

Introduction

This is the story of a nameless caveman who discovered the Holy Grail of molecular biology 20,000 years ago thus inspiring spiritual traditions on six continents, and of a mysterious relation between that simple stone-age discovery and the eternal, mathematical structure of the universe...

A few words on Symbolism

There is, perhaps, nothing that looms so large in the human psyche as symbol. They inform, in a silent and covert way, the structure of every aspect of our lives: the political and economic, the social and cultural, the personal and spiritual. They represent our ambitions and expectations: of our leaders and warriors, of our parents and children, of our lovers and companions, of the world around us, and especially ourselves. But what is a symbol? Some say symbols are not symbols at all, but actual things, actual events: that to which symbols refer are *historical and objective*. Some say that symbols are artifacts of the mind, and have no existence in the real world: that to which symbols refer are *poetic and subjective*. Perhaps the truth lies somewhere in between.

There is no simple definition. We use symbols to express something that defies expression any other way. It's a way of putting into words or pictures, ideas that, by definition, *cannot* be put into words or pictures. When we encounter such inscrutable and indefinable ideas, we say instead, "The (insert mysterious quality here) *is like*...(insert symbol here)." For instance: "Liberation *is like* a bird flying in the sky." A symbol is a crude analogy, a bridge, between something understood (like a bird), and something not understood (like liberation...whatever *that* might be).

The most curious thing about symbols is that they are not arbitrary; they are, it seems, rather an absolute of the human condition. The persistence of the same symbols across time and geography indicates a biological connection: they are an inherited knowledge, an echo or reflection of some numinous structure of the human psyche. And as such, they inevitably determine the way we perceive the world, and thus color all we can know of it.

A symbol is distinct from a sign. Once the meaning of a sign is understood, it is unambiguous: it means what it means and nothing else. And a sign is arbitrary: a stop-sign could have been a purple triangle, and functioned equally as well. A symbol may be mysterious and enigmatic, but it is never arbitrary. Christ could not have spent, say, five days in the cave before ascending to heaven. Archetypal symbols always have their basis in nature - the same nature of which we and our brains are the product. So it is with the three days in darkness before the Resurrection - a universal motif far older than Christianity. The three days in the cave is a symbol that has its basis in the fact that the new moon dwells in darkness for three days before it reappears - before it is resurrected - as a solitary beacon to guide us through the unknown and forbidding darkness.

This lunar rebirth is itself a symbol. There is some part of us, some primal domain hidden in the depths of the human psyche, that *understands*... Out there, somewhere unknown, is some *thing* unknown, which activates this invisible appendage of the mind, and causes a profound resonance. Resonance, like the vibration of two strings in perfect harmony, is mysterious; all we can understand for certain is that somehow two *separate* things are magically bound together into a sudden and unexpected *unity*. And they are *bound by resonance*: one string is us; the other is...? Symbol, then, is a medium of expression that connects our manifest aspect to a *secret* aspect we cannot see and only rarely acknowledge.

The most ancient and primitive region of the mind, the proto-conscious *amygdala* (a little bulb at the very bottom of the brain, sometimes called the "reptilian brain"), is a foreign land with a foreign tongue. It does not communicate in the language of the everyday territory of consciousness. We know only that there is something we are *supposed* to know, but we cannot know the thing in itself. At the most profound level of our being we resonate with the Grand Mystery, and we

seek to convey that mystery by saying, "the emerging moon *is like*..." Our conscious identities have no resolution for that expression, but somewhere down deep, in the primal, dark-continent regions of the mindscape, *we know*...

The Symbolism of the Spiral

he visual motif of the spiral is one of the oldest and most enigmatic sacred images known. It is, in fact, among the very earliest examples of human creative expression, first appearing some 20,000 years ago. As millennia passed, this curious image found its way into the spiritual iconography of nearly every society in the ancient world: from Ireland to Japan, from Alaska to Tierra del Fuego. We see the sacred spiral in the totemic carvings of the Haida, the vast ground drawings of the Nazca, the megalithic monuments of western Europe, the classical architecture of the Mediterranean, Arabic calligraphy, Persian carpets, yogic diagrams from India, decorative Chinese porcelain, and Shinto rock gardens. Its ubiquity endures to our modern day, where we see at least some examples of it in literally every category of thing that has been decorated by man.

The spiral has a universal appeal, and this fact is a sure indication of some mysterious resonance with the human psyche. What does the spiral mean to us? Its early association with the Mother Goddess (it is often found with, or on, small, paleolithic-era stone carvings of the Goddess) suggests some kind of connection to the mysterious and miraculous process of life that is embodied in the Feminine - the door through which life enters this world. But why a spiral and not some other image? Anthropologists are still unsure about the origin of its use, but there are speculations:

1) It echoes the shape of animal viscera. Perhaps these early hunters saw the shapes found within living beings, and formalized this "animating force" as a spiral.

2) In an abstract sense, it is indicative of time. For early people, the passage of things was always around and around: day becomes night becomes day; the seasons come and go, but always return once again; lives come into being, and go out of being, but there is always new life coming into being.

A circle, movement revolving back on itself, is a common and useful symbol for time. But a circle, tracing the same arc again and again, is a static thing and doesn't really describe how we perceive time. We remember what happened last year, and the year before that; those past tracings of the arc are not erased by new tracings. The seasons come back upon themselves as they do, but all the ancient seasons are somehow still here...inside the new season. The cyclical rotations of time seem to wind around all the previous cycles, on an infinite journey to...whenever, or wherever, time is going.

So perhaps the first people saw in the dynamic movement of a spiral, the image of time: time being understood by them as that direction of events that brings into being all things, beckons out of being all things, and then regenerates new being again. Just like the moon that comes into and goes out of being, but is always reborn again; just like the plant which dies, but in the dying yields a seed to be planted in the womb of the earth for regeneration - a source of nourishment for *our* regeneration. It was this regenerative aspect of the spiral of time that suggested the association with the Feminine.

