Earthrise: Decoding the Speech of the Planet

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Abstract

If Earth were a sentient non-human being trying to speak to us, how would we decode the message?

As the paradigm of modernity—a "Big Machine" worldview of reality as subject to linear operations of interlocking parts—continues to give way to a more comprehensive, systemic, "Deep Web" understanding of the cosmos as alive and participatory, forms of knowledge abandoned by modernity rise to the surface once again. One of these is a view of the world as animated, sensitive, and reactive, a pre-industrial view held by all our indigenous ancestors and by certain later alchemists, naturalists, and poets uninvested in mining and consuming a world of supposedly dead matter.

This essay proposes to "listen in" on the depths of nature by combining what Goethe developed as an "exact sensorial imagination" with depth-psychological methods of symbol amplification. This allows us to interpret natural events like storms and earthquakes as meaningful symbols: non-verbal, imagistic words in the vocabulary of animate Earth.

By using these tools to listen deeply into the natural occurrences unfolding around us, we stand a better chance of discerning through the instrument of a newly sensitized imagination the primal forces and currents that shaped human intelligence and continue to interact with it.

Earthrise: Decoding the Speech of the World

We spend years in learning a human language--can it surprise us that we are very slow in penetrating the language of living forms?
—Adolf Portmann (1954, p. 353)

...What we have here is a de-sacralization of the natural world and natural man....a season of some 3,000 years of institutionalized violence against Nature. Yet it has never totally triumphed. Nature comes breaking through, creatively, all the time.
—Joseph Campbell interviewed by Costis Ballas (Joseph Campbell Collection, 1985, p. 3)

If the world is not satisfied by our going through it, no matter how much beauty and pleasure our souls may receive from it, then we live in its vale without love.
—James Hillman (2006, p. 74).

This beautiful place defaced with a crop of suburban houses—
How beautiful when we first beheld it...
As for us:
We must uncenter our minds from ourselves;
We must unhumanize our views a little, and become confident
As the rock and ocean that we were made from.
—Robinson Jeffers (1965, p. 102).

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Introduction: “Talking About the Planet”

In the famous Power of Myth interview with Bill Moyers, Joseph Campbell was asked near the end of his life whether the image of Earth photographed from space might inspire new myths. Campbell replied that it might, although myths are no more predictable than dreams. However,

> CAMPBELL: ...The only myth that is going to be worth thinking about in the immediate future is one that is talking about the planet, not the city, not these people, but the planet, and everybody on it. And what it will have to deal with will be exactly what all myths have dealt with - the maturation of the individual, from dependency through adulthood, through maturity, and then to the exit; and then how to relate to this society and how to relate this society to the world of nature and the cosmos...But the society that it's got to talk about is the society of the planet. And until that gets going, you don't have anything.
>
> MOYERS: So you suggest that from this begins the new myth of our time?
>
> CAMPBELL: Yes, this is the ground of what the myth is to be. It's already here: the eye of reason, not one of nationality; the eye of reason, not of my religious community; the eye of reason, not of my linguistic community. Do you see? And this would be the philosophy for the planet, not for this group, that group, or the other group. When you see the earth from the moon, you don't see any divisions there of nations or states. This might be the symbol, really, for the new mythology to come. That is the country that we are going to be celebrating (Campbell & Moyers, 1991, p. 41).

Although Campbell believed that no single myth could contain human experience gone planetary (Keen, 1971, p. 35), here he seems to have meant a new mythos for our time: not a single mythic telling, but an underlying meta-story to furnish collective psychic structure for “how to relate this society to the world of nature and the cosmos.”

Although this essay follows up Campbell’s prediction, to delineate a mythos for one’s time would have to involve the work of many people busy from the ground up. My own project

will limit itself to proceeding from Campbell's hint about an Earth-centered mythos to discuss a perception-shifting idea residing deep in a cultural blind spot: that the natural world and the human unconscious speak the same symbolic language. If this is demonstrable, then we should be able to tune in on at least some of the "speech" of nature, matter, and Earth.

To prepare ourselves for this demonstration, we will begin by confronting a widespread anthropocentric belief of our time--that mindfulness resides only in human beings--with the long, recurrent, cross-cultural tradition of animistic encounter with lively matter. With our way clear for reimagining nature and Earth as systemically reactive if not ego-conscious, we will find out what tools are available for listening in on the heart of things and learn what happens when we do.

Eradigms in Collision

The word "animism" refers to the habit of pre-industrial people to perceive nature and Earth as alive and enspirited. Coined in the early 1700s by Georg Ernest Stahl, physician to King Frederick I of Prussia, animism to him meant the idea that all things were ensouled. (He got the idea for the word from anima mundi, "world soul," a cosmic image inhabiting Neoplatonism as well as symbol systems from the dawn of history.) For anthropologist Sir Edward Tylor, however, "animism" meant the primitive and childish notion of the world's aliveness as held by hunter-gatherers (Tylor, 1871/1924). The word has kept this meaning despite an impressive post-colonial literature (for example, Huhndorf, 2001, Glendinning, 1994, Brody, 2001, and Smith, 1999) debunking the increasingly obvious eurocentrism tainting our ideas about how earth-based humans live .

Before examining alternatives to a view of the world as inanimate and dumb, we should understand more about the background of this view. As far as we can tell, nobody held it until the recent historical past. How did it arise into dominance?

It could be argued that the first systematic psychological splits between self and world, inner and outer, conscious self and unconscious Other widened during the Agricultural Revolution, when the land was first thought of as a resource to exploit (Chalquist, 2007). Most of what we think of as "civilization," including centralized power, hierarchical management, urbanization and sprawl, institutionalized religion, organized warfare, and masculinist control

sprouted along with those early monocropped fields. In time these developments gave rise to the long age of empires that lengthened into an age of nation-states since the Treaty of Westphalia.

Nevertheless, most of our species retained vestiges of ancient beliefs in Earth as a sacred domain until the Scientific Revolution and the Age of Exploration joined hands to conquer a disenchanted world five hundred years ago. Monotheisms promoted by powerful clerics and priests who disparaged this world's reality even while accumulating earthly power set the stage for the Galilean and Baconian triumph of third-person inquiry. Life and nature were to be held firmly at a psychological distance by the underlying fantasy of science purged of subjectivity.

To make sense of this huge sweep of historical change, I sometimes ask my students to try thinking in terms of "eradigms": worldwide paradigms organized around a central archetypal image. Carolyn Merchant (1990) has given a name to the first eradigm of which we have any knowledge: the Organic, which reaches from the mists of prehistory into the Agricultural Revolution and coincides with the Paleolithic and Mesolithic periods. At this point it slowly gives way to the Celestial Eradigm of the ancient feudal period, with its overarching equation of Sacred with Up (divinized male leaders, rising spires, hilltop fortresses, and punitive sky gods). With the Scientific Revolution underway, the vertical emphasis gave ground before the all-consuming horizontality of worldwide conquest over dead matter: a Big Machine Eradigm of progress and collective might.

