### AN ENTANGLED DREAM SERIES: FRAGMENTATION, WHOLENESS AND THE COLLECTIVE UNCONSCIOUS

Judy B. Gardiner

ABSTRACT: Based on an experiential dream series this consciousness study shapes a theory that the fragmentary nature of dreams seeks wholeness deriving from the Collective Unconscious. As dreams evolve from a microscopic-personal worldview to a macroscopic-transpersonal dimension, concern for survival of self is augmented with concern for survival of the species. Entangled dream imagery provides cues to quantum functions actualized through the tutelage of departed scientific luminaries. The intentionality, specificity, and information input experienced in the communications imply that the collective unconscious and quantum cognition are an integrated structure revealing an underlying methodology.

KEYWORDS: Bohm, cognition, collective unconscious, dream, entanglement, intuition, light, memory, quantum phenomena, vision

This paper is based on a collaboration between Dr. Montague Ullman's empirical research on the relationship of quantum features to dreaming and this author's\* experiential research study in dreaming/waking consciousness. Principal assumptions in this complementary research were:

- the existence of a network in which quantum aspects reveal an underlying unity in dreaming consciousness
- quantum cognition guided by intuition
- the collective unconscious embodied in the dream state via the presence of four historic figures of science.

 $<sup>^{\</sup>star}$  Note that herein "this dreamer" and "this author" are used interchangeably. Dreams and dream fragments are italicized for clarity.

Quantum features exhibited in the study suggest quantum entanglement and quantum coherence rooted in the superposition principle (shared states) and quantum technologies such as teleportation and cryptography.

### MONTAGUE ULLMAN ON DAVID BOHM

Montague Ullman, M.D. (1916–2008), a psychiatrist, neurologist, parapsychologist and founder of the Dream Laboratory at the Maimonides Medical Center in New York, known for his scientific research in monitoring REM-sleep and ESP, as well as his articles and books translating dream consciousness theory into practical applications for the individual. In 1974 he moved the dream out of the consulting room and into the community of dreamers themselves. By providing dreamers with tools to orchestrate and translate the symbology of their own dreams, he brought about a gradual shift in dream ideology and an upsurge in popular interest in dreams. While teaching what is now popularly known as the "Ullman method," he honed his theories on the nature of dreaming and waking consciousness. This effort led him to physicist David Bohm's implicate order of wholeness that included a theoretical melding of levels of consciousness.

Following are paraphrased passages from Ullman's final paper: *The Dream: In Search of a New Abode*: [1]

In search of answers to questions about dreaming consciousness, "I have sought help beyond my own field of psychiatry." The last ten years of the twentieth century was known as the decade of consciousness. Quantum physicists began to focus on "the hard problem" (Chalmers, 1995)—namely, the connection of consciousness to its underlying neurophysiological substrate. With only few exceptions, however (Wolf, 1994; Walker, 2000; Eccles, 1953), the focus was exclusively on waking consciousness. Quantum theory was so successful in the light it shed on all its applications to the world of matter, perhaps it could bring us closer to an understanding of the relationship of mind to matter. The problem was that no one understood the strange features that came with it. These included its indeterminism, the wave-particle duality, the jump an electron makes, the measurement problem, and finally, non-locality, where a signal goes faster than light.

These puzzling features of quantum theory suggested an analogy to the nature of dreaming consciousness. My comments will be limited to complementarity, the contextual linkage of the observer and the observed, non-locality and interconnectedness.

### Complementarity

Niels Bohr (1961) sounded a clarion call when he related the general concept of complementarity to quantum mechanics and other disciplines.

The wave-particle duality of quantum theory provides a classic metaphor. Complementarity, the hidden unity of opposites, is an apt term to describe the dual nature of consciousness. Awake, we are in the particle mode facing a world of discrete objects. Asleep and dreaming, we are coping with the internal resonant wave-like feelings seeking to embed themselves in symbolic imagery. Both states, while experienced in qualitatively different ways, are derivative of a unity. Both are necessary for a complete description of the individual; to the extent that one is in focus, the other is not.