3) It is an early Mandala, or meditative aid. The spiral certainly has a meditative quality. The ancient Eurasian variety of these early spirals had three interesting qualities: they were all associated with the Goddess, they often had *seven* winds or cycles, and they usually possessed a pronounced dot to mark the center.

The winding passage to the center - sometimes called the "labyrinth motif" in journeys through a maze-like underworld - is a prominent theme in sacred stories everywhere. In the *concrete* sense, the labyrinth spiral is like the caves in which early people lived. Those caves, sanctuaries from predators and ice-age weather, must have been revered, holy places. It is quite likely that the only peace and rest those early humans ever knew was found in the mysterious, winding recesses of those precious caves. It was there that food was prepared and eaten, there that clothes were made, there that the forces of nature were honored in ritual, there that new human life was brought into the world. Paleolithic man lived in the womb of the Mother Earth Goddess: caves of regeneration and transformation.

But there is another, *abstract* sense of the labyrinth spiral that is important. It is evocative of the bewildering choices we must make to find our way in the world "out there", and the equally bewildering choices we must make to find our way "in here" - in the tangled maze of our own inscrutable psyches. And the "Mystic Center" (known by many names - Axis Mundi, Immovable Spot, World Tree, Cosmic Pillar, etc.) is understood to represent a still and silent place (or state of being); it is the motionless heart, the focal nucleus around which spirals the whirling storm of space and time. It is the source from which all things come, and to which they endeavor to return for regeneration. The Mandala Spiral is a symbolic representation of a spiritual journey to a place beyond the visible world...

The Symbolism of the Serpent

here is another ancient symbol as old in the human imagination as the spiral: the serpent. And like the sacred images of the Goddess and the spiral, the serpent has found its way into every spiritual tradition in the world. (There are islands in Oceania that possess no snakes, and thus no serpents in their traditions; curiously, they are replaced by the best local approximation: eels.)

The symbolism of the serpent operates at several levels, but one of the most obvious characteristics of the snake to ancient peoples was its curious ability to shed its skin. From the dried and cracking gray husk of its former self, the snake emerges moist, colorful, youthful, revived...regenerated. It is known that on certain occasions the emerging snake will actually consume the skin he leaves behind - it is an excellent source of protein. What an extraordinary image that is: the old and withered is transformed into the young and vigorous by the act of *consuming itself*. This image is known as the *Ouroboros* - the self-consuming serpent.

In this way the serpent is exactly akin to Life itself: lives perpetually come into being, they consume and are eventually consumed, and from this process of consumption new lives come again into being. *Nature regenerates itself by a perpetual act of self-consumption*. So the serpent is a symbol of the primal, regenerating energy of nature, a suggestion of the sex and violence nature requires for such regeneration, a reminder of our own instinctual need to *participate* in this Eternal Ritual.

The old world (still alive in the beliefs of the East) and the new world (characterized by the Christian West) have differing views on the serpent. What one thinks of the serpent (the primal, regenerating energy of nature) depends upon what one thinks of nature.

Civilization provides an isolating barrier between us and the harsh realities of the world outside. The old world was far more intimate with nature than we. To know Nature was survival: they knew it, honored it, and feared it. Any other philosophy was inconceivable - and suicidal. The primal, regenerating energy of nature was, to them, Divine Power incarnate in the animals, in the plants, in the soil of the earth, in the swirling wind of the sky, in the swirling water of the rivers. Nature was a sacred, life-bestowing Goddess; we can't really imagine the awe early people felt for Her and the cyclical periodicity of Her secret Plan for the world: something begins, endures briefly, and ends...only to begin again in new form. This is the Wheel of Time. It is the annual flood or monsoon, the rotation of the seasons, alternating night and day, the phases of the moon, the rhythm of a woman and its relation to birth and new life. It is the sun spiraling around the galaxy, the galaxy spiraling around the universe, and the universe spiraling around the Infinite Creatress who watches over it through the aeons.

The dominance of this "Cycles of Nature" religion lasted for thousands of years, until a man

\sim The Awakening \sim

from the Mesopotamian city of Ur, Abraham (c. 2000 BC), imagined an alternative view of time, and consequently, of nature and divinity. What if time doesn't go around and around, with things rising and falling, only to rise and fall again? What if the apparent cycles are actually contained within a larger *linear* motion of time? Time is not a wheel, but a direction the wheel is traveling: this is the *Arrow of Time*.

The world-shaking import of this idea can hardly be overstated, for it is now the philosophy of the entire modern world - the forward-looking, ambition-driven civilization that it was instrumental in creating. Abraham's revolutionary idea is basically this: If the consumptive phase of the cycle is not inevitable, then perhaps we have the capacity - through discipline, effort, and piety - to change our destinies. Perhaps our fate is not in the hands of nature, but is, rather, our own to determine. So if nature is not in control of us, and we are now in control of it, then divinity cannot reside in nature. Divinity must reside external to nature, external to space and time, in a transcendent domain. Through aspiration and achievement we might share in the glory of that Transcendent Paradise. And we will achieve our objectives by the conquest and subordination of that which is between us and the Place of God: nature.

And so, in the western tradition, the serpent became the architect of The Fall - primal nature luring us from the transcendent domain into the immanent. But that's another archetype, for another essay...

As I have said before, we should not quickly dismiss these ancient reckonings of things. There is no question that we know more about the mechanics of the world than they did, but even now we seek to find meaning and purpose in things. Meaning and purpose are spiritual questions, and every living faith on earth has its origins in a time well before recorded history. Christianity is an extension of Judaism, Judaism is an extension (in motif if not philosophy) of Mesopotamian spirituality, and the origins of Sumerian and Babylonian belief disappear into the impenetrable mists of distant antiquity.

Right or wrong, by virtue of our indefatigable

persistence in spiritual longing, we remain intimately connected to the Paleolithic shamans who invented this uniquely human quest. It is only the material component of the human experience that has changed in the last 20,000 years; the ethereal dimension of life is no different: The ancient reckoning of the *mysterium tremendum*, is *our* reckoning too...