Because rising human populations and advances in communication technology spread each eradigm faster than the previous, the fourth, a Deep Web (or Network) Eradigm that cracked the Machine around 1910 with field theory, quantum mechanics, liberation politics, and depth psychology, has already begun to crest, its emphasis on interconnected nodes of contact evident in the literalized World Wide Web no less than in Joanna Macy's conception of the Great Turning away from the industrial growth model of civilization to the future life-sustaining society already here in experiments going on around the once-verdant globe (Macy & Brown, 1998. We could imagine these shifts in eradigms as rites of passage requiring the collective psyche to develop new capacities while relinquishing old ones. What Richard Tarnas noted about great epochal transformations in the Western mind seems to apply worldwide: each is initiated by a kind of archetypal sacrifice (Tarnas, 1991).

Fundamentalisms appear as eradigms end because people caught in and psychologically fused with familiar modes of thought and habit resist changing them and fight to avoid doing so.

We should avoid confusing fundamentalism with traditionalism. A medieval Christian might never have come in contact with a worldview different from his own. By contrast, fundamentalism reveals a frantic and ultimately hopeless struggle against acknowledging cultural and religious differences flourishing on every side. It requires walls of disavowal and denial to which the traditional believer never needed recourse.

As the Big Machine model of reality grinds to a halt, its inability to do justice to the participatory and systemic aspects of personal and ecological reality becomes increasingly clear. Scientists and philosophers fused with the reductive mechanical worldview respond to its inadequacies by erecting dogmatic bulwarks against alternative viewpoints. Examples include the roadshow genotheism (and now memotheism) of Richard Dawkins, the growing refusal to print social science papers lacking numbers and academic jargon, the replacement of humanities education with standardized testing that pits students against each other, the subversion of Philosophy of Mind by a scientism so radical it denies its own subjectivity, the near-total silencing of deep psychology by shrill calls for more "scientific" studies on "human nature," the handing over of entire economies to decisions made by computer "projections," and the ceaseless replacement of sustainable small-scale farming with resource-wasting agribusiness.

Why has such a destructive and disenchanting worldview endured for five centuries? Lists of technical achievements aside, perhaps species too pass through developmental phases: infancy, childhood, adolescence, adulthood, old age. Eradigms do not line up neatly with such phases, or with the implied developmentalism of philosopher Jean Gebser's levels of archaic, magic, mythical, mental, and integral consciousness (Gebser, 1986); eradigms represent colorings in of the collective mind rather than steps up an evolutionary ladder. But the omnipotence, hubris, and grandiosity of so much empire-sized Big Machine thinking seems to reflect an adolescent need to differentiate oneself from home and hearth. (The resistance of the industrialist who refuses to grow food naturally can carry a sharp snideness reminiscent of, "I can do this without Mom's help!") Certainly the spread of monocrop agriculture and its resulting technologies and values gave humanity its first truly cosmopolitan world civilization. Big Machine destructiveness could be a warning sign of overdevelopment rather than maldevelopment, and a temporary reaction against the oncoming challenges of border-dissolving Deep Web maturation.

Be that as it may, below every dominant eradigm or mythos runs an underground river of human experience incompatible with what C.G. Jung referred to as "the spirit of this time" (Jung, 2009, p. 229). The sense of a world ensouled has proven one of the longest-lasting currents of all.

Sentient Matter

The earth-flattening march of the animism-denying Big Machine eradigm did not eradicate all perception of Earth, nature, or matter as sentient. Where this relationship did not survive in uncolonized corners of the planet, or in esoteric Buddhist, Shinto, and Hindu traditions, it did in folklore and myth: witness the sprites and dryads, naiads and mermaids, selkies and Nessies, orishas and lorelei of many lands and countless tellings down throughout oral history.

Nor did the academy eradicate it. Ovid, Cicero, Seneca, Plotinus, and Posidonius all wrote about an animate Earth. Plato's image of the World Soul (found in the Timaeus) enlivened conversations through Neoplatonism and its Academy in Florence, through Naturphilosophie and Romanticism, and through Goddess movements down to less cosmically spacious Gaian art and Earth reverence.

Alchemists sought for millennia to reveal the aliveness hiding within matter. One was Paracelsus, who called this principle of aliveness the Archaeus. Arche, a root of "archaeus" as well as of "archetype," was for ancient Greek thinkers the first principle of nature, animating the cosmos and providing the substance and potency from which the gods arose. Kepler linked the Archaus with the anima terrae, the soul of Earth (Pauli, 1955). C.G. Jung connected mana, an indigenous expression of matter's energetic aliveness and spiritual power, to the ancient belief in a spirit of place on the one hand--a belief found in every culture at every time, even ours--and to modern notions of psychic energy on the other (Jung, 1970).

In philosophy the tradition of panpsychism, for which organizations of matter displayed what we would now call systemic/experiential properties, received the more recent name of "panexperientialism" in connection with Whitehead's work (Griffin, 2008). It has also been known as pansensionism and hylozoism. Such a perspective is neither vitalism (identified by Whitehead as a dualism) nor anthropomorphism; Teilhard de Chardin, for example, wrote about subjectivity as an ubiquitous dimension, a "within of things" (1976). For Whitehead, one of

many thinkers who rejected the materialist premise of mind emerging miraculously from mindless things, we commit the Fallacy of Simple Location by taking reality for isolated bits of matter disconnected from each other (1979).

Other major and minor philosophical thinkers convinced of the mindfulness of nature include Pythagoras (according to Cicero), Heraclitus (according to Diogenes Laertius), Thales, Empedocles, Anaximander, Anaximenes, Anaxagoras, Plato, Plotinus, Numenius of Apamea, Ammonius Saccas, Posidonius, Paracelsus, Gottfried Leibniz, Baruch Spinoza, Wolfgang Goethe, Giloramo Cardeno, Bernardino Telesio, Francesco Patrizi, Marsilio Ficino, Giordano Bruno, Tommaso Campanella, William Gilbert, Julien LaMettrie, Denis Diderot, Johann Herder, Arthur Schopenhauer, Samuel Taylor Coleridge, Friedrich Schelling, Henry More, Margaret Cavendish, William James, Charles Peirce, John Dewey, Eugene Wigner, D'arcy Thompson, Paul Carus, Manfred Eigen, G. Spencer-Brown, Friedrich Paulson, Morton Prince, Ernst Haeckel, Eduard von Hartmann, William Clifford, Rudolf Lotze, John Muir, Aldo Leopold, Samuel Butler, Morton Prince, Charles Strong, Ferdinand Schiller, Samuel Alexander, Peter Ouspensky, Leonard Troland, Archibald Wheeler, Durant Drake, Wilhelm Reich, Owen Barfield, Alfred North Whitehead, William Montague, and, more recently, Rupert Sheldrake, Charles Hartshorne, David Ray Griffin, Christian de Quincey, Freya Mathews, Galen Strawson, David Abram, Charles Globus, Baird Callicott, J. McDaniel, Tim Sprigge, Susan Armstrong-Buck, J. O'Brien, Stephanie Lahar, Val Plumwood, and David Skrbina (2005).

