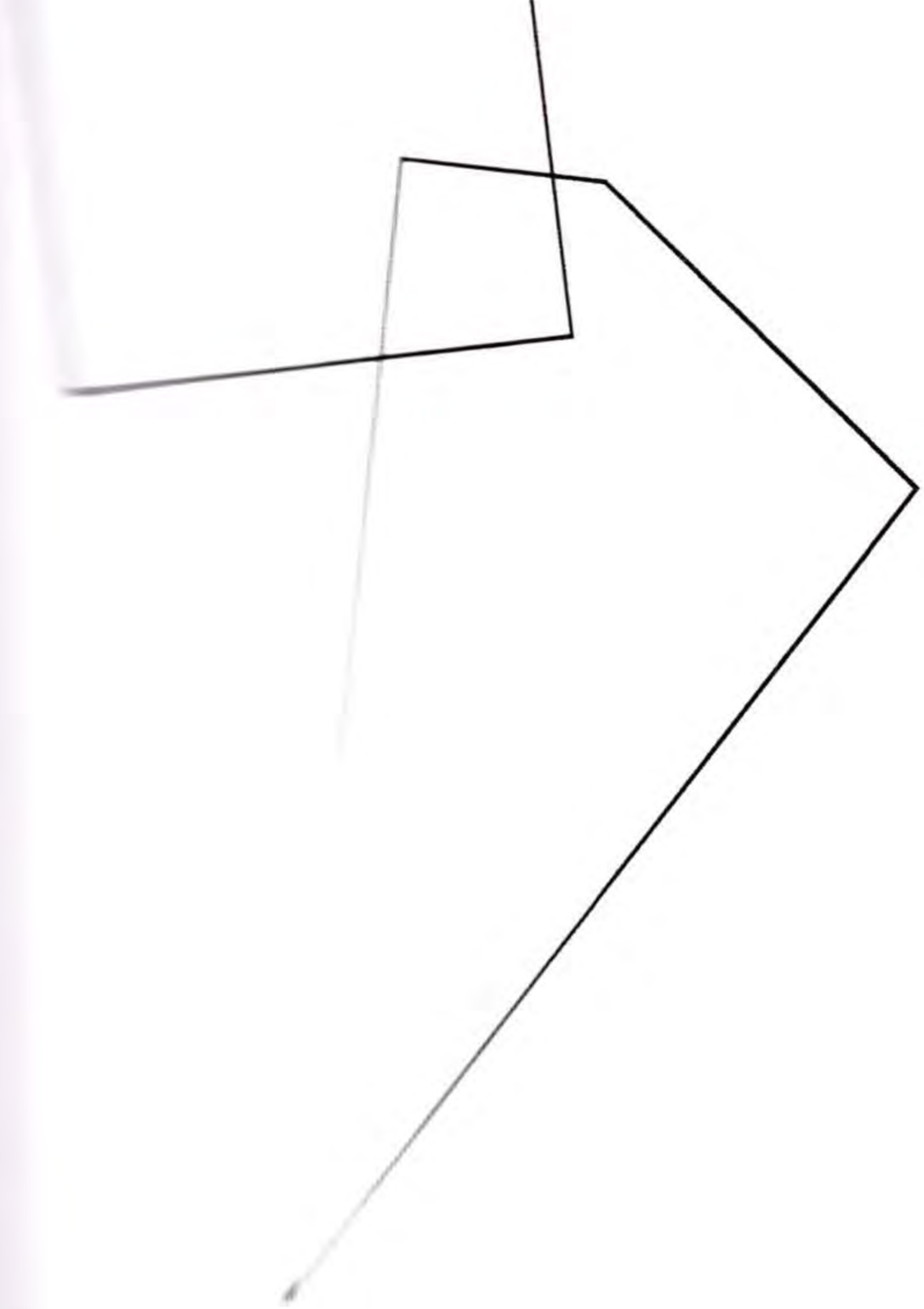
[illegible] relationships between curved and straight or female and male can [illegible]e explored in the variety of formulas involving the archetypal masculine [illegible]mber *three* with the archetypal feminine number *two*.