There are many dimensions to serpent symbolism, most of which are not germane to the purpose of this essay (although I will address many of them in a later essay). For now, I have just one final observation to offer on the serpent: when snakes rest, they coil up into a spiral.

A few words on the Symbolism of the Dove

long with the Goddess, the spiral, and the serpent, there is one final element found on the earliest examples of human expression: the bird.

Early people must have looked skyward and wondered: "All things here are pain and suffering, all things here are challenge and strife, all things here are change and flow. Yet the stars do not change; if there is a quiet place of sanctuary from the violence of the world, surely it is there. If only I could be there, flying on the wind like a bird, up into the starry womb of night. I know I could find safety and refuge there. I know I could find peace..."

The bird is an obvious symbol for liberation, a breaking of the terrestrial shackles that bind us to the sorrows of life. Wings are the vehicle by which we might transcend this world, and attain new vistas, in new dimensions of existence. In time, the bird most often chosen to represent this longing came to be a white dove. White is the color of all light together, all the colors of the rainbow singing in one sublime symphony of celestial glory. White is undivided and undistorted by the colors of nature. It is purity, serenity, Divinity.

The ubiquity of this image in the modern world clearly demonstrates the enduring power of this symbol in the human imagination.

A Brief History of Symbolic Confluence...

▲ 2,000 B.C. - In the region that will one day

Landes, in France, a Paleolithic hunter carves a beautiful little head of a woman, known as the "Head of Goddess." This is believed to be among the very earliest examples of purely decorative ob-



ject-making - Goddesses were the first pieces of art. 20,000 B.C. - The practice of sculpting styl-

ized women has spread across Western Europe. One sculpture (known as the "Goddess of Laussel" also from France) shows an obviously pregnant woman standing. In her left hand she holds a crescent moon, upon which are incised thirteen notches. (Thirteen is the number of days the moon waxes to full, and



the number of days it wanes to new. With the addition of the three days of new moon, one achieves the duration of one lunar month: 29 days.) With her right hand she gestures to her swollen belly, demonstrating a knowledge of the association between the lunar cycle and a woman's reproductive cycle - of

the association between the self-recreating moon and the self-recreating womb.

18,000 B.C. - Sculptures of the Goddess start to appear in Eastern Europe. The famous "Venus of Willendorf" is carved in Austria. This profoundly pregnant female figure has upon her head seven curi-



ous circles - six concentric rings around a single central nodule. This is, perhaps, the first appearance of what will become a very significant feature in the mythologies of the world; it could be called the *Six around One* motif.

16,000 B.C. - Hunters on the planes of Sibe-

ria build a sacred site and decorate it with at least twenty Goddess figurines. With these figurines are small, carved plaques. On one side is a seven-whorled spiral; on the other, three undulating serpents - two of which possess seven curves. In the millennia that follow, the spiral motif





moves directly onto the little Goddess figures that feature so prominently in the sacred rituals spreading across the entire Eurasian land mass.

4500 B.C. - The Serpent Goddess of Life, Death, and Regeneration is first represented in Neolithic Crete. In early representations, she actually assumes the form of a snake; in many later representations she is portrayed in a womanly form and the energy of Primal Serpent Power is something that extends from and serves Her will. In a famous Minoan sculpture, She is shown standing straight, arms apart; in each hand She holds an undulating snake (and a bird on Her head). The motif of the Serpent Woman becomes one of the most popular in the mythology of the Medi-







terranean and the Middle East (and will one day be *entirely* mis-interpreted by a deluded genius named Sigmund Freud).

3000 B.C. - With the invention of writing come the first stories of the Goddess, and the first names: Isis, Ishtar, Asherah, Cybele, Inanna...

2500 B.C. - Small bronze plaques start to ap-

pear in Mesopotamia, upon which is seen the Tree of Life - the motionless axis of the revolving universe. The Tree has seven branch-



es. On either side are two Deities - one Masculine and one Feminine. And framing the composition are two serpents, each with seven nodal points, or bends.

2000 B.C. - A ceremonial cup of bronze

is made for the King of Lagash, one of the most important cities in ancient Sumer - the birthplace of civilization. For the first time the image of the undulating serpents and the image of the spiral come together in one image: two



intertwining serpents wind around the Axis Mundi, and cross at seven nodal points - *Six around One*. This new icon is soon associated with the God who cures all illness. This same image appears simultaneously in India.

1200 B.C. - The Feathered Serpent - Master

of Life, Death, and Regeneration - appears in Olmec civilization. This image evolves over the next 2000 years of Central American history to become, in Aztec



civilization, two feathered serpents winding around a vertical axis - again with seven nodal points.

1000 B.C. - With the addition of wings at the top of the World Axis, the image of intertwining serpents is adopted by Greece and, subsequently, the entire classical world: Rome, Europe, the Middle East, Egypt, and North Africa. It is known as the *Caduceus*, the Staff of Hermes/Mercury: guide of souls to the underworld, and messenger of the knowledge of Eternal Life.

200 B.C. - The Yoga Sutras appear in India, and the teachings therein spread across the sub-continent



and into China and Japan. The spiritual philosophy in these sacred books is called *Kundalini Yoga* - coiled serpent power. Kundalini describes, in elaborate detail, a *subtle* substance of body - in addition to the *gross* substance of flesh and bone - that coils around the spine in two separate "filaments". These two filaments - one of feminine energy and one of

masculine energy - cross at seven nodal points, or energy bundles, which are known as *chakras*. Three lower chakras represent a "penetrating" energy, three higher chakras represent a "receiving" energy, and these 6 chakras are bal-



anced by a mediating "heart" chakra between them - *Six around One*. The individual chakras are associated with specific elements (arranged on an evolving scale from profane matter to sublime spirit) that are believed to represent their essence: earth, water, fire, air, sound, light and thought. The chakras are also oriented to a heirarchy of essential human ambitions (again, arranged from the primal to the divine): survival, sex, power, love, communication, vision, and understanding. The objective of the yogi is to awaken the "primal serpent energy" dormant in the base of the spine, and bring it up - employing a complex process of meditations - through the seven successive chakras to achieve spiritual enlightenment

and knowledge of eternal life.