Thinkers whose work speculates about panpsychism include Democritus, Aristotle, Francis Bacon, Nietzsche, Kant, Thoreau, Josiah Royce, Alexey Koslov, Henri Bergson, Bertrand Russell, Albert Schweitzer, Gregory Bateson, Wolfgang Pauli, Arthur Koestler, Roderick Nash, and Herbert Feigl.

What about scientists? Here we have biologist Pierre-Louis Maupertuis, Joseph Priestley (discoverer of oxygen), William Herschel (discoverer of Uranus), Nicolas Copernicus, Ernst Mach (magnetism), Emil du Bois-Reymond (nerve conduction), inventor Thomas Edison, astronomer Sir Arthur Eddington, evolutionary biologist Sir Julian Huxley, biologist J.B.S. Haldane, physicist Sir James Jeans, physiologist Sir Charles Scott Sherrington, biologist W.E. Agar, systems biologist C.H. Waddington, physicist A. Cochran, physicist Freeman Dyson, anesthesiologist Stuart Hameroff, and physicist David Bohm.

Johannes Kepler, the astronomer and mathematician who described the orbits of planets around the sun, regarded Earth as ensouled (anima terrae), with grass and trees for hair, sulphur for excrement, and rainwater and springs for sweat and urine; flooding meant that the planetary soul was ill (Pauli, 1955). Hoping to thwart both atheism and atomism, Sir Isaac Newton pushed beyond the mechanical framework of theory to search for the animating principle of matter, a principle he referred to as "vegetable spirit," "fermental virtue," and "Magnesia" (Chalquist, 2009). Gustav Fechner, founder of psychophysics (physiological psychology), wrote about Earth as a single organism, a view pushed out of the scientific community until William James revived it:

> Most of us, considering the theory that the whole terrestrial mass is animated as our bodies are, make the mistake of working the analogy too literally, and allowing no differences. If the earth be a sentient organism, we say, where are her brain and nerves? What corresponds to her heart and lungs? In other words, we expect functions which she already performs through us, to be performed outside of us again, and in just the same way. But we see perfectly well how the earth performs some of these functions in a way unlike our way. If you speak of circulation, what need has she of a heart when the sun keeps all the showers of rain that fall upon her, and all the springs and brooks and rivers that irrigate her, going? What need has she of internal lungs, when her whole sensitive surface is in living commerce with the atmosphere that clings to it? – paraphrasing Fechner (James, 2006, p. 79).

Atmosphere scientist James Lovelock did not mention soul, but he did call his idea of Earth as a self-adjusting system "Gaia Theory."

Naming the self-redesign of living systems autopoesis, Maturana and Varela (1991) chart cognition all the way down to the most primitive sensorimotor interactions with an environment. Sewall Wright, one of the geneticists who combined biology and evolutionary theory into "the modern synthesis," theorized that consciousness was inherent in matter; his colleague Bernhard Rensch, an evolutionary biologist, agreed that atoms and subatomic particles exhibit proto-psychic qualities (how else to explain where higher forms like self-awareness come from?). According to biologist Martin Heisenberg, even fruit flies, bacteria, and molds exhibit behavioral

output independent of sensory input, indicating self-direction and self-initiated behavior (2009). In 2010, a study led by James Collins, professor of biomedical engineering at Boston University, found that bacteria resistant to antibiotics sacrifice themselves by producing indole, a chemical that supports the weaker members of the bacterial group (Lee, H. et al, 2010).

Given its long and illustrious history stretching back before recorded history, why has the thought of a world alive and reactive been forced so recently into cultural unconsciousness? In part because industries of the Big Machine would not run smoothly over a world defended as sensitive to what is done to it. Just as Descartes' argument that animals have no souls gave aid to the unrestricted hunting practices of his day, so our belief in matter as dead allows its conversion into pollution, devastation, and waste. Both scientism and religion agree at least on this: that Earth is raw material for exclusive human use.

At a deeper level, recognition of nature's needs and powers puts an unpleasant check on unlimited egotism and grandiosity. The war waged against subjectivity by Bacon and Galileo might well represent an underlying terror of consciousness wherever found: the body, the community, insects and animals, landscapes and ecosystems now under siege by agriculture and mining.

What if we decided instead to explore the possibility of subjectivity pulsing everywhere, flashing forth in a code we can decipher and receive? "We have nothing to lose but our mind-body problem" (Griffin, 1998, p. 91.)--and a worldview that even in its breakdown enables displacement and destruction while isolating human selfhood from its original source of apprehension.

Psyche's Symbolic Speech

Andries Hoek was a Dutch physician working with hypnosis in The Hague. Starting in 1850, Hoek and a remarkable patient, 22-year-old Rika van B, began fashioning the first truly cathartic and relational method of psychotherapy.

Beginning by telling Hoek her life story, the patient saw him daily for 11 months in lieu of entering an insane asylum. During this time she often whispered directions for treatment that he carried out faithfully. At the height of her symptoms, which included convulsions, dissociative episodes, raving, depression, and suicidality, she imaginally relived the death of her uncle's servant. He had drowned, a childhood trauma pathologically repeated when her fiancé

committed suicide by drowning. She had blamed herself for these deaths, but after retelling and reliving them, her symptoms disappeared. In fact, over the next two years Hoek often relied on Rika's judgments about the assessment, diagnosis, and treatment of other patients, but in 1853 she left for the East Indies to start a family (van der Hart & van der Velden, 1987).

In 1885, Pierre Janet published a paper on his patient "Leonie" (Ellenberger, 1970). Trained in philosophy and medicine, Janet worked in the hospital in Le Havre, France on an approach to treatment ("psychological analysis") that interpreted symptoms as dissociative expressions of "subconscious" trauma. He also sought to manage the "rapport magnetique," the patient's emotional focus on the doctor (known later as "transference"). Like Hoek and Rika B, Janet observed how traumatic events replayed symbolically until they were understood and healed. In 1895, Sigmund Freud and Josef Breuer touched on this psychic symbolism in their Studies on Hysteria. By 1900, when Freud published his monumental The Interpretation of Dreams, attention to symbolism informed the core of psychoanalytic work.