[illegible] archetypal polarities found throughout the Yuga system are consid[illegible]ed the origins of the apocalyptic tradition of the Judeo-Christian [illegible]onnects. With this connection in mind the "sacrificial murder" of Osa[illegible]a Bin Laden could be read as another stimulus in the long succession [illegible]Christian Islamic conflicts leading towards the rapturous, world-ending [illegible]omes held in both Hindu and Middle-Eastern doctrines. This view [illegible]ill be gradually pursued in coming chapters.

[illegible] M. Musik and Kosmos, Frankfurt, Thomas Schmidt, 1974, pg. 9-17.
[illegible] Time, Rhythm and Repose, London, Thames and Hudson, 1978
[illegible]
[illegible] Matrix of Creation, Vermont, Inner Traditions, 2004, pg. 32-34.
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[illegible] The Trial of Socrates, New York, Anchor Books Random House, 1998 pg, 157-168.
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] The Pythagorean Plato, New York, Nicolas Hays, 1978
[illegible] Illuminati – The Cult That Hi-Jacked the World, Winnipeg, Silas Green, 2008.
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[illegible] The Trial of Socrates, New York, Anchor Books Random House, 1998, pg. 170
[illegible] A. The Truth About The Virgin, New York, Continuum, 1995
[illegible] The Minds of Men, Toronto, TFE Publishing, 1984.

4

Someone Should Start Laughing



...and in its ancient measure
but like a drunk man babbling, almost mad,
he lay among his mysteries and desired
only this gold crumb he already had.

Rainer Maria Rilke – from *The Alchemist*

The preface and previous chapters have ushered in the accusation that the burden of materialistic theories and philosophies presently weighing upon the human imagination and sense of identity is an aspect of a world-ending heritage, rhythmically embedded in ancient cycles of Time. I would like to raise an even more obvious yet often neglected warning flag: we are here, author and reader, at the beginning of another attempt to represent in words and images the incredible regularity, complexity, beauty, and cruel wonders of the universe and natural creation. The intelligence of our species in recent centuries has been completely subsumed by what I will refer to as "The Book" in all its traditional and mass media variations. The Sufi Persian poet of the 14th century, Hafiz, prophetically addressed this impasse in a poem called *Someone Should Start Laughing.*

I have a thousand brilliant lies
For the questions:
'How are you?'
I have a thousand brilliant lies
For the question,
'Who or what is this creation?'
If you think that the truth can be known
From words,
If you think that the Sun and the Ocean
Can pass through that tiny opening called the mouth,
Oh then someone should start laughing.
Someone should start wildly laughing now![1]

Coincidentally, alphabetic literacy, codified law, institutionalized punishment, and monotheism all occurred at the same moment in history. That time was the forty year period between 1373 BC and 1333 BC with the midpoint being 1352 – 53 BC. The cultural innovation in law and theology that arose in this forty year period are associated with a curious legacy surrounding the numeric combinations in the above dates. We have already begun to investigate, in Chapter 3, those same number ratios and varia-

tions. They include 3:7 and 7:3 and 37 as well as the multiples of eleven such as 33, the initiatic number associated with Pi (Π) as well as 55 which, as will be demonstrated in Chapter 9, is a key number in the Golden Mean. Other important numbers which will appear in this investigation of the Yuga and planetary system are, by chance, present in this same era of cultural development. They are 13, 25 and 52 (i.e. 7 x 52 = 364)

1373 BC - 1373 ÷ 37 = 37 x 37.1081
1375 BC - 1375 = 55 x 25
1353 BC - 33 x 41 = 1353
1352 BC - 1352 ÷ 3.7 = 365.4
1333 BC - 1333 ÷ 3.7 = 360.02