1650 A.D. In Europe, mathematician

John Wallis proposes that one complete rotation of a spiral helix become the symbol for infinity (and



eternity). It is quickly adopted by mathematicians, alchemists, tarot readers, Qabbalists, Rosicrucians, Masons, and other esoteric disciplines.

1800 A.D. The medical profession adopts

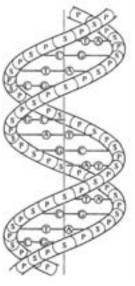
the Caduceus - and the closely related single twining serpent symbol of the *Staff of Aesculapius* - as its official emblem. This Paleolithic symbol of health and well-being, of nature and eternity, of life and re-



generation, is universally recognized as the definitive choice.

1953 A.D. At a medical lab in the United

States, Nobel Laureates James Watson and Francis Crick discover the structure of DNA (deoxyribonucleic acid), the fundamental molecular building blocks of all life on earth: the spiraling double helix is not a *symbol* of Life and Regeneration, it *is* Life and Regeneration. Furthermore, DNA consists of four primary nitrogenous bases (adenine, guanine, thymine, cytosine), a sugar



(2-deoxy-D-ribose), and phosphoric acid. That is, DNA is composed of *six molecules*, which are joined by the essential seventh component - a single, axial spine of hydrogen bonds - into a spiraling molecule of stupefyingly vast genetic potential - a potential that is perhaps infinite, like the symbol it so resembles. *Six around One*. And in silhouette profile, the DNA

molecule looks very much like an undulating serpent...

The Lunar Connection

here seems to be a tendency in nature to subdivide wholes into four parts. The are four Cardinal Directions, which corresponds, not only to our own anatomy (front and back, left and right), but to the geometric reality of life on a two-dimensional plane such as the kind we experience on the surface of the earth. There are Four Seasons, which corresponds to four - and only four - nodal points generated by the tilt of the earth's axis, and its revolution around the sun: Spring equinox, Summer solstice, Autumn equinox, and Winter solstice. The ancients saw four kinds of phenomena, which they called the Four Elements: earth, water, air, and fire. This corresponds perfectly with the scientific reckoning of the Four States of Matter: solid (frozen matter), liquid (super-heated solid), gas (super-heated liquid), and plasma (super-heated gas). (Actually, plasma is an ionized gas stripped of its electrons; however, this most abundant state of matter - 99% of all matter in the universe is plasma - is almost always super-hot.) The ancients also saw four personality types, which they called the Four Temperaments: sanguine, choleric, phlegmatic, and melancholic. This corresponds perfectly with the modern psychological reckoning of the Four Functions of Psyche: sensation, intellect, emotion, and intuition.

Such divisions into four are not artificial; they are real aspects of the world. It is, no doubt, because of this prevalent "fourness" in nature that we have chosen on many occasions to manufacture somewhat arbitrary four part divisions of a whole. Think of four-fold divisions like the four times of day (morning, afternoon, evening, and night) or the four periods of life (childhood, youth, maturity, and old age).

The first cycle understood by man was of course day and night, but at the dawn of the Paleolithic era 22,000 years ago, an awareness of the lunar cycle is demonstrated by the first appearance of lunar tabulation on little sculptures of the Goddess. In some pivotal moment in that distant epoch, a simple hunter had what must have been the world's first genuinely religious experience: "The regenerative cycle of the moon, and the regenerative cycle of the woman are of *equal duration*. The two are connected, somehow the same...as though the moon was a Divine Woman - a Goddess of Regeneration."

Just as a solar cycle consists of four seasons, the lunar cycle consists of Four Phases: coming into being (first quarter), being (full moon), going out of being (last quarter), not being (new moon). And the average length of each phase? *Seven* days.

Mysterious Number 7

abylonian Ziggurats had seven steps, as did the Temple of Solomon. The angle of the Great Pyramid is that of a seven-sided polygon. Rome was built on seven hills. The Tree of Life has seven branches. Six around One trunk that is the axis of the universe. The ancient symbol of the Trinity, Borromean Rings (three rings which mutually interlock precisely through their centers), has seven sections - Six around One in the center. There are seven stars in the celestial crown of the Virgin Mary, like the seven rays of Justice that shine from the head of Liberty. In Persia there were seven gates that lead to Glory of Mithras. Ishtar in Babylon and Isis in Egypt both passed through seven gates in the underworld to effect the resurrections of their slain husband-deities. In Zoroastrianism, there are the seven Immortals - six divine angels around the Creator, Ahura Mazda, in the center. In Sufism, the mystical aspect of Islam, it is said that Allah looks out into the world through the eyes of the seven Great Saints; and the saints are wise in the ways of lata'if, seven concentrations of spiritual power within the body that are explored through meditation. Buddha sought salvation for seven years before circling the Bodhi Tree seven times, thereby achieving enlightenment. The World Mountain has seven sides, each one facing one of the seven continents. In Tibet and Japan, the souls of the dead are said to tarry for 7 x 7 days before departing to distant, unknown realms.

The constellation Ursa Major (the Big Dipper), by which early navigators found the North Star - and thus their way home - consists of seven stars.

The ancients had a different, less-informed view of the structure of our solar-system. Their geocentric view reckoned seven worlds revolving around the earth: Mercury, Venus, Luna, Sol, Mars, Jupiter, and Saturn. We now know of course that they were entirely mistaken - nine (more or less) planets revolve around the sun - but this celestial appearance of seven was of enormous significance. From this perception of Seven Celestial Spheres came the idea of Seven Heavens (six outer heavens with the creator God in the center), and our reckoning of the week (six days of work around the Sabbath). *Six around One*.

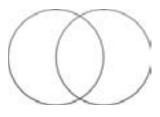
There are Seven Pillars of Wisdom, seven Wonders of the Ancient world, seven circumambulations around the Ka'ba in Mecca, seven Liberal Arts, etc., etc., etc... There are literally hundreds of examples and this is but a tiny sampling of the available list; surely there is no more venerated number than seven. But what is the origin of our persistent fascination with this number? Numerology and Sacred Geometry are somewhat arcane endeavors. Is it all ad hoc and arbitrary, or does a Sacred Number really represent some deep and genuine connection between the phenomenal world and a great mystery beyond? Are all our "lucky seven" inclinations merely a recognition of the sevenday phase of the moon? Or is there something else at work here - a numerological intuition of some larger truth?