#### The observer and the observed

Quantum mechanics has brought to the fore the interrelatedness of the observer to the phenomena under observation. This is known as the "measurement problem" and is still a very mysterious aspect of quantum theory. We become, as Wheeler has noted, participatory observers in the world around us. The quantum features of an experiment are determined by all the aspects of the experiment including input from the observer in determining the end-result. There is something quite analogous to this when we are dreaming. Awake, our observing egos interact in ways that are at times coherent with the underlying reality of our situation and at times are not. We are either emotionally engaged or not. Asleep and dreaming, there is a radical shift in the observer role. The reality that now comes into view is spontaneous and unsummoned. We remain an observer but are now observing a scenario not of our own conscious making.

There is, in effect, an actual merging of the observer and the observed as the dream context unfolds. Freed of temporal and spatial constraints, having a causality of its own, the feeling residues of the waking context come into full view in a metaphorical narrative. By changing our focus asleep we change the "measurement" arrangement and arrive at different views of a unitary entity.

### Nonlocality

The term non-locality refers to the instantaneous transfer of a signal through no known physical means. Non-locality at the quantum level has been subject to experimental proof but remains a baffling mystery. At the macro-level, as cited in dreams, it has been supported by experimental work in parapsychology and also remains a mystery.

We do strange things with time and space in our dreams as we press them into metaphorical service. In the case of time the instantaneous condensation of past and present might be looked upon as a kind of subjective non-locality. The paranormal dream, on the other hand, suggests the possibility of an objective non-locality by spanning across space in the telepathic dream and across time in the precognitive dream. The information picked up is literally or symbolically depicted in the dream. At an anecdotal level Louisa E. Rhine (1961) has noted that dreaming seems to favor the occurrence of telepathy over waking consciousness. [2]

### INTERCONNECTEDNESS

Here there are three strands that seem to cohere, if only by analogy. The first strand is the assumption that quantum connectedness applies to the universe as a whole. This view has gained support with experimental proof of non-locality and as a basic feature of quantum mechanics. The second strand is the view of Barlow (1980) who wrote:

Consciousness is not a property of a brain in isolation but is a property of a brain that is and has been in communication with other brains.... I shall suggest that consciousness ... is Nature's method of making humans behave cooperatively.

This implies that consciousness, awake or dreaming, is contextual in nature and that we lose sight of this in our assumption that it is our unique gift to do with as we want.

This brings us to the third strand. Awake, the capacity to love is the most coherent way of relating to a given context. When that capacity is impaired, self-healing processes are set in motion similar to the efforts at repair when a bodily system is damaged. Dreaming consciousness as a natural healing system exposes impediments to connectedness and explores the coping resources available.

Capturing the basic tenet of his work, Ullman often stated: "We are in need of a politics of connectedness."

### Towards a new abode

If we were to consider Bohm's implicate order as a Universal Unconscious, what would it contribute to our understanding of the nature of dreaming? Broadening the unconscious in this way extends dreaming to a much wider range of content than we usually consider. Dreams point outward as well as inward, to include events usually considered outside the range of our dreams such as the cataclysms of nature as well as telepathic and precognitive dreams.

In considering Ullman's analogy of quantum theory to the nature of dreaming consciousness what follows is a compendium of my own experiential studies in dreaming-waking consciousness.

My explorations began in 1993, contemporaneous to the parallel research of Dr. Ullman, yet a full decade before we discovered each other's work. My own consciousness studies which over two decades evolved into a dream series, shaped a theory that the fragmentary nature of dreams seeks wholeness derived from the collective unconscious. Revealing insights into the interconnectedness of light and vision, matter and spirit, and time and eternity, the syntax and coding of dreams as a fragmentary language is examined as it relates to aspects of quantum theory.

Based on insights resulting in a shift from personal to transpersonal dreams, it characterizes interaction of the collective unconscious in the symbolic language of the dream. As we evolve from a microscopic-personal worldview to a macroscopic-transpersonal dimension, in ascending to a higher consciousness we augment concern for survival of self with concern for survival of the species. Thus, the term "cosmic dreaming" was born and the roots of global consciousness became visible. The distinguishing features of our individual and collective destinies as illustrated in this dream series reveals the dream's ability to recognize self and world as participants in a totality.