Frame 4.1

1375 – 1373 BC. Akhenaten, as co-regent with his father Amenhotep III, at nineteen years of age began planning monotheistic temples in Karnak and Luxor. What prompted this goal in polytheistic Egypt? Akhenaten was the son of Amenhotep III and his Israelite wife Queen Tiye, the daughter of the Israelite patriarch Joseph. Joseph was the great-grandson of the biblical Abraham and grandson of Isaac. This was one of many of Israelite lineage who migrated to Egypt during the great flood and then drought of mid-fourth century BC: a time which corresponds with the beginning of the Kali Yuga. Akhenaten is the historic personage corresponding to the biblical *Moses* whose name was strictly an Egyptian title of respect for royal blood lines.[2] Akhenaten had spent his youth (12 -13 years) in an Israelite community near Goshen, sent there by Queen Tiye, his mother, before returning to make his royal claim for the throne of Egypt. During that time, Akhenaten (Moses) had acquired knowledge and belief systems from the teachings of YAWHE, the Annunaki regional director of the lands of Canaan. YHAWE is the pronunciation of the tetragrammaton (YHWH) considered the name of God. Amongst this extra-planetary heritage were Annunaki or Archonic concepts in societal control which had already been trialed in Sumeria and Babylonia such as: a non-hieroglyphic alphabet system, the so-called "Hammurabi" civil hierarchical code of law and punishment and the monotheistic, monarchical doctrine of absolute obedience to the one King and one God.[3]

After desecrating the polytheist temples of Luxor and Karnak and attempting to impose monotheism on Egypt, Akhenaten planned to build his own capital at Armana with a monotheistic temple to Aten, the solar

disc. With his life under threat Akhenaten fled to an outpost in Sinai with Israelites and other monotheistic loyalists. Tutankhamen, his ten year old son, took the throne of Egypt in 1360 BC (34 x 40 or 17 x 80 = 1360 BC).

1353 – 1352 BC. Tutankhamen, at eighteen years of age, tried to forge a compromise with his father and changed his name to Tutankhaten, adding to his name the monotheistic sun-god Aten. With the compromise formulated the young Pharaoh made his way to Sinai. However, the young king's angry father, Akhenaten, had his son tortured and hung, thus making Tutankhamen a historically contorted prototype for the sacrifice of Jesus. The latter, according to Christian belief, was also commanded by the will of the Father and for the ideal of monotheism.[5]

1333 BC. The 18th dynasty ended and the 19th began with Ramses I and Set I. These Pharaohs forced the band of Israelite and Bedouin followers of Akhenaten to begin their desert pilgrimage back to their ancestral land of Canaan. Akhenaten (Moses) died before reaching the "promised land".