There are six colors in the spectrum, and in union they generate the master seventh color, white. *Six around One*. There are seven tones in one octave of the diatonic musical scale (do-re-me...), and when the Pythagorean "spiral of fifths" (a method of dividing a musical string in successive 1/3 - 2/3 steps, by which the musical scale was first discovered) is extended for seven octaves, the full chromatic scale of twelve tones is revealed. We have five senses. And while the *taste* of a fine Bordeaux, the *smell* of a forest meadow, or the *touch* of a woman's breast may all be sublime sensations, we do not call such expressions of perfection art.

It is only through the senses of sight and sound that we experience art. And all the art we shall ever see or hear is a product of these two seven-fold realities: the spectrum of light and the octave of sound.

It is the mathematical and geometric properties of seven that are perhaps the most interesting. The ancients believed there were only ten numbers (as does our modern decimal system, for that matter); everything else is a mere repetition of the "true" numbers, but at a higher plane. And they knew that polygons of number contained within the "dekad" could be constructed with only three simple geometer's tools: stylus, com-

pass, and straightedge. By using the geometry of the *Vesica Pisces* (two equal circles which pass through each others' centers), the triangle (3 angles of 120



degrees), square (4 angles of 90 degrees), pentagon (5 angles of 72 degrees), hexagon (6 angles of 60 degrees), octagon (8 angles of 45 degrees), nonagon (9 angles of 40 degrees), and decagon (10 angles of 36 degrees), could all be drafted with perfect precision without protractor measurement of any kind. The conspicuous exception was the heptagon. The angle that specifies its construction is 51.42857142857... This infinitely repeating decimal means that only an approximation of this polygon is possible; it cannot exist with precision in the real world. Its infinite quality places it external to the world, in the transcendent domain of idea.

This Six around One motif is also our own personal experience of the 3-dimensional universe in which we live, a cosmos consisting of seven domains: six directions (up, down, forward, backward, left, right - as defined by three and only three coordinates at right angles to each other) and the center...where one stands and observes the world beyond. And, as has been observed before, this is a reflection of a geometric and eternal Truth: six circles of equal size arranged in a perfect circle exactly circumscribe a seventh circle of equal size in the center. The center circle functions like the master template for the six-fold, external domains beyond. The center is simultaneously the circumference, and the circumference is *made in the image* of the center...

The Seven-Year Cycle

T is said that the cycle of events in a human life runs seven years, in accord with the duration of time nature requires to replace every atomic particle in the human body. (According to this difficult-to-prove theory, by the end of a seven-year cycle, every electron and proton in my body has been replaced by another particle, and nothing of my former self remains; even life-long neurons in the brain are entirely remade from constantly wandering atoms, and so where then is the "me" that lives behind my eyes, if it is not in the material of which I am composed?) Each new seven-year period of life, so the thinking goes, will present different challenges than the preceding one. I'm certain that many lives are not in accord with this mysterious seven-year cycle. But mine is. Exactly.

Age 7 - I am given my first taste of real freedom and adventure: my parents give me a bicycle. Thus begins a 21-year relationship with broken bones and emergency-room nurses...

Age 14 - I enter this year with a boy's body weight of 80 lbs., and leave it - only 12 months later - with a man's body weight of 160 lbs. (my weight has not changed in the ensuing 30 years - although it's moved south a bit...). Now I can do some *real* damage...

Age 21 - I graduate from Art School, move out of my parents' house, venture out into the world, move in with my first love, and I do not have a clue what to do...

Age 28 - I suffer the last of an unfortunate series of serious injuries, and thus *ends* my relationship with the suture-and-plaster men. Perhaps I am meant to do something more *creative*...

Age 35 - I leave the mountain foothills I love, the landscape where I grew up, to find a new life with Elisabeth (a Veterinarian); she will take me to many flat and distant places, and it will be many years yet before I get back to my mountain home again...

Age 42 - I *finally* quit smoking (well, sort of), and also complete my *Mythic Naturalism* series of paintings and this book (well, sort of). In the years I have been pursuing this work, *not one gallery* was willing to represent these paintings ("landscapes *only* please") - although many galleries are indeed willing to sell the random hurlings of barnyard excrement (I sh!t you not). I can no longer face the humiliation of being artistically inferior to feces, and quietly retire to a simple life of landscape painting. (Well, sort of... Dammit! OK, I admit it, not much of significance happened to me when I was 42; but I'm optimistic for 49!)

A Sixth Sense?

re such seven-fold reckonings real, or are they manufactured by the mind? Many of L the interesting properties of seven would have been well known in Greco-Roman times, but adoration of seven is older by at least 15,000 years. Paleolithic hunters could not have known any of the mathematically mystical qualities of seven - and yet they did. How? And how could they sense that the regeneration of life was in some way connected to the spiral - the same spiral that was revealed only in my parents' lifetime to be the structure of DNA - the six around one molecule that is the regeneration of life? The caduceus is an unambiguous diagram of the mechanism of life the eternally self-regenerating double-helix - first made 4000 years ago! How in the world did those ancient mystics accomplish such a feat? There is some other mechanism at work here - a rare and poorly understood mechanism of the mind.

That Neolithic shaman "saw" something: an actual thing apprehensible by the mind, but invisible to himself, and unknown to everyone else. He didn't have words to explain his vision to his contemporaries, or the benefit of scientific literacy to explain his vision in a language that would make sense in our modern technological world; so he used the only tool of communication available to him: he drew a picture and said, "What I see *is like* this image I have carved on this rock."