According to Jung, [3] a relative degree of certainty is reached only in the interpretation of a series of dreams, where the later dreams correct the mistakes we have made in handling prior dreams and the basic ideas and themes can be more readily recognized.

### PERSONAL TO TRANSPERSONAL DREAMS

The distinction between personal and transpersonal or cosmic dreams maintains that personal dreams are more emotional and subjective, often dealing with latent issues in the dreamer's life. Conversely, cosmic dreams tend to be more objective, informational and concrete.

As the personal dream highlights ego-centered issues and flaws in our individual character structures, as well as assets we are not using, the cosmic dream is able to recognize a personal issue as a holographic sliver of our universal concerns. In this case, attributes of this dreamer's mother transmogrified to those of Mother Earth. This effected a paradigm shift in her dreams, from individual to global issues, diminishing focus on the mother-daughter relationship and amplifying humanitarian concern for the great Mother Earth.

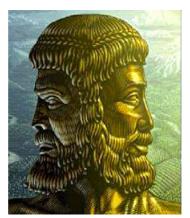


Image 1

Like the two-faced Roman god, Janus, who looked in opposite directions simultaneously, our dreams observe two landscapes at once: a familiar personal world on Earth and an unseen cosmic world in the Universe. To put it another way, we could say the dreamer perceives a local and a nonlocal view in tandem.[4]

Ullman and Gardiner presume that all dreamers have this Janus-like bidirectional potential revealing that dreams can also look both backward and forward simultaneously, time past and time future. Precognitive dream warnings were validated by earth's current upheavals; retrocognitive dreams were reminders of the breaking apart of Pangaea millions of years ago.

Integration of dreaming/waking consciousness in Bohmian terms, unfoldment and enfoldment in implicate/explicate orders, illustrate a significant spike in transcendence beyond a self-world view. Emotional healing and expanded intuitive intelligence realized in transpersonal dreams can be viewed as portals to personal transformation. Consequently, transcendent dreaming opens to an infinite spectrum in which agape, oceanic feelings of connection to the universe, forgiveness, and the necessity of global healing become paramount.

### DREAM ENTANGLEMENT

Subsumed in the strata of dreams, fragmentary thought is often embedded in imagery as well as in lengthy dream narratives. Entangled in a quantum system, repetition and connectivity of dream images and themes demand connectedness.

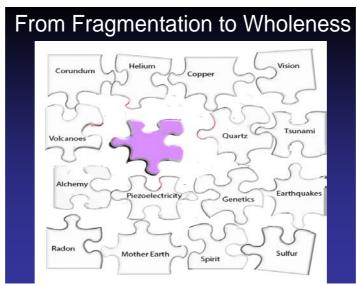


Image 2

A vital message for the earth and its inhabitants beginning with light and vision, progressed to geology and chemistry. The above image reflects a sampling from many hundreds of puzzle pieces. In 1993 the piecing together of a monolithic puzzle began. An early dream (4/13/94) transmits the word "corundum," an aluminum oxide, conveying "a new order or paradigm" linked to the word "conundrum." A riddle with a pun in the answer, conundrum sparked a quest toward interconnectedness, wholeness, quantum cryptography, and in lay terms, hidden variables. Metal was a leading clue, but conundrum remained a puzzler to the end.

Entangled in what would develop as a scientific avalanche were cosmic particles of the legends of the world—clues, as it were, to the spiritual dimensions of human life. Among such legends, dreams enfolded Perceval and the Holy Grail, Osiris, Andromeda, the Rosetta Stone and the Emerald Tablet symbolizing light, vision, and the mysteries of matter, energy, soul and spirit. Commingled were dreams of the Australian Aboriginals Dreamtime, the Upanishads, and the Rosicrucian legend.