PORTRAITS OF AKHENATEN



Figure 4.1a

This image emphasizes the strange serpentine aspects of Akhenaten's face

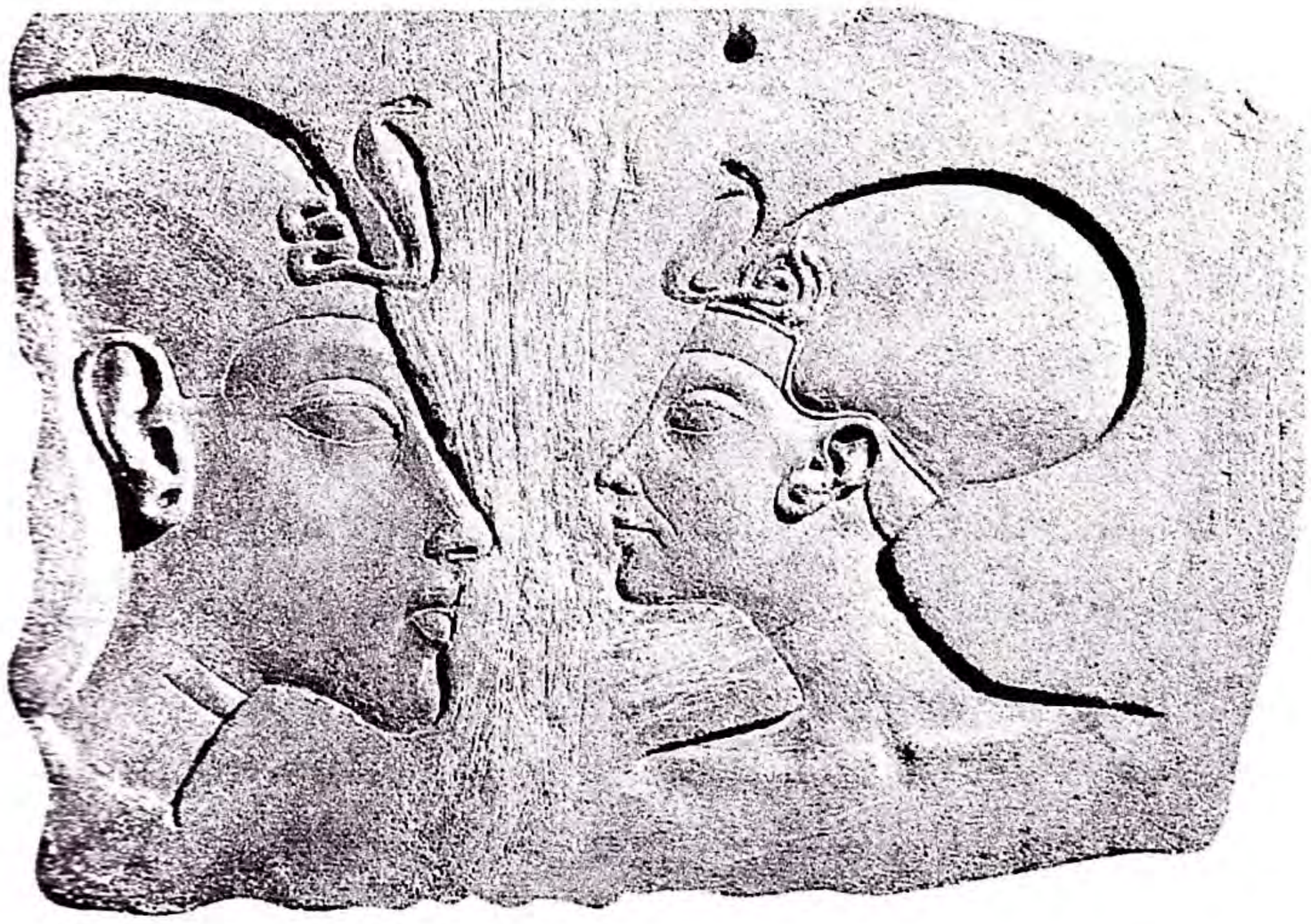


Figure 4.1b

[illegible] with Nefertiti. Both reveal the elongated (Archonic) head shape.



Figure 4.1c

[illegible] worshipping the singular God Aten, the physical solar disk.

THE POWER OF THE BOOK

These concurrent innovations of alphabetic literacy, codified law and monotheism, all of which revolved around the strange figure of Akhenaten, changed every human relationship, whether with oneself, with others or with the belief in a Higher Consciousness.[7] They also drastically altered the societal order. It is these same innovations that allowed for or encouraged large urbanized developments and deforestation, expansive agriculture, and the system of hierarchal government. Marshall McLuhan. the renowned philosopher of language and communication said, "Literacy, socially and politically, is the most radical explosion that occurred in any societal structure." McLuhan also said, "Schizophrenia may also be a necessary consequence of literacy."[8] McLuhan is not making a frivolous comment on the ways in which the civilizing experience, that is "living in cities", bonded as it is to the influence of literacy, has alienated humanity from direct physical involvement with the natural world. In urban domiciles, vehicles, and architectural structures, wrapped in clothing with shoes interrupting a body to Earth-current flow, our entire relationship to nature becomes schizoid. At the same time as being an innate extension of earthly creation, we have become estranged and terribly isolated as a species. Language and books now serve as our major contact with the very source and Mother of our being. As Moses purportedly stated in the Old Testament, referring to the power of the written word, "Deep within I will plant My Laws written in words on their hearts."[9]

It is by means of language and the printed word that widely circulated concepts and fixed dogma serve as midwife to the mass pathology of European religious materialism. It was "The Book" that underscored the inquisitions: the blood drenched wars of religious reformation, witch hunts, and the torture and execution of women. It was "The Book" that imprisoned Europe for centuries in totalitarian religious fascism and the genocidal colonialism of indigenous cultures worldwide. It was books that carried the inflated ideals of scientific enlightenment and the political ideological revelations that followed. It was the written word and its Indo-European heritage that locked Western thought into continual psychotic episodes of war together with the desecration and exploitation of the natural world. in concert with the delusion of the perfectibility of human kind and the Utopian transfiguration of human society. This final collective phantasm originated in Indian philosophy, the motherland of Kali-Ma and the Yuga cycle.