There are modern equivalents to this kind of magical insight: Newton, Maxwell, Einstein, Heisenberg, and many others in the field of science, all had a sudden apprehension of a profound truth about the cosmos. But their "visions" were easily translated into the universal language of mathematics, and thus easily communicated to the many people conversant in that lexicon. The same cannot be said of all visions apparently, and thus we cannot easily confirm their veracity. But surely it is the same mechanism of mind that apprehends these numinous truths? If Einstein could venture out into the dreamscape and retrieve a little morsel of information like "gravity bends space," why couldn't our ancient hunter have done the same? I think he did. And not only did he retrieve that information, he invented a language to communicate it: we call it symbolism.

There are approximately one billion Christians in the world today, most of whom believe - in one form or another - that Christ was resurrected from the dead. This is an audacious claim. No one alive today ever met Christ. The men who wrote about his life (Paul, Matthew, Mark, Luke, and John), never met Christ; the earliest Christian documents, Paul's letters, were written about twenty years after the death of Jesus (if he truly lived; his existence is uncoroborated by any other document other than the New Testament), and the Gospels were written at least fifty years after that. These men never even met someone who met Christ. St. Paul, the first Christian missionary whose efforts literally invented the Church, claims to have met with Peter and other apostles; perhaps he did, but Paul could be a bit of a crank: he also believed that women should shave their heads (I Corinthians 11:3-10). Christian legend holds that that Peter dictated Mark's Gospel in a cave near Antioch ... or in Rome, or Mark wrote it in Alexandria after meeeting Peter elsewhere - but that's pretty flimsy scholarship to base one's history on. So here we have this spectacular historical event (it is claimed), and no one who saw it wrote it down, or even talked to someone who wrote it down. If we were talking about anything else, the whole claim would be summarily dismissed without further discussion. And yet, *one billion people believe this happened*. Why?

These special insights into the true nature of things are surpassingly rare. Apparently only very few are capable of this "meta-vision" (to see beyond the illusion). But when a true vision is retrieved and shared in some way, many other people recognize it as true - even if they have not had the vision themselves. A visionary returns to the world from "parts elsewhere", shares the vision, and it is accepted. Others can also "see" something in the symbolic language by which the vision is shared - we too can apprehend the Truth. So this meta-vision is a faculty possessed by most - if not all - of us, but in a latent, dormant form. What if we could awaken this sleeping part of our consciousness, activate this seldom-used additional sense of perception? What Truth would we see if we could focus our six senses to the contemplation of the Numinous One in the center?

What is the Nature of Truth?

Where the evening news each night: a politician retires to a Wall Street law firm and seven-figure salary, a labor union wants higher salaries for the rank-and-file, someone famous dies, two tribes - indistinguishable to everyone else in the world - consume themselves in a ritual bloodbath of mutual suicide, the local sports franchise loses game because they didn't play together as a team. This form of information that is received passively - by television, newspapers, word-of-mouth, or whatever - is *historic truth*. We should demand much more from Truth than such banality.

But there is another view of Truth: the view of the artist, the writer, the philosopher. Dante's *Divine Comedy* is Truth. Shakespeare's *Hamlet* is Truth. Beethoven's *Ninth Symphony* is Truth. Michelangelo's *David* is Truth. David's *Death of Marat* is Truth. Did Elliot's *Wasteland* actually happen? Is Coppola's *Apocalypse Now* a literal document of an actual experience? And if not, *are these men liars*?

But are not observations of the world such as the kind mentioned above more True than the evening news? Will they not speak to people across generations and geography? Is it the sexual perversity of the political class, or the sublime vision of William Blake that makes humanity greater than it was before? It's not that what happened on Wall Street yesterday is meaningless; but what meaning we ascribe today to yesterday's events will differ substantially from what meaning we ascribe ten years hence to yesterday's events. The dynamic universe obligates us to interpret past events *relative* to our immediate circumstances; truth, like everything in the Dominions of Chaos, is a pliable and evanescent quality. The Domain of Virgin Seven is something else entirely - something unachievably absolute ...

This seemingly nebulous form of information can be more potent, more poignant, and in some ways more important, than mere historic truth because it requires the active participation of the recipient to become manifest. This is *Poetic Truth*. Where rote fact tells us where we have gone, creative inspiration tells us where we must now go. To paraphrase a famous saying: History is easy; Poetry is hard. And poetry is not only hard, it is *beautiful*...

What is the Nature of Beauty?

Rowers bloom in the gentle golden light shining upon the morning meadow mist...and soon die. But that *quality* which they briefly possess *endures*. A blossom is a cloak Beauty fleetingly wears. Who is She, and where does She go, when the adornment falls away?

At the level of gross matter, the blossom is nothing more than a stationary carbon organism seeking to entice the complicity of a mobile carbon organism (bees and moths, etc.) - by employing the *compelling* qualities (like color and smell) of complex organic compounds - in its efforts to fornicate with another stationary carbon organism and thereby perpetuate itself. When we see the glory of the meadow in summer, we say that it is beautiful. And we think

 \sim The Awakening \sim

this beauty is highly evanescent: the winter will come and all beauty in this meadow will die. So the winter comes, and the gross matter of every blossom perishes. When we revisit the meadow in the Spring, we say that the beauty has *returned*. We understand that not even a single flower from the previous season survived, and yet it is *exactly* the same quality that the new meadow now possesses. Indeed She has returned, but where has She been during the long months of winter sleep?

There is a well-known riddle: If a tree falls in the forest but no one is there to hear it, does it still make a sound? The answer is simply this: the falling tree creates a physical disturbance as it falls, and this disturbance creates ripples of differential air pressure which radiate away from the epicenter at about 700 miles per hour. These ripples are sound waves. But sound waves are not sound. Sound is the perception of sound waves. Sound is a quality we bring to the falling tree. But in the case of sound, any perceiver in the forest will do: raccoon, bear, or sparrow. The same is not true for beauty. The bee cannot perceive the beauty of the blossom; it sees only a satiation of its biological imperative to feed. Beauty is a quality we - highly sentient and conscious beings - bring to the blossom. She requires our participation to exist in the phenomenal universe. There is meaning of cosmic import in this fact: of all the species on earth, only we are capable of recognizing such extraordinary patterns (seemingly separate elements bound by an ordered relation into a mysterious unity) which are woven into the fabric of natural laws, and subsequently into the nature generated by these laws. What possible function can such patterns serve? We must concede that such patterns are entirely superfluous without the possibility of discovery and recognition. Beauty unseen...isn't. The universe may seem capricious, but it is *never* superfluous. Why then pattern, if it was not intended - from the instant of its creation - to be seen and understood for what it is: an invitation.