### THE COLLECTIVE UNCONSCIOUS: SUPERPOSITION - SHARED STATES

Beneath a blanket of fragmentary thought slept clues of four "Mentors"— historical figures of science—and their venerable contributions. Their collective message was one of dire concern for the earth and survival of humankind. Populating this author's dreams with unfamiliar scientific jargon, these departed tutelary spirits mentored in a

range of disciplines including optics, light, astronomy, geology, chemistry, and neuroscience. Subsequent research validated earth-related material.

Over time the spirited team of four mentors appeared to have separated into pairs or shared states of two pair of entangled particles, rather than those of split waves of a single particle. By a "pair," I refer to two scientists whose disciplines were related, but viewed from a different perspective through their own unique lens. The pair would then constitute a shared state. Following is a portrait of mentor pairs and a glimpse of associated science fragments. Their shared states in due course supported this dreamer's conceptual reasoning that the collective unconscious may be the overseer.

Galen and Ptolemy: Vision and light

The first pair of second-century Claudiuses, Galen and Ptolemy, served as mentors of vision and light.

Claudius Galen, revered physician, theorized a direct path of light rays to the optic nerve and posited that psychic pneuma and sunlight transform to an instrument of the soul residing in the brain, [5] thereby contemplating the existence of soul and the union of body and spirit.

Two consecutive optic nerve dreams (11/11/94) served as catalysts for all that would unfold. The first, an image of a key ring, accompanied a message that, "The same key fit all six apartments, but no one knew it." There were, however, only five images of keys in the dream—identified by this dreamer as the five senses. What was the sixth? It was invisible. Following the key ring image was an announcement from a deceased astrologer friend that the optic nerve was a breakthrough for mankind. The keys to the five senses echoed Galen's theory that one cerebral pneuma acts for each sense organ. [6]

Repetitive dreams of *upside-down* objects manifested at distant locations where physical objects of the dream images were right-side up. Upside-down dreams appeared to point to refraction, where the images on the retina get flipped upside down; the optic nerve then sends electrical signals to the brain which flips the images right-side up.

Reversal of images; upside-down in dreaming, right-side up in waking, called attention to the optic nerve. This trend, ostensibly shared by Galen and Ptolemy, interconnected with dreams related to the speed of light, the optic system and the brain. Similar upside-down images involving the electromagnetic field, bandwidth and wavelength led to James Clerk Maxwell's conclusion that light itself is an electromagnetic wave, pointing to dreams of the earth's atmosphere and wavelengths of electromagnetic radiation.

Claudius Ptolemy—celebrated astronomer, one of the first to write on refraction of light from celestial bodies—believed, as did Galen, that the pneumatic system was subject to a controlling faculty in the brain. Ptolemy, symbolized by a dream image of a grid of lights—a cluster—a way to communicate, linked to Ptolemy's Star Cluster, or M7, consisting of eighty distant stars easily detected with the naked eye. A word/number puzzle concealed in a dream (2/14/97) transmitted "OPTICO, pages 16-21." Ptolemy wrote five books entitled OPTICA, one of which dealt with the refraction of light from celestial bodies. Years spent searching pages 16-21 for the aha! moment proved fruitless. The page numbers ultimately revealed an essential piece of the mentor's message for the earth: chemical elements in the earth's crust or atmosphere, i.e. sulfur, chlorine, argon, potassium, calcium, uranium—elements later associated with Marie Curie.

Ptolemy's charge in the study was optics, not chemistry. The dream, in its infinite wisdom, combined the two: optics (light) and chemistry masterminding the overlooked faculty of inner vision—seeing the unseen through the mind's eye.

This convergence of the visible and invisible was a defining moment in detecting the imperceptible, as every chemical element corresponding to pages 16-21 was virtually invisible. The light of consciousness companioned with vision turned chaos to order in readiness for sighting geology and chemistry.

### Steno and Curie: Geology and chemistry

Nicolaus Steno, 17<sup>th</sup> century geologist/priest and mentor whose principles led to the Geologic Time Scale, was beatified in 1988 for his efforts to bridge science and religion. Known today as the Father of Geology, his work was introduced in a dream featuring *a steno pad* (dictation), *a colorless rose* (quartz), and *a pole* followed by wideranging geologic referents, behaviors, mechanisms. Steno's study of quartz led to the Curie brothers' discovery of piezoelectric properties in quartz.