THE BOOK OF INNER BLINDNESS

"There is one fact that can be established: the only phenomenon which, always and in all parts of the world, seems to be linked with the appearance of writing...is the establishment of hierarchical societies, consisting of masters and slaves, and where one part of the population is made to work for the other part".[10]

Anthropologist, Claude Levi Strauss

For indigenous people both animals and plants, in addition to providing nourishment, had always been a source of symbolic self-recognition of their instinctual, emotional, and physical drives and behavior. With literacy and civilization, we have become dependent on books to inform us of the deeper aspects of our own psyche as well as that of our environment. However, as the French philosopher Michel Foucault has indicated, language is not capable of encompassing or accurately reiterating the world of earthly or human nature. "It is in vain that we say what we see, what we see never resides in what we say."[11] The artist Marcel Duchamp said, "As soon as we start putting our thoughts into words and sentences, everything gets distorted. Language is just no damn good. I use it because I have to, but I don't put any trust in it because we never really understand each other."[12]

Recently, the Australian Broadcasting Company's much acclaimed "Science Show" (June 2011), reviewed the results of an extensive investigation into the cognitive effects of literacy in brain function.[13] It was pointed out that the brain evolved with absolutely no specialized function for reading and writing. As literacy began to be imposed, areas of the visual cortex adapted to the processes of associating words and their spellings to images. objects and phenomena. As this process developed it enforced the necessity of utilizing memorized alphabets, grammar, word usage, writing forms, language structuring, recognition and vocabulary expansion. All of these acquisitions "colonized" brain regions previously allocated to solely visual awareness and processing.

The study verified that the visual acuity of preliterate peoples was far greater than literate cultures which had sacrificed large portion of their visual cortex to "The Book", that is to reading and writing. European colonial invaders, observing the Aboriginal people of Australia, frequently remarked, "I've never seen a lost Aborigine." Even young children could go on long expeditions without adults and return before dark without fail, even to a new campsite. Cognitive research attributes this capacity to the

expanded activity of the visual cortex in recording rich detail of the travelled landscape. Indigenous preliterate peoples throughout the world perceive and retain vast amounts of detail about animals, plants, geological features, climatic and light shifts etc. They often are able, even in the direst circumstances, to locate water, find a correct directional course or an animal habitat due to their consistent innate visual power of scrutiny. They also detect subtle energy fields surrounding living creatures, land formations, locations, and many other subtle phenomena to which we have been blinded by the walls of words and grammatical structuring. For the most part we are only aware of actions or circumstances to which we can see or attribute a material causation and thus the entire subtle world goes by unnoticed to our literally blinded vision. However, sometimes, often with the aid of psychedelic substances or in hallucinatory states such as dreams or hypnotism, that subtle world becomes apparent and actual to even those with the most literalized sense of reality. This realization of the misleading dangers and inadequacies of language and books is not new, nor is the exploitation of the written word by those seeking power and gain under the cloak of religion, politics, or economics. In spite of these deficiencies and obstacles it is not, in our time, a reasonable option to abandon attempts to communicate ideas and data that might assist in relieving, even momentarily, some of the harrowing mental confusion, inattentiveness, lack of preparedness, deceit, and suffering which abounds, even within the most advanced societies functioning in this, the "Information Age".

In conclusion I have added a recent editorial from the Los Angeles Times dated April 1st 2012 which draws together themes concerning the power of "the word" being employed to shape and control our sense of reality and hence human destiny. This article is a brief summary of contemporary academic cosmology based upon conventional assumptions and values. followed by a response.

Pondering a universe without purpose

> P.1 - The illusion of purpose and design is perhaps the most pervasive illusion about nature that science has to confront on a daily basis. Everywhere we look, it appears that the world was designed so that we could flourish.