Because the symbolism of symptoms, fantasy images, and dreams functions as a nonverbal language, care must be taken in decoding it. Janet had used automatic writing for this. Alfred Adler looked for hints of the inner story people tell themselves to make sense of things. Freud's method of free association invited patients (and analysts) to speak whatever came to mind in relation to a symbol and thereby uncover its unconscious etymology. Criticizing this procedure as arbitrary (the associations can lead anywhere) and ideologically restrictive (interpretations tended to obsess over childhood preoccupations with breasts, penises, feces, lust, and rage), Jung recommended the procedure of active imagination: engaging the symbol inwardly to let it come to life and speak its truth. Although this too attracted its own interpretive pantheon at first (e.g., persona, shadow, anima, animus, Wise One, Self), analysts using Freudian, Jungian, and other approaches have broadened the interpretive lexicon considerably over decades of clinical research.

Depth psychologists have also realized that the symbolic activity of deep experience does not confine itself to symptoms and dreams. What we know as conscious mental life, with its concepts and abstractions, chatter and theory, rests on a layer of mostly unconscious fantasy, image, metaphor, and motif: a poetic basis of mind, as Hillman (1975) puts it. This imaginal dimension received abundant description by Plato and Neoplatonism, William Blake, Avicenna, Marsilio Ficino, Giambattista Vico, Henri Corbin, Gaston Bachelard, Gilbert Durand, and Jung,

among many others throughout cultural history (Hillman, 1983). “The mind is in the imagination rather than the imagination in the mind” (p. 15): one reason that novelists, dramatists, artists, naturalists, and poets reveal such rich, deep wisdom about human nature in comparison to academic textbooks on psychology or research on minds from outside. Like phenomenology, depth inquiry starts from inside consciousness, the origin of all our perceptions and speculations, instead of reducing it to something less than itself.

To refuse to go out of one’s mind means taking the complexity of its images and motifs as primary data. Depth psychology assumes that these imaginal structuralizations of psychic reality make cognition and its theories possible to begin with. Even data carefully culled within an Apollonian fantasy of objectivity must find itself framed, as within this sentence, by fundamental operating metaphors.

Other fields that explore the symbolic and metaphoric structure of mind include somatic psychology, with its sensitivity to the meaning of how the body presents itself (see how your shoulders and back feel the next time you are emotionally overburdened), and the cognitive linguistic work of George Lakoff and Mark Johnson, who find evidence that “higher” faculties like human reason are built out of basic metaphors rooted in the body and its sense of its surroundings:

> As human beings, we have no special access to any form of purely objective or transcendent reason. We must necessarily use common human cognitive and neural mechanisms....We use a reason shaped by the body, a cognitive unconscious to which we have no direct access, and metaphorical thought of which we are largely unaware (Lakoff & Johnson, 1999, p. 7).

How we live in the world and what neural architecture we carry shape the categories we use. In the human case (every living thing must use some schema for selection to survive) the categories rest upon metaphorical prototypes, which is why human language is packed with ups and downs, highs and lows, insides and outsides, and other reminders of lived embodiment. No disembodied reason hovers helpfully about our heads to tell us about a world we are not separate from after all.

Images, metaphors, symbols, themes: these bring order and plotline to the flux of human consciousness. What might be their counterparts in the natural world in which we evolved?

Nature's Primordial Patterns

Students of permaculture, the nature-mimicking design of sustainable human habitations, are asked to look around for recurrent patterns and shapes in the natural world. Finding curves, edges, meanders, spirals, branches, and nets below, above, and around us, we think about what these do--nets to structure and enclose, meanders to distribute flow, branches to channel and spread, spirals to cycle, gather, and refine--while marveling at Nature's ingenuity in building up a cosmos out of such simple forms that form the subtext of the indigenous sense of place (Abram, 1997).

Born from this ingenuity, we can reflect on its economy of expression: globes and veins outside as well as inside; the word "dendrite" refers to "tree." Grown over the trunk of the brainstem over evolutionary time, our cerebral hemispheres have branched steadily upward, layering and laminating like a Montezuma Cypress or a head of broccoli or brain coral.

If you were to drip water straight down the center of a freely revolving waterwheel from above, you would observe it turning with apparent randomness one way and then the other, reversing itself unexpectedly no matter how regular the stream descending on it. If you recorded the number of left and right turns, it would even out, but only as an average of uneven turn intervals: six left, ten right, five left, three right....

Graph the number onto a coordinate plane, however, and something orderly appears: mathematical threads representing turns woven into the Mobius strip of an infinity symbol. Placed on its side, the figure stares back at the observer like eyes cut in a mask. From random-seeming spins has emerged an unexpectedly orderly form--unexpected, that is, to a Big Machine mindset in which non-accidental order remains a human imposition on nature's mindless chaos.

Until recently, science lacked tools for studying the order hiding within nonlinearity. Irregularities teeming all around us were jammed into ideal Euclidean circles, boxes, and triangles. Reality's jagged edges were smoothed over by the estimates of linear equations. From the bounded logic within the Big Machine paradigm, this type of research made sense: beyond being achievable, it applied mechanistic investigation to what was regarded in advance

(fundamental metaphor!) as the world's machinery. Surfaces, planes, and objects came under human control; the rest was left for later.

Later arrived with the development of differential equations, mathematician Edward Lorenz, and his studies of atmospheric convection in the early 1960s. The "shapes" he saw are referred to now as "strange attractors" derived from nonlinear charting of chaotically varying quantities. These attractors are examples of fractals: relatively simple forms like ice crystals and river branches that repeat themselves (iteration) into ultimately incalculable complexity. "Fractal" was coined in 1975 by Benoit Mandelbrot, who noticed that markets varied unpredictably and that coastlines and other irregular forms could not be accurately measured. A fractal looks the same regardless of the scale of magnification. Each part, portion, or segment resembles the whole, as with capillaries, veins, and branches.

Living complexities organized around basic, repeating archetypes feeding flows of information endlessly back on themselves to fashion new patterns from well-tried forms: this seems to be how the creative mind of Nature prefers to think.

As for maintenance:

When complex planetary systems eventually wear out, their dissipative structures reach the brink of chaos, at which point the system redesigns itself (autopoesis) or falls apart. A tornado displays an awesome example of structured forces held temporarily in balance by drawing energy from its environment. A spiral descends and reascends, and local meteorology self-stabilizes. It could be that life itself represents a dissipative structure balancing itself on the brink of perpetual destabilization.