She does not move; She waits eternally to be *discovered*...

Discovery

- divided by 7 = 0.142857142857142857...2 divided by 7 = 0.2857142857142857...3 divided by 7 = 0.2857142857142857...4 divided by 7 = 0.57142857142857...5 divided by 7 = 0.7142857142857...6 divided by 7 = 0.857142857...7 divided by 7 = 1.857142857...9 divided by 7 = 1.2857142857...10 divided by 7 = 1.2857142857...11 divided by 7 = 1.57142857142857...12 divided by 7 = 1.7142857142857...13 divided by 7 = 1.857142857...
- 14 divided by 7 = 2

Etc., ad infinitum...

Any non-whole divisor of seven will yield the same infinitely repeating set of *six* numbers (142857...) in the decimal expression of the remainder; six numbers forever revolving around the transcendent seventh number they seek to quantify. *Six around One*. Seven is unattainable, immutable, eternal. Its infinitude gives seven an otherworldly purity, hence its universal association with the divine dimensions of being forever beyond the grasp of the manifest world.

This explains the problem geometers had with the heptagon: the sides of the other polygons -3, 4, 5, 6, 8, 9, and 10-sided structures - will divide evenly into the 360 degrees of the circle; the 7 sides of the heptagon cannot. You might reasonably suppose that the 360 degrees of a circle is an artifact of human design; this is, of course, correct. If those ancient geometers had reckoned a circle to consist of, say, 210 degrees, we would then be able to draft a perfect 7-sided polygon. But all other polygons not consisting of a number of sides divisible by 7 would then be infinite: we would only be able to measure 7-sided angles! All our buildings would have 7 sides, instead of 4. There would be no cardinal directions, because we could not measure four-ness. Mariners would never find their way home, and without the requisite trade and exchange of ideas, civilization would never begin. Twelve-based geometry is far more versatile than seven-based geometry, and *that* is why it was chosen. Seven-ness or Twelve-ness. You can know one or the other, but not both. As with the ratio of a circle's circumference to its diameter (the irrational number *pi*: 3.14...), or of a fundamental particle's position and momentum, we are presented here with an irreconcilable paradox: what very much appears to be a unity in nature is in fact a duality, and one half of this apparent unity does not exist in our universe. If twelve-ness is the proper way to reckon the dimensions of the universe - and it is - then *where* is seven-ness?

Such beautiful symmetries of relation are a timeless and eternal Truth of Nature, an Inviolable Fact, older than the universe and waiting to be discovered. And how is it discovered? By action. We - *that which moves* - must be brought into resonance with Truth - *that which does not move*. Truth cannot venture to us; it is we, rather, who must bring ourselves into alignment with Truth. And we achieve that resonating alignment by action, by seeking the knowledge that changes *us*, so that we might know more of *that which does not change*...

The Awakening

Cannot claim to have the same penetrating insight as those to whom I have referred in this essay. But I did have a fleeting apprehension of something numinous beyond the veil. This image *is like* what I saw:

The rising sun shines through the Gates of Eternity - a single mighty portal that rests upon six gold-capped columns. The perfect alignment between the sun and the Portal indicates a celestial reckoning - in this case, the Spring Equinox. The land beyond is obscured by a misty wood; it is an impenetrable boundary beyond which lies the Source of Existence. It is through this Gate that Life enters the world, through this Doorway that She will come...

An Apparition emerges from the mist and approaches the Gate. Without hesitation She crosses the threshold between dimensions and enters a world lost in a dark and frozen sleep. Instantly, the world is transformed. Her gown of blue and green - like a confluence of Heaven and Earth - is swept around Her by an unseen spiral energy, and She compels the dormant potential of nature to respond in like fashion. Her beauty flows out into the world like a river, gently gathering the sleeping things of the world into Her swirling current. The Boundary seems to fade as the world melts into Her, and this Union of Realms begins. In the wake of Her embrace of the world are 60 lotus blossoms of creation - 60 for the seconds and minutes that are blooming once again after having slept in timelessness for so long. Around Her is a luminous aura, in Her hand She holds a glowing blossom, and Her presence in the world generates waves of nourishing light that wash over the winter desolation to awaken the Spiral of Life. Upon this great helical aurora fly seven doves - one for each molecular component of the genetic alchemy they herald. And with the doves fly 180 butterflies - 360 fluttering wings of transformation spiraling heavenward into the swirling sky: one gossamer wing for each degree of rotation in the great spiraling cycle of Life and Evolution.

And in the foreground, as the celestial coils of the Goddess elevate the world to a new season of the living experience, the icy coils of the terrestrial serpent - the consuming Dragon of Winter - quietly unwind to recede and disappear into the vanishing night...

Maya

e perceive the world through our five senses, and try to find order in - make sense of - those perceptions by the use of the four functions of the psyche. But our thoughts and perceptions of the world - which is, of course, all we can ever know about it - *are not the world*. The exterior world is something fundamentally different - and fundamentally unknown to us. All that we know is contained in the mind, *isolated* from the world beyond it. It has been the objective of wise men and women, for the entire history of our species, to find a way to bring the mind into *direct* contact with the world.

There is a figure in Tibetan Buddhism known as Tara - from the Sanskrit root *tri*, which means to cross or traverse, and also to liberate or escape. She is a divine apparition of gentle loveliness who will deliver us from the shackles of our fears and desires, from the illusion that is our thoughts and perceptions of the world, from *Maya*. The word Maya comes from the Sanskrit root *ma*, which means to construct or display. We encounter Maya in three different ways:

1) Maya is the Veil that hides the essential nature of things from conventional perception.