Response to Paragraph 1

Is it quite reasonable to conjecture as to why a scientist, whose discipline is completely founded upon detailed and accurate observation of the physical world, would toss aside centuries of experimental and empirical obser-

vations to pigeon hole the entire natural world as an illusion in the manner of a Buddhist sage?

> P.2 - The position of the Earth around the sun, the presence of organic materials and water and a warm climate — all make life on our planet possible. Yet, with perhaps 100 billion solar systems in our galaxy alone, with ubiquitous water, carbon and hydrogen, it isn't surprising that these conditions would arise somewhere. And as to the diversity of life on Earth — as Darwin described more than 150 years ago and experiments ever since have validated — natural selection in evolving life forms can establish both diversity and order without any governing plan.

Response to Paragraph 2

The second paragraph begins with a proposal that the design, order and precision found in the molecular structure or the life and substances which occur in our natural world and universe can also be theoretically assumed to exist throughout a universe, a universe which has now, finally, been realized, even in the confines of science, to be an infinite immensity. Professor Krauss states the idea of the Universe being an infinite creation as if it was a revelation of modern astronomy, failing to acknowledge that philosophies and ancient traditions held this view of an infinite cosmos for millennia and that it is only 16th to 19th century European scientism that fostered the myopic Newtonian and Gallileoan view of a finite, rational and mechanical world.

The next theory that Kramer extols, that there must be 100 billion solar systems in our galaxy alone, with solar systems like ours and Earth like planets with life supporting elements, has recently been overturned by an international Planet Search Program. This research has located a number of sun-like stars with orbiting planets. However, not one system has planets, with all aligned at the same planar level and maintaining consistent orbital speeds and timing. Also, of the possible 400 planets observed, no planet resembled the life-support conditions as on Earth. The Planet Search Program now speculates that the probability for a solar system and Earth like conditions amongst the billions of solar systems assumed to be in our Galaxy is now considered about 0.1%.[14]

The second statement in the second paragraph is a complete fabrication: Darwinism is a "theory", it has not been experimentally validated, neither with fossil evidence nor archeological, geological or biological evidence.

P.3 - As a cosmologist, a scientist who studies the origin and evolution of the universe, I am painfully aware that our illusions nonetheless reflect a deep human need to assume that the existence of the Earth, of life and of the universe and the laws that govern it require something more profound. For many, to live in a universe that may have no purpose, and no creator, is unthinkable.

P.4 - But science has taught us to think the unthinkable. Because when nature is the guide — rather than a priori prejudices, hopes, fears or desires — we are forced out of our comfort zone. One by one, pillars of classical logic have fallen by the wayside as science progressed in the 20th century, from Einstein's realization that measurements of space and time were not absolute but observer-dependent, to quantum mechanics, which not only put fundamental limits on what we can empirically know but also demonstrated that elementary particles and the atoms they form are doing a million seemingly impossible things at once.

Response to Paragraph 4

Ignoring the third paragraph in which our writer positions himself upon the podium of authority we move onto his announcement that due to his scientific education, Laurence Krauss has transcended all the foibles. "Prejudice, hopes, fears or desires", of ordinary people and with this transcendant vision he has situated the wonder of creation upon two strictly unobservable models; that of atoms and quantum mechanics. With these invisible models, formulated entirely by the *observer dependent* mind it is now not only, "Empirically known, but also demonstrated that elemental particles and the atoms they form are doing a million seemingly impossible things at once." Let us pause and review this argument. Lawrence Krauss stated that he has proof that an incredible principle of order and multi-leveled organization extends throughout a seemingly infinite universe of billions of galaxies, and this order permeates to the most finite imaginable particle. Within this order, Earth, the natural world, living organisms and our bodies are inseparably embedded. In other words, he has stated that we are a part of an immense configuration of organized intelligence, expressed in many levels of density and which is beyond the capacity of our present consciousness to comprehend. Let us hold these convictions in mind as we proceed.

P.5 - And so it is that the 21st century has brought new revolutions and new revelations on a cosmic scale. Our picture of the

universe has probably changed more in the lifetime of an octogenarian today than in all of human history. Eighty-seven years ago, as far as we knew, the universe consisted of a single galaxy, our Milky Way, surrounded by an eternal, static, empty void. Now we know that there are more than 100 billion galaxies in the observable universe, which began with the Big Bang 13.7 billion years ago. In its earliest moments, everything we now see as our universe — and much more — was contained in a volume smaller than the size of a single atom.