Marie Curie, 20th century scientist and chemistry mentor, coined the term "radioactivity." Her Nobel Prize-winning discoveries of radium and polonium were reflected in dreams of *sulfur*, *uranium* and multiple gases merging with countless metals including *bismuth* and *curium*—clearly linked to Curie. A weird combination of "*pizza*" and other fragments led to the revelation of Curie's use of piezoelectric techniques for measurements of radium preparations.

### THE ILLUSION OF FRAGMENTATION

David Bohm wrote:

[...] the word 'health' in English is based on an Anglo-Saxon word 'hale' meaning 'whole.' That is, to be healthy is to be whole. [...] Likewise, the English 'holy' is based on the same root as 'whole.' All of this indicates that man has sensed always that wholeness or integrity is an absolute necessity to make life worth living. Yet, over the ages, he has generally lived in fragmentation. [7]

A dream series was the ideal template. Disordered images swarmed the study. To name some: *terrycloth*, *vents*, *a chair*, *lavender*, *yellow*. At this juncture dreams were on the threshold of the personal entering the realm of the cosmos where science and spirit would become indivisibly entwined.

In examining the mind-bending entanglement of pictures and words in an effort to determine which images matched which scientists, it became clear that a structure was in the offing. Resembling the network patterns postulated by Fritjof Capra, [8] an inseparable web of relationships developed between the imagery, the scientists, and their sciences.

### THE ARCHITECTURE OF WHOLENESS

The first step towards solving the dream-puzzle was to group fragmentary dream images and chemical elements scattered over an academically forbidding field of sciences. The next step was to match the most appropriate science to the element in question.

Geological behaviors and mechanisms were entangled with *spinning disks*, *disintegration*, *microscopy*, *alchemy*, *angular momentum*, and, as noted, ancient legends of the world. It was chaos theory at warp speed.

Thus began the grouping of endless dissimilar but repeating fragments.

A pattern identified the theme of Mother Earth and related sub-themes. Dreams of continental drift evoked Pangaea. Images of the earth's crust and tectonic plates conjured a collective symbol of fragmentation.

"Birth mother" became the cue words connecting with myriad Earth fragments transforming to Gaia and creating the first non-separable entity: Mother Earth. Fragmented images in bizarre and inappropriate birth mother dreams containing breastplates, mother's floors, veiny body parts interweaved with plate dreams: a buried plate, roots on a plate, X-ray plates, plates on the ground. Thus a second non-separable entity was produced: Tectonic Plates.

### QUANTUM COGNITION AKA VISUAL ASSOCIATIVE RECOGNITION MEMORY

Nelson and McEvoy have recently begun to consider the "spooky-activation-at-a-distance" formula in terms of quantum entanglement:

The activation-at-a-distance rule assumes that the target is, in quantum terms, entangled with its associates because of learning and practicing language in the world. [...]Research reveals that "associative entanglement causes the studies' target word to simultaneously activate its associate structure. [9]

With the aid of visual associative recognition memory, in this entangled dream study the sense of word and image recognition activated by repetition and connection, was prompted by visual cues and memory.

### VISUAL ASSOCIATIVE RECOGNITION MEMORY

- Visual memory stores cue words and images
- · Recognition associates new with previous cues
- Memory network retrieves previous cues automatically encoding them when activated by a corresponding word or image
- Entangled state occurs when two words or images become associated within a new context
- Cue words or images organize into non-separable entities or themes simultaneously activating the entire associative structure
- Memory forms an interrelated web of relationships

### Image 3

Continuing to unravel the mystery of the dream, the interrelatedness of the sciences and their constituents had become part of a whole and a progression toward comprehending the collective message. Together with linkage of geologic behaviors, various stresses and chemicals were examined and causal sequences studied. Projected in this blueprint was the mentors' overarching concern for the sustenance of the earth and the species. The following chart reflects an associative structure organized by dream symbol, translation and scientific referent:

Associative Structure			
Lavender	Lava Under	Volcano	
Pizza/Andi	Piezo/Andesite Piezoelectricity (electric charge - volcanic rock)		
Butterfly	Sulfur (dioxide)	Volcanic gas	
	Metal sulfides	Sulfide mounds - tubeworms	
Urine/Waste	Uranium	Radioactive decay	
Alchemy	Transmutation	Geochemical interaction	
An alchemical transmutation occurring in the earth			

Image 4

### VIRTUAL NON-LOCALITY

Synchronous events occurred outside of time and space. As this dreamer's perspective of a larger worldview expanded, synchronous activities grew exponentially. The more she did see, the more she could see. Dreams connecting with waking experience were a hallmark of the time- and space-transcending aspects of cosmic dreaming. When remembering a dream from five years ago and linking it to a current event or dream, the time frame in which the past dream occurred appeared to move itself into the present to make the connection. This shift in time and space reveals that each present moment is an amalgam of all times: past, present and future illustrating that we dream not only of the deep past, but can also foreshadow the future.

### QUANTUM CRYPTOGRAPHY

A systematic logic in relation to the overarching message triggered a sense of advancing toward something not yet known. Telegraphic transmission via encrypted messages evolved into methods of decoding dreams beyond their usual metaphorical value.

The word "steganography" derived from two Greek, words—*steganos* meaning "covered," and *graphein*, meaning "to write" or translate to "secret writing." Greek characters below replaced "On the Function of the Parts of the Body," Galen's description of the structure of the eyes and process of vision.

# In his treatise Xo '9\O \omega' \omega' \omega \omega \omega' \omega' \omega' \omega \omega' \

### Image 5

A dream (9/11/00) of a WORD-KEY cryptogram emerged: *It all centers on a hole.* "WORD" is code for the key. This was decoded to mean: the Word is in the Whole.

The computer frequently changed fonts by reducing, enlarging, bolding, expanding, altering the font or changing color to correspond with the message.

A QUANTUM DREAM STUDY IN TIME AND SPACE: TELEPORTATION  $\sim$  MORPHIC RESONANCE

It's almost as if distant particles of a given color had 'known' they had a common destiny.

~ David Bohm

### Image 6

In the following model a chair assemblage contains years of repetitive dream fragments which actualized as a whole on a ramshackle back porch in a distant location. I suggest an analogy of dream fragmentation to quantum theory in that energy resides in small but discrete units, as do dreams.

This portion of the study raises questions of teleportation and/or morphic field resonance. Two quantum particles have recently been teleported simultaneously for the first time by physicists in China. This bears resonance with the overall study. [10]

Biologist Rupert Sheldrake has summarized the key concept of morphic resonance as being:

...similar things influence similar things across both space and time. The amount of influence depends on the degree of similarity. [...] Most organisms are more similar to themselves in the past than they are to any other organism. [...] self-resonance with past states of the same organism in the realm of form helps to stabilize the morphogenetic fields. [11]

Dominant particles of *lavender* and *yellow* were entangled in images ranging from a *lavender x-ray apron* to household objects to *lavender flashes of light. Lavender* decoded to "lava under." *Tellow* developed as a *butterfly* (sulphur family: Pieridae), a *stone* (Yellowstone), a slab, as in the earth's crust, with the pale yellow of sulfur taking the lead. Identified in the dream, "Success Wake Lake," Alert Bay, Vancouver Island would be the "common destiny" where Bohm's distant particles of color—*lavender* and yellow—materialized.

Time: 18 mos. Dreaming to waking manifestation Distance: 5600 mi. Dreaming: New York

Waking: Placentia, Newfoundland, Alert Bay, Vancouver Island

Image 7

The colors appeared separately in Newfoundland and collectively a year later in Vancouver.

The chair collage below was one link in a connective membrane of an ordered scheme in form and formlessness, in waking and in dreaming. Dream fragments connected as one unit far from home, as though they had a memory.