Most evolutionary biologists insist that evolution exhibits adaptation rather than progress. Even so, as systems of life evolve, some of them attain increasingly complex capabilities for the expression of consciousness. Zoologist Adolf Portmann believed that, similar to great works of human art, the surfaces of animal bodies possessed a representational value beyond natural selection. Whereas internal organs tend to be similar within a species, visible organs--a particular zebra's stripes, the curve of a particular antelope's horns, the shape of a particular goat's beard--communicate an animal's essence, style, or inwardness beyond what purely empirical considerations can detect (1954, 353-54).

Recent research on animals reveals a wealth of social, cultural, and psychological behavior: rats who feel empathy, whales who collectively elaborate symphony-length songs,

dogs who warn their humans of imminent mishaps, even elephants and ravens that mourn the death of loved ones (Bekoff, 2007). Chimps teach each other sign language. Dolphins, elephants, and gorillas recognize themselves in a mirror.

If we gaze into the mirror they hold up for us, do we behold only what is strange and alien? Or might we discern signs hinting at a common language of symbols arising from the body and mind of Earth?

Tuning In: Goethe's "Delicate Empiricism" and Jung's Amplification

> Natural objects should be sought and investigated as they are and not to suit observers, but respectfully as if they were divine beings.
> —Johann Wolfgang von Goethe (Matthaei, 1971, 57).

Having summarized his thoughts about animal forms, Portmann wrote about discovering in nature the possibilities of an "underlying order":

> They are clearly revealed when we study the supraindividual complex of relations that unites natural forms, constructed to be perceived, with the structure of the perceiving organ--that, for instance, integrates into a higher unity the color of a flower, its shape, and the eye that perceives them. In ever increasing measure, the living forms of our earthly flora and fauna bear witness to the existence of mysterious laws, to forms not directly accessible to us, and to their modes of action (1954, p. 369).

Sounding a bit like an alchemist of old, Portmann then suggested that the study of myths and symbols and unconscious dream life might be fruitful for revealing this wider system. He might not have known that a highly disciplined forerunner of such an approach had already been crafted and tested.

Johann Wolfgang von Goethe (1749-1832) is known today primarily as a man of letters whose works include Romantic poetry and the two-part play Faust. In actuality he exerted so profound an influence in varied fields and among so many later creative geniuses, including

Hesse, Mann, Mozart, Nietzsche, and Darwin, that it's impossible to delve deeply into philosophy, music, drama, literature, or history without encountering his powerful presence.

Goethe thought that the use of scientific instrumentation carried the potential risk of separating the investigator from nature (Goethe, 1994, p. 311). Believing mind and sensorium to be finer tuned to the world than the most carefully designed equipment, he set to work inventing and training himself in a holistic-descriptive method of research even before Johann Heinrich Lambert coined the word “phenomenology” in 1797. Putting nature on the rack and torturing the secrets out of her, as Francis Bacon had recommended, held no interest for Goethe; instead, he sought a respectful, watchful approach that would avoid replacing a living thing with a category. What interested him was its self-revealing aliveness, a quality discerned only by cultivating an active relationship with the observed.

As Goethe gave his full attention to a plant, he allowed his deepening attentiveness to it to awaken an inner organ of understanding: the imagination. This awakening stood in contrast to the usual procedure of imposing the investigator's grid, manipulation, objectification, or inner deadness onto the “object” being studied. In Goethe's new research approach, which delicately deployed a concrete intuitive knowing he called anschauung, “exact sensorial imagination,” thoughts and speculations arose directly from participation from the observed instead of gazing at it from the cool distance of an onlooker or spectator (Bortoft, 1996, p. 90).

As his observation of details moved to awareness of the curves, patterns, and “motions” of what he studied, Goethe sometimes made brief sketches to emphasize its living, gestural nature. He also set these gestures to bits of verse. What we would now think of as the empirical dimension of research formed for Goethe a preliminary phase in establishing true relationship.

When Goethe achieved this quality of attentive intimacy, the plant no longer seemed a collection of smaller parts to be locked together in a kind of counterfeit wholeness (Bortoft, 1998, p. 294). Instead, it revealed itself as a network of relationships that enlivened the leaf as a unified being. Like Portmann, Goethe could see the defensive style of cacti, or the assertive upward thrust of tall trees. Imagined in developmental array, the plant began in the mind’s reflective eye as a seed, put forth roots, grew, blossomed, drooped, and died. Goethe disciplined himself to envision the entire span of its life as a single, seamless motion.

Carefully tended by exact sensorial imagination, this flow gradually resolved itself into the image or shape of the Ur-phenomenon: the essence or archetype animating the core of the

observed. This was not a Platonic archetype, as Goethe informed Schiller (Roszak, 1995, p. 306). It arose instead as a spontaneous inner vision from the primary organic forces of becoming and change glimpsed as one movement, one image. Eyes could see and measure the outer form of it as a plant, but the Ur-plant remained perceivable only in the eye of imagination. It pulsed and glowed as a dimension of depth within things rather than behind or above them.

Beyond this inquiry could not go, for the Ur-phenomenon was itself the foundation of all inquiry and explanation. Experiencing it opened a conceptual space for fact and hypothesis to meet and test each other. What remained was understanding how the archetype or essence of the plant fit into the generative story, presentation, or idea of the landscape in which it grew.

Although Goethe had criticized Newton's optical research severely for its dispassionate detachment from the perceived reality of color, anschauung remained compatible with empirical methods. As the Gnostics had before him, Goethe regarded empiricism as a preliminary step toward deeper modes of knowing. Problems surfaced only when the preliminary was taken for the final. Because this error was endemic to Big Machine thinking, Goethean phenomenology descended until recently into the cultural undercurrent.

Jung liked to spread around the family rumor of his descent from Goethe, but the legacy he inherited from one of Germany's greatest polymaths reached well beyond ties of blood. Like Goethe, Jung thought of himself as an alchemist. He even confessed to identifying with Faust (Jung, 1965, p. 87). In fact, alchemy, the deep study of matter and its forces, gave Jung a framework for understanding the universally occurring motifs for which he resurrected the name “archetype.” According to Marie-Louise von Franz, much of what we regard today as psychic belonged in the view of the ancient Greeks to the animate soul of the world (von Franz, 1992, pp. 145-46).

About mind’s connection with matter Jung wrote:

> The psyche, if you understand it as a phenomenon occurring in living bodies, is a quality of matter, just as our body consists of matter. We discover that this matter has another aspect, namely, a psychic aspect. It is simply the world seen from within (1977, p. 303).