Response to Paragraph 5

At the close of paragraph five he summarily provides a model for *The Beginning*: "In its earliest moments, everything we now see as our universe — and much more — was contained in a volume smaller than the size of a single atom," which he later converts into the old nihilist ideal of "nothing". Many facets of modern secularism can sympathize with science given the disastrous cosmological attitudes we have inherited from the development of monotheistic religions as well as the horrors of wars and distortions from empire building for which these monarchial, hierarchical doctrines were intended and utilized. However, instead of arriving at the existence of an "infinite, absolute unified intelligent state of being," which his somewhat mystical assertions tend to support, Krauss reverts to his basically 19th century materialist atheistic conditioning as well as voicing the well-worn cult belief in the ideal of the well-behaved, subjugate, materially successful individual life stated in paragraphs 13 and 14. I will leave other topics for the interested reader to muse over such as allotting gravity a repelling force and the newly named Higgs field and particle (God Particle) which allegedly organized, all by itself, our Universe

P.6 - And so we continue to be surprised. We are like the early mapmakers redrawing the picture of the globe even as new continents were discovered. And just as those mapmakers confronted the realization that the Earth was not flat, we must confront facts that change what have seemed to be basic and fundamental concepts. Even our idea of nothingness has been altered.

P.7 - We now know that most of the energy in the observable universe can be found not within galaxies but outside them, in otherwise empty space, which, for reasons we still cannot fathom, "weighs" something. But the use of the word "weight" is perhaps misleading because the energy of empty space is gravitationally repulsive. It pushes distant galaxies away from us at an ever-faster

rate. Eventually they will recede faster than light and will be unobservable.

Response to Paragraph 7

To conclude, I would like to point to this paragraph in which the author implies what is termed in physics as "Dark Matter and "Dark Energy" seems to completely fill extra-galactical space but possesses no atoms nor quantum base yet does have a mysterious quality which Krauss and others refer to as "weight". This description evokes the qualities of thought, that is a field activity which is indisputably present, yet has no particulated base. One might consider, as did the ancient Gnostics, that this dark, invisible, immaterial field presence is what they considered to be the very core essence of creation, "a thought of a thought of a thought." That is to say, a triadic infinite moment of consciousness, which holds in itself both the mystery of memory and dreams as well as the imaginations of a future.

P.8 - This has changed our vision of the future, which is now far bleaker. The longer we wait, the less of the universe we will be able to see. In hundreds of billions of years astronomers on some distant planet circling a distant star (Earth and our sun will be long gone) will observe the cosmos and find it much like our flawed vision at the turn of the last century: a single galaxy immersed in a seemingly endless dark, empty, static universe.

P.9 - Out of this radically new image of the universe at large scale have also come new ideas about physics at a small scale. The Large Hadron Collider has given tantalizing hints that the origin of mass, and therefore of all that we can see, is a kind of cosmic accident. Experiments in the collider bolster evidence of the existence of the "Higgs field," which apparently just happened to form throughout space in our universe; it is only because all elementary particles interact with this field that they have the mass we observe today.

P.10 - Most surprising of all, combining the ideas of general relativity and quantum mechanics, we can understand how it is possible that the entire universe, matter, radiation and even space itself could arise spontaneously out of nothing, without explicit divine intervention. Quantum mechanics' Heisenberg uncertainty principle expands what can possibly occur undetected in otherwise empty space. If gravity too is governed by quantum mechanics, then even whole new universes can spontaneously

appear and disappear, which means our own universe may not be unique but instead part of a "multiverse."

P. 11 - As particle physics revolutionizes the concepts of "something" (elementary particles and the forces that bind them) and "nothing" (the dynamics of empty space or even the absence of space), the famous question, "Why is there something rather than nothing?" is also revolutionized. Even the very laws of physics we depend on may be a cosmic accident, with different laws in different universes, which further alters how we might connect something with nothing. Asking why we live in a universe of something rather than nothing may be no more meaningful than asking why some flowers are red and others blue.