2) Maya is the Transcendent Will that generates the veil of illusion.

3) Maya is the Meditative Way by which this illusion may be penetrated and Truth revealed.

There is a Buddhist saying: Of all the forms of maya, the World-Illusion, woman is supreme. And yet, through Her beauty we have come to apprehend something other: There is the silent winter that waits for renewal by the efflorescent Spring. There is the dark night that waits for liberation by the illuminating Dawn. There is an aged generation of Life that waits for the re-generation of new birth and growth. There is a lonely soul that waits for completion in union with the love of another. And sleeping in the gaseous husks of dead stars lives the beating, coalescing heart of a celestial embryo: the raw material for new stars and new worlds, and thus the promise of new life and new evolution. In some distant epoch 80 billion years hence, even the vast, spiraling universe must wind down and finally stop. But perhaps the structure of time itself - like all the things of the universe carried in the flow of its irresistible current - is a great spiraling cycle: with every ending there comes a new beginning, compelled by a Will beyond knowing.

I know that I am asleep; but perhaps awareness of sleep is also an awareness of *Awakening*...

* * *

Personal notes on The Awakening

saw a small stone bridge crossing over a pool of water in the forest; *The Awakening* came to me - very nearly complete - in a sudden flash of inspiration. My initial inspirations are not always detailed: *The Return* first came to me as nothing more than twelve dim lights surrounding an iridescent thirteenth in the center. But this time it was all there: the Gates of Eternity through which shines the sun, and the Goddess of Spring/Dawn walking across the water as the cold and darkness recede from Her.

Mythologically speaking, Spring and Dawn are equivalent: both are that part of the Wheel of Time which ends the period of sleep and heralds the transformation and renewal of the world. I immediately recognized this component in my vision, but I saw other things too - in unusually specific detail. She wore a swirling gown with a strange sloped neckline, held an auto-luminous blossom to Her breast, and with Her other hand made the "boon-bestowing" gesture (familiar in Buddhist iconography and in my work). And trailing from Her boon-bestowing hand was...*rose petals*?

I have come to trust these visions - even when I don't know what they are meant to represent; I know at least part of their meaning will become clear in the fullness of time. And so I made a few preparatory sketches of my vision, and then moved on to other projects. Months passed, and a beautiful day found Lizzy and I spending the day in Waterton National Park. We were wandering through the forest looking for a nice place to have a picnic, when we came into a clearing that looked ideal. Lizzy moved into the sunlight and, suddenly, hundreds of little purple butterflies rushed up around her from their hiding place in the tall grass.

My mind had been on more recreational matters, but when I saw those fluttering specks of glowing color, my vision came back with renewed vigor: they were not rose petals at all, they were butterflies - archetypal symbols of transformation - swirling around the Goddess in a Great Helix. Even the Gown made sense: the sloping neckline and swirling gown were visual reinforcements of the spiral aspect of the Goddess that motivates and generates the Spiral of Life and Regeneration.

It wasn't that I found a better visual solution that I preferred: I had a spontaneous vision, and I saw

it *wrong*. Only with a subsequent vision, *of the same thing*, was I able to correct my earlier misinterpretation. But how can something that doesn't yet exist be seen wrong? This seems to suggest a pre-existing and external reality to this image. I had spiral design elements in the composition before I consciously knew that there was to be a helix of butterflies. I also had several *Six around One* elements before I knew any history of its relation to the spiral, or of its intimate connection to DNA. How could I know what I did not yet know? If this were a randomly generated hallucination, an artifact of my imagination and nothing more, how could it possess a counterpart (of which I was not yet cognizant) in both the tangible world of microbiology and the intangible world of mathematics and geometry?

And then there's that chthonic ouroboros in the ice at the bottom. I drew and painted only an arm of ice receding away from the advancing figure, intending the shape to echo the helix shape I had established with the butterflies. I included a little whole in the ice (I thought) only to break up the monotony of the surface texture. About 14 weeks passed between the time I drew the ice on the blank linen, and the time I painted it. It was only at the end of the day when I painted the ice, when I was leaning back to scrutinize my efforts that I saw it: the serpent, jaws open as if in the act of consumption. You have no reason to believe me - I can offer no evidence - but I know *I did not put that serpent there*.

I believe that a transpersonal part of me (which is a transpersonal part of all of us) knew what to do where I did not: some part of that Paleolithic hunter-shaman still wanders restlessly in the ancient caves of the human unconscious. How such a thing can be, no one knows; by what mechanism such knowledge is transmitted, no one can say...

Postscript

Tt's not really relevant, but I could hardly include this image and not mention the strange real-world events that briefly surrounded it in 2001. The New York Times ran a story about an allegorical novel by former dictator of Iraq, Saddam Hussein, which was being studied by the CIA for any possible insight into the thinking of the unpopular leader. The story included the cover art of Mr. Hussein's novel - which was, imagine my shock, *The Awakening*. I certainly did not authorize such use of my work; nor did anyone from the Office of the Dictator contact me with any such inquiry. I suppose what happened is that someone at the government publisher found the image on the internet, Saddam (who had a predilection for fantasy art) approved its use, and thus it found its way onto the cover of more than 1 million copies of the best selling book in Iraqi history (although it seems that his favor-seeking sons may have purchased most of them).

I was interviewed by dozens of news agencies from all over the world, including the New York Times (which, as Noam Chomsky says, *is* the news). For one day, I was on the cover of every newspaper in Canada; I even made the national evening news on TV. It was fun to be in the media spotlight for...15 minutes.

Advice from several lawyers confirmed my initial assessment that legal action was impossible. I don't know much about the law, but I certainly had not heard anything about courts of the world being clogged with the cases of millions of people with a complaint against Saddam. And it was fairly obvious that my grievance was rather small compared with the many others that could be made.

Saddam is now gone (President Bush owed me a favor and, well, the rest is history...), his theft

of my work all but forgotten. And so what remains for me is an absurd, ridiculous story about an infamous tyrant who liked the work of an unknown painter of peaceful, mysterious women.