Jung's conception of how archetypes originate and operate underwent a long cycle of refinement—the alchemists would have said circulatio—throughout his life. In his early writings

he speculated that recurring patterns such as the Hero/Heroine, Death, Resurrection, and Spirit represented nature's imprints on the collective mind, as when the daily rise and setting of the sun translates over millions of years into a psychic emblem of birth, youth, and death (Jung, 1969a, 153). In his middle period Jung wrote about archetypes in more humanized terms (King Queen, Warring Brothers, etc.), a practice carried to extremes in the archetypalization of everything from Advertisements to Zylophones in the hands of pop Jungians; but in later works Jung again linked archetypes to natural forces. One example is Aion, where he discusses the mineral and vegetative levels of the Self and compares the perpetual evolution of archetypal motifs to the self-rejuvenation of the sun's carbon-nitrogen cycle (Jung, 1969b, p. 260).

The book Terrapsychology contains a discussion of how archetypes and the mythic images they attract haunt and inhabit the natural world (Chalquist, 2007, pp. 111-115). Here the focus will be on what Jung called amplification of the image or motif (Jung, 1965, p. 391). By this he meant uncovering its meaning, essence, or aliveness by the two-fold approach of tracking one's associations to it while doing one's homework on it to find illuminating parallels. Hillman refers to this as “psychologizing” (1975, pp. 115-161).

As Jung explains in a discussion of the cross-cultural symbol of the eye of God,

> In dealing with the products of the collective unconscious, all images that show an unmistakably mythological character have to be examined in their symbological context. They are the inborn language of the psyche and its structure, and, as regards their basic form, are in no sense individual acquisitions. Despite its pre-eminent capacity for learning and for consciousness, the human psyche is a natural phenomenon like the psyche of animals, and is rooted in inborn instincts which bring their own specific forms with them and so constitute the heredity of the species....Whenever it is a question of archetypal formations, personalistic attempts at explanation lead us astray. The method of comparative symbology, on the other hand, not only proves fruitful on scientific grounds but makes a deeper understanding possible in practice (1964, para 646).

In a dream about a woman in armor pacing a rampart above a walled city, for example, asking the dreamer, “What does this scene bring immediately to mind?” might produce the reply, “The Acropolis,” the dreamer having recently traveled to Athens. This helpful information

suggests several lines of inquiry: does the dreamer feel on guard? What is being defended? For Jung, however, personal associations go only so far. An additional perusal of the humanities might reveal a cultural layer to the dream--especially the old story about an invading army whose commander dreamed that Athena paced the walls of the city he was to attack. Heeding this hint, he called a retreat instead. Knowing this old anecdote would suggest still further lines of investigation ("Do you identify at all with this image of Athena at her post?").

Free association and active imagination access aspects of a symbol that lend themselves to direct encounter, but amplification can reveal the symbol's more-than-personal meaning by putting it into a wider context. The fact that the dream above picks Athena, a collective and mythic figure, as its champion points through the psychology of the dreamer to the question of what wider reenactment of the story might be in play in the world outside the dreamer. As Joseph Campbell repeatedly pointed out, the old stories do not stay in books: they reinvent themselves over and over as yet another Icarus flies too high and plunges into the sea—or out the window of his executive suite as his high-rising bank goes belly up, built and then sunk on a tide of toxic transactions. "Inflation," "bubble," "collapse," and "depression" are not just economic terms, but mythic and psychiatric ones too. (Soulless enterprises eating everything in sight are now called "zombies"; Bram Stoker would have called them "the undead.")

New tools invite new aspirations. With anschauung and amplification now available, we turn to whether they can help human beings interpret nature's doings.

Lorecasting: Hearing and Translating the Speech of Earth

On June 5th, 2009, in Goshen County, Wyoming, a tornado was spotted by Vortex 2 project scientists reporting directly to the Weather Channel while chasing storms. They pointed their camera lenses in wonder.

And the tornado pointed back.

Standing upright, bowing directly toward the awe-struck scientists like a man taking off his hat to them, the raging funnel fixed its eye on them to reveal, for the first time ever filmed, the spinning insides of a tornado. In videos replicated all over the Internet, an on-site observer fittingly described the event as "a dream come true."

Although we cannot roll back Time and observe this startling storm-dream in person, we can watch a replica of it on video, staring through layers of lenses—our computer's, the video's,

the camera's—into and through the lens of the self-revealing tornado, gazing into the flows and structures, shapes and movements, as its stormy aliveness seems to peer back at us. Contemplate the image long enough, allowing it to turn in the mind's eye while bracketing the assumption that nature is dead and mute, allow the swirling body to coalesce into a gesture or a signal, and the tornado takes on the aspect of an immense, cloudy creature bending to examine its examiners.

Science having done the empirical study already of the forces and components comprising cyclonic weather, we are free to move from our brief anschauung into amplification. How does a tornado work as a symbol? What of the name of the place where it touched down?

Storms like this represent the meteorological counterpart to psychic complexes: vortices of umbalanced opposing forces whirling around a centerpoint until the energy that created the imbalance dissipates. In dreams tornados sometimes represent doorways or portals briefly joining one world to another, often to the transformation of both. Reaching down from above, these heavenly rabbit holes bridge the gap between higher and lower while cleansing, often destructively, whatever they touch.

As for Goshen, a Biblical land of safety in the midst of great turbulence:

> …And the hail smote throughout all the land of Egypt all that was in the field, both man and beast; and the hail smote every herb of the field, and brake every tree of the field. Only in the land of Goshen, where the children of Israel were, was there no hail. — Exodus 9:25-26 (King James Bible).

Nor did any fall on the observing scientists.

The tornado landed June 5th. “June” means “sacred to Juno,” whom the ancient Greeks called Hera, stormy queen of the heavens and keeper of the celestial household. Even Zeus feared crossing her. 5: the Quintessentia of alchemy wherein a fifth or final substance arises from the self-balancing rotation (circulatio again) of four warring elements. A prime goal of the alchemical opus was to increase human consciousness of the living qualities of matter.

June 5th also happens to be World Environment Day. Eight years earlier to the day, Hurricane Allison hit the Texas coast to pelt a record-breaking 75 counties with winds and transformative floods.

After experimenting with sensory imagination and amplifying the storm as a psychic image, we can now hazard a third step, that of speculative interpretation. Still bracketing the unhelpful assumption that Earth is blind and dumb, what might be the perspective of the tornado's eye, the message carried by its winds?

Perhaps this:

Do not see me just from the outside, from a distance. Look inside me, inside nature, and see the whirling aliveness there trying to address you!