P.12 - Perhaps most remarkable of all, not only is it now plausible, in a scientific sense, that our universe came from nothing, if we ask what properties a universe created from nothing would have, it appears that these properties resemble precisely the universe we live in.

P.13 - Does all of this prove that our universe and the laws that govern it arose spontaneously without divine guidance or purpose? No, but it means it is possible.

P.14 - And that possibility need not imply that our own lives are devoid of meaning. Instead of divine purpose, the meaning in our lives can arise from what we make of ourselves, from our relationships and our institutions, from the achievements of the human mind.

P.15 - Imagining living in a universe without purpose may prepare us to better face reality head on. I cannot see that this is such a bad thing. Living in a strange and remarkable universe that is the way it is, independent of our desires and hopes, is far more satisfying for me than living in a fairy-tale universe invented to justify our existence.[15]

Lawrence M. Krauss is director of the Origins Project at Arizona State University. His newest book is *A Universe From Nothing.*

It is interesting, in response to Krauss' cautious dismissal of what he terms, *divine guidance*, (paragraph 13) to consider the very recent revelation about

the nature of the living tissue in the human body. The substance of our various organs is said to be comprised of colonies of micro-organisms which have been 'coralled' so to speak into forming and preforming the necessary activity associated with that organ. These recognizable micro-organisms within and outside the body do have their own on-going, separate life process. These scientists emphatically announce that only about five percent of our physical form can actually be claimed as human! What does this mean? Does our genetic code somehow replicate the physical traits of hundreds of pre-existent microscopic organisms in addition to the enormous complex coding of our own physical manifestation? This is a mathematical impossibility! It seems almost necessary to conjecture that there be a universal intelligence-force, moving through human consciousness that projects and "transmits" the genetic patterns of the most primary organism, guiding them into formation while imposing the functional orders and processes of a specific human organ or tissue. This projection must be maintained and subliminally conveyed via human consciousness during the entire individual life. It is not possible for any vast, complex system to come into and maintain a separate existence, without a pre-existing meta-physical intelligent source.

The punch-line however of Krauss' confused little essay appears in paragraph eleven where after vaguely offering the notion of "nothingness". Krauss, in the typical manner of a 19th century materialist atheist, suggests that order, complexity, balance and almost miraculous forms and functions of the universe arose, by themselves, from "nothing". A more logical as well as intuitive premise would read that nothing can come *from nothing*. Krauss' simplistic foray into Nihilism blinds him to the contemplation of the relatedness of a permanent, metaphysical reality with a temporary physical appearance, a concept which is necessary for any mature thought process. Jerry Manders book, *In The Absence of the Sacred*, explains the frightful implication of such ideologies: we must not allow scientific advocates, acting as servants of the industrial commercial factions and corporations to desacralize the Earth's natural realms and humanity itself. This attitude, Mander proposes, is motivated by their conviction that the sense and respect for the sacred would act as a deterrent to the process of commodification of resource and the productive and profitable exploitation of human energy. Mander quickly sums up this view in the following, slightly paraphrased statement, "it does not matter whether it is a new Ferrari or Rolls Royce, there is no such thing as a good car".[16]

We have accepted (for the most part) the damaging gifts, to both the spirit of man and nature, bestowed by a "mega-technological" madness: weaponry, nuclear explosives and power, telephones, television, comput-

ers. internal combustion engines, high rise architecture, animal extinction, the death of the ocean, poisonous chemicals in agriculture with media and industry spreading these technologies throughout our world, of over-population and over-commodification. In return for these "gifts" from the scientific world we have lost the capacity and opportunity to learn and grow our intelligence and soul and acquire our strengths directly from the sacred earth, instead we have been "hollowed out" and "robotized" in an obsessional productivity, designed to optimize the profit, wealth and power of an elite. This then, is what Mr. Krauss willingly chooses as the only remaining "purpose" in the Universe, that of techno-materialism while failing to discuss a world of starvation and obesity, degeneration, overproduction and waste while simply ignoring the continuation and the accelerated destitution of nature and the human spirit.

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