# DREAMING: SUCCESS WAKE LAKE

## WAKING: ALERT BAY



Image 8

<b>Dream Fragments</b>	<u>Symbols</u>
• Lavender Chair	Lavender: lava under
	Chair: Latin: cathedra, Seat
• Bowl	crater
• Dirt inside bowl	earth
• Dead greens in bowl	dead vegetation under the earth
Yellow fire hydrant	dousing of flames

Image 9

#### WHAT WE CAN LEARN FROM THE MASTERS

Analogous to superposition and shared states in quantum terms, dream fragments symbolizing two pairs of ancient figures of science transmitted knowledge of their earthly disciplines with the purpose of imparting grave concern for the planet.

Galen and Ptolemy taught optics and light; Steno and Curie taught geology and chemistry. Had the mentors dispatched this mélange of fragments as a means of illumination on multiple levels? Entangled in their collective communication were aspects of quantum theory: cognition, teleportation, cryptography, superposition and shared states, like well "hidden" variables waiting to be found out.



Image 10

In quantum terms, might the dimensions of life and death be unified as well?

Had this study created a mingling with minds that had followed a like study in some other age, and these minds still saw, and thought, and chose? [12]

Rupert Sheldrake's concept of morphic resonance and of collective memory inherent in nature complements our understanding of the Jungian collective unconscious:

The collective unconscious only makes sense in the context of some notion of collective memory. This then takes us into a very wide-ranging examination of the nature and principle of memory, not just in human beings and not just in the animal kingdom; not even just in the realm of life, but in the universe as a whole. [13]

### CONCLUSION

The effort to connect and reconstitute myriad dream fragments analogizes the nature of our illusory perception of a fragmented world, calling to mind the dream of the conundrum—a riddle with a pun in its answer; a new order or paradigm. Consider the new paradigm one of consciousness, the perception of a single reality shown in many different views—wholeness realized in fragmentation. Indicative of quantum cryptography, Greek characters electronically replaced a line of text with five omegas. This told the story of the archetypal mother, the Great Mother Earth—the convergence of the material and the spiritual into a superconsciousness described by Teilhard de Chardin as the Omega Point. In shifting from biological evolution to conscious evolution, dreaming may advance us toward the Omega Point—the portal to global awareness.

In this associative network of dreams, consciousness led to convergent vision, the ability to merge the invisible with the visible, to integrate dreaming and waking across time and space. The diagram below proposes that consciousness navigated by memory is endowed with light and vision, upon which Galen and Ptolemy conjectured and hypothesized nineteen centuries ago, and the vehicles through which Steno and Curie collaborated in their teachings of geology and chemistry. From a quantum theoretical point of view, this research may reveal how various structures of nature emerge out of an underlying ground, Jung's unus mundus or "one world."[14] That ground is illustrated in the diagram below, where consciousness, memory, and the collective unconscious are symbiotic and mutually connected in a feedback loop.

Top-down: Consciousness—Collective Unconscious—Memory Bottom-up: Memory—Collective Unconscious—Consciousness

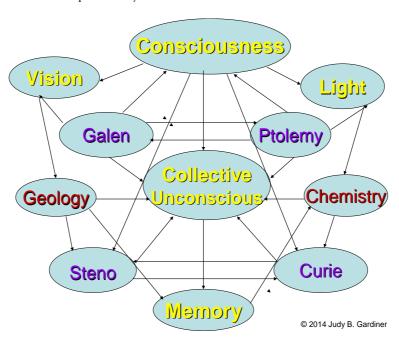


Image 11

This dream study in time and space distinguishes the collective unconscious as the breathing apparatus from which all else emanates. Inspired by the pneumatic philosophies of the great masters, this research implies that the collective unconscious generates an infinite psychic pneuma, a cerebral spirit, a divine spark—perhaps the substance of the world soul that birthed interconnectivity of each and every entangled fragment, the mentors, and their sciences.

judy.cosmicdreaming@gmail.com Cosmic Dreaming http://www.cosmicdreaming.com/

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