When watched through a symbolic lens, and tuned in on with the ear of metaphor, nature turns toward us the face that we turn toward it (Chalquist, 2007, p. 49). Genuinely curious investigators pointed their lenses at the tornado, and it pointed back, equally friendly and perhaps even "curious." By contrast, a certain Midwestern high school staged a football game despite numerous storm warnings, a disrespectful decision of the kind the ancients would have called hubristic. As the crowds sat and their teams assembled, a team of tornadoes touched down nearby and drove everyone from the field. Ironically, one of the teams fleeing in panic wore jerseys imprinted with the name Cyclones. Fortunately, no one was hurt, and after their brief touchdown the funnels withdrew to a safe distance.

The first Big Machine objection to this kind of interpretation would be, of course, that it's anthropomorphic: "It credits an operation of nature with a human mind." No, it credits an act of nature with qualities of mindfulness evident throughout the natural world and more easily recognizable in human culture and language. The real block to understanding is not anthropomorphism, but anthropocentrism rooted in the culturally sanctioned narcissism of believing ourselves to be the pinnacle of creation. As Tarnas points out, the belief that all purpose and meaning in the universe are projected there by us may well be the most anthropocentric delusion of all (2006, p. 35). It could also be a projection of the inner deadness instilled by psychic disconnection from the natural world.

Another Big Machine objection: "What is the evidence that nature possesses this kind of intelligible reactivity?" What is the evidence that we do? Let us suppose as a thought experiment that tomorrow we encounter a representative of a extraterrestrial species that thinks with something other than neurons, speaks with something other than vocal chords, and sees with something other than orbs filled with ocular fluid. Adaptations that solve evolutionary challenges on this planet show great variation; another environment would produce still more adaptations.

Having decided to exercise caution, this representative appears without any trace of how it got to Earth.

Scientists examining the alien detect various biological complexities, most unfamiliar, others seeming to resemble neural nets of unknown purpose. The alien emits odd sounds and makes unfamiliar movements. It carries no detectable instrumentation cast from artificial materials. Perhaps its workings are not based on carbon compounds. How could its human examiners tell it was sentient? On the basis of purely empirical evidence, they couldn't. And if they were clever enough to find the alien's mode of transportation and use it to visit our visitor's homeworld, they would have bad luck indeed if they took the same precautions only to fall into the hands of alien empiricists hunting for some definitive generator of consciousness visible to entirely externalist examination and measurement. "It is obviously alive, but only barely, for it inhales oxygen, carries a hardened case filled with fragile gray and white mush, and possesses no crystalline mind complex distributed throughout its body. Let us dissect it."

A bottlenose dolphin seems to have run into this problem with researcher Hardy Jones. Noticing his attempt to communicate with it through a computer programmed only to record and repeat dolphin clicks, the dolphin drew near, then awkwardly positioned itself upright with its tail flukes resting on the ocean floor. As it "stood" like a human facing Jones, he realized in a flash that the dolphin was trying to communicate with him (Kaufman, 2005).

What was the message? "We are both intelligent beings trying to understand each other"? Difficult to say, what with mutual understandings needing to be worked out over extended conversations, but what comes through clearly is that to be intelligible, communication between humans and nonhumans must 1. carry symbolic meaning, and 2. display interactivity. If it holds, it can be interpreted much like symptoms, fantasy images, and dreams can be.

A third objection: "How do you know you're not projecting inner states onto the outer world?" Some version of this objection arises whenever worldviews collide; aboriginal people have been accused of it since the dawn of colonization. Nevertheless, it's a possibility that must be taken into account. Ultimately, the risk of projection cannot be ruled out entirely, but steps to take to minimize it can be formulated as questions to ask oneself: What within me do I need to keep an eye on? How might my inner conflicts and unresolved traumas interfere with my end of the conversation? Do other people resonate with my interpretation or reject it for what sound like sensible reasons? Hillman argues that projection "is simply animation, as this thing or that

spontaneously comes alive, arrests our attention, draws us to it" (Hillman, 1981, p. 102); but if anything projection kills dialog, smothering our sense of the Other's aliveness (Chalquist, 2007).

Sometimes the presence or "voice" of land or place works its way into the human psyche. In the ecologically fragile Farallon Islands, biologists have nightmares in which crowds of people crush birds' eggs and ruin habitats. "We call those 'island invasion dreams,'" reports one researcher. "We all have them" (Jones, 2010).

If storms, earthquakes, and other natural events represent a symbolic "speech," how is it arranged without the benefits of either ego or nervous system? The more we learn about this ancient and indescribably complex planet we live on, the greater grows our appreciation of its intrinsic intelligence. To take a single example from the multitude of self-regulating systems that keep the world in balance, the fungi below our feet (we learned recently) extends its threadlike mycelia through most fertile soil to intersect with the tiny plant roots it feeds. Acting somewhat like brains, fungi nets the size of large cities regulate entire ecosysems by distributing chemical messengers through vast underground networks, even down to diverting extra nutrients to trees deprived of sunlight. This is just one planetary system that works intelligently without the benefit of a primate nervous system, functioning every moment with a sophistication we only begin to fathom. If Systems Theory is correct, then the interactions of this system combine with those of other systems to produce emergent levels of complexity irreducible to their lower-level design elements.

A fourth objection: "How do you know these interpretations aren't as forced or arbitrary as seeing a vagina in every dream-time train tunnel?" The risk of projecting onto what's outside of us makes this a possibility to bear in mind. As often as Freud and Jung railed against the "dream book" approach to unlocking symbolism, they sometimes fell into it themselves. However, they also emphasized the need to feed their interpretations back to the dreamer or sufferer of symptoms for ultimate validation: a variation on what philosophers refer to as the hermeneutic circle. We cannot verbally ask a tornado if its eye stares back at us, but we can begin to approach the natural world with an attitude of humble inquiry and see how the world responds (see Alice Walker's comments below). We can also keep an eye on our own dreams for when our surroundings show up there to offer feedback, as when the presence of a place we explore appears at night in personified form to continue the conversation (Chalquist, 2007). What's needed, perhaps, for fuller conversational knowledge is an extended, worldwide

collaborative inquiry with Earth; thirty of us have made a start on this with the TerraPlaces online project for teaching the public techniques for listening in on the presence or "soul" of place (Powers of Place Initiative, 2010). From this could evolve an "intersubjective animism" by which we approach places and their creatures and elements as subjects rather than only as objects.

Equipped with an unhumanized ear that tunes in the imagination instead of fettering it, we can appreciate the ironic symbolism of the group of skunks that invaded a black tie party in San Francisco one evening—even as coyotes descend from suburbanized hills to scavenge and overturn trash cans (return of the Trickster). We can applaud the pet rabbit whose scratchings on the bedroom door saved a couple in Melbourne from burning to death in an undetected back-room fire, and the dolphins who intervened when Somali pirates tried to attack Chinese merchant ships near the Gulf of Aden.

As temperatures rise, the planet surface grows feverish, and the polar ice caps weep into rising seas, an oil rig explosion in the Gulf of Mexico exposes a hole that gushes with petroleum. Months go by until the stubborn gusher can finally be capped. Even onlookers not used to anschauung and amplification describe this catastrophe as a deep wound that will not close. Another oil rig burns five months later. All this takes place not far from where Hurricane Katrina struck her blow in one Gulf as combat troops invaded another Gulf to secure petroleum in Iraq. The storm swept away 109 oil rigs. "Katrina," a variant of Katherine, comes from the Greek word katharos, "to purify," similar to the word "catharsis."

We look up in awe and fear to see four twisters touch down next to a new housing development southeast of Denver (August 2008) to hail and rain on several recently built subdivisions. The storms hurt nobody—this time. That August, Hurricane Gustav forced several oil companies to evacuate their production platforms in the Gulf of Mexico. A month later, Hurricane Ike swept through to destroy forty-nine oil and natural gas platforms. In 2009, a sandstorm suddenly hit Baghdad to delay the first oil bidding in three decades.

> The world, because of its breakdown, is entering a new moment of consciousness: by drawing attention to itself by means of its symptoms, it is becoming aware of itself as a psychic reality (Hillman, 1981, p. 97).

And yet if nature turns toward us the face that we turn toward it, then a gracious openness can make room for a more pleasant response, as Alice Walker notes:

> What I have noticed in my small world is that if I praise the wild flowers growing on the hill in front of my house, the following year they double in profusion and brilliance. If I admire the squirrel that swings from branch to branch outside my window, pretty soon I have three or four squirrels to admire…And then, too, there are the deer, who know they need never, ever fear me (1988, p. 189).

Far more common than is normally acknowledged, such exchanges bring us out of ourselves by inviting further dialog.

Earthrise: Toward a New Mythos of Deep Homecoming

Before Copernicus (Joseph Campbell pointed out), we could think of Earth as "down here" and heaven as "up there," as divided as our religious ideas, values, and politics. Of course, this kind of splitting went on even after Copernicus. But a single photograph of Earth rising behind the Moon changed that forever:

> With our view of earthrise, we could see that the earth and the heavens were no longer divided but that the earth is in the heavens. There is no division and all the theological notions based on the distinction between the heavens and the earth collapse with that realization. There is a unity in the universe and a unity in our own experience ("Earthrise," 1979, p. 56).

Jungian analyst Jane Hollister Wheelwright felt that collapse intensely. (An astrologer had once told her that her horoscope was similar to Earth's.) Writing in her journal at the California ranch set up by her pioneer grandfather, she noted that

> I finally reached the realization that the Divinity still needing human recognition is our own planet earth in our solar system. It is the universe that humans have taken over for their own use which needs recognition from them (1991, p. B-1).

Wheelwright believed this could be done through a double listening: to natural events in the places where we live (for example, to earthquakes, tornados, and other disasters which remind us that we are not all-powerful), and to messages from the deepest layers of the psyche: fantasies, synchronicities, and dreams she came to recognize as, at bottom, the speech of nature too. By participating more consciously in natural cycles, and by protecting the earthly places we love, humans "find their rightful place in relation to the planet" (1991, p. 32).

Big Machine thinking would see this sort of listening and living as a regressive return to the womb of Eden, but it actually involves a move of maturation from the fantasy of omnipotent independence to intelligent, adult-level interdependency. "We can't go back to nature," noted Campbell, "any more than one can be a virgin once again, but we can put ourselves in accord with nature" and be restored (Miodini, 1986, p. 36).

As multiple worldwide ecological crises deepen, the need for restoration gains an urgency never before witnessed in human history. Jung's recently published Red Book contains images that suggest such a restoration:

> But I was no longer the man I had been, for a strange being grew through me. This was a laughing being of the forest, a leaf green daimon, a forest goblin and prankster, who lived alone in the forest and was itself a greening tree....I had absorbed the life of both my friends; a green tree grew from the ruins of the temple...(2009, p. 276).
>
> I talk with trees and the forest wildlife, and the stones show me the way.... (p. 277).

Astonishing ecological revelations recur throughout the Red Book, some of them brought by Philemon, Jung's Wise Old Man-within:

> ...You produce the torment of incomprehension, and mutilate the creation whose nature and aim is differentiation. How can you be true to your own nature when you try to turn the many into the one? (p. 351).

> These dead have given names to all beings, the beings in the air, on the earth and in the water. They have weighted and counted things...What did they do with the admirable tree? What happened to the sacred frog? Did they see his golden eye? ...Did they do penance for the sacred ore that they dug up from the belly of the earth? No, they named, weighed, numbered, and apportioned all things. They did whatever pleased them...Yet the time has come when things speak (p. 352).

Furthermore, had men atoned for the ox and the trees and the frogs (Philemon went on), they would not have lifted their hand against each other. A time would come, however, when

> The earth became green and fruitful again from the blood of the sacrifice, flowers sprouted, the waves crash into the sand, a silver cloud lies at the foot of the mountain...The stones speak and the grass whispers (p. 353).

With this prophecy Philemon kissed the ground and vanished.

In old age and illness Jung found himself caught up in a tremendous vision of Earth as it might be seen from space. Looking at the famous "earthrise" photograph, Campbell had this to say in the year of his own death:

> You see the whole Earth without any national divisions at all. I try to take the position of the eye beyond the pairs of opposites, seeing the world of metaphor as reference not to political and social problems, but to the deep human spiritual problem--the opening of the heart and eyes to the wonder of the world we're in. With that, I think humanity is saved (Marler, 1987, p. 61).

If nature indeed "speaks" in symbolism, the metaphoric language of dreams, symptoms, and the deep unconscious, the unhumanized ear of "terrapsychologizing" offers us an opportunity to imagine ourselves belonging to a larger-than-human field of intelligence even as we listen in on what our long-suffering Earth could be thinking about.

Perhaps the new Earth-shaped mythos is not a, "Once upon a time..." but a shift from content to process, thing to flow, singleness to network, and surface to depth. Perhaps we enact it

in how we choose to come home to the world as her long-estranged adult children, with Terra a valued partner in how we tell our continuing tale of our place here.

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Powers of Place Initiative, TerraPlaces Psychocartography Project. For more information, visit http://powersofplace-workspace.ning.com/. I would like to express my appreciation for Katrina Martin Davenport, co-author of the curriculum being used to explore the presence of place worldwide.

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