

Holding on to Proteus; or, Toward a Poetics of Gaia

Without conscious device we constantly reach into the vast word-hoards in the depths of the wild unconscious. We cannot as individuals or even as a species take credit for this power. It came from someplace else: from the way clouds divide and mingle (and the arms of energy that coil first back and then forward), from the way the many flowerlets of a composite blossom divide and redivide, from the gleaming calligraphy of the ancient riverbeds, ... from the wind in the pine needles, from the chuckles of grouse in the ceanothus bushes. (Snyder 18)

In the book of aphorisms, *Protean Poetics*, I write “Pythagoras saw *Kairos* as one of the laws of the universe, but it is difficult to know if that god outweighs another, namely, Proteus” (*Protean Poetics* 9). An aphorism, though, if it is worth its weight, ought to have a mountainous terrain of thought girding it up. This chapter explores some of that terrain—a terrain that points toward a poetics of Gaia.

By invoking the name Gaia, this essay enters into the ongoing discussion and exploration of finding better ways of understanding, perceiving, and responding to the Earth. Bruno Latour’s work charts an array of implications stemming from Lovelock’s groundbreaking work, earth-as-super-organism. Latour’s “Agency at the time of the Anthropocene” is particularly crucial for moving toward a poetics of Gaia, especially as he argues that “Gaia is not the same character as nature,” and he calls for us to “supplement the results of semiotics with an ontological proposition” (13). This ontological proposition hinges on his “morphisms” or “x-morphisms” with the *x* “standing for the first part of all those compound words,” including anthropomorphism, zoomorphism, ideomorphism, and so forth. He stresses, though, not the prefix “but the word ‘morph’ that means *form* or *shape*” (13). He argues against the idea that such morphisms are fallacies, pointing out that each of the morphisms are simply an effort to explore, the “unknown *actants*” before those unknown actants become “well-recognized *actors*” (13). He continues, “Even the most respectable entities—characters in novels, scientific concepts, technical artifacts, natural features—are all born out of the same witches’ caldron because, literally, that is where all of the *shape-changers* reside” (13).

This essay adds a layer to Latour's theory of a semiotics supplemented with the "ontological proposition" of morphing. I prefer, though, the term poetics (*poiesis*) over semiotics as the former points toward the ongoing making-ness sustained by the semiotic processes infusing the morphings throughout Gaia. Moreover, this essay frames the process of poiesis with the figure of Proteus. A protean poiesis, I argue, provides the traction for delving further into the morphings of Gaia as it points toward the energy in that witch's caldron.

Let us begin, not unlike Haraway's chapter "Tentacular Thinking," by focusing on spiders. As a point of entry into the world of meanings of the "Chtulucene" (the name for "becoming with" and "making kin" through a squid-like, multi-tentacle response to the Anthropocene), Haraway foregrounds spiders because their "many appendages make string figures" and because they "entwine [her] in the poiesis—the making—of speculative fabulation ... in sympoietic threading, felting, tangling, tracking, sorting" (31). Moreover, they have much more agency than one might give them credit for, above and beyond being a figure that can push human thinking in new directions.

Some spiders, perhaps, can play.

In *The Genesis of Animal Play*, Gordon M. Burghardt grapples with the implications of a small genus of jumping spiders known as *Portia*. These spiders eat other spiders, and they use a wide range of tactics in order to capture their prey, one of which is the ability to "invade another spider's web by sending vibratory signals through the web that mimic the signals created by insects captured in the web." *Portia* create these signals dexterously as they "pluck, slap, and ... flick" the web with their appendages and their abdomen. One might think that *Portia* have a "pre-programmed" ability to undergo this creative task, but researchers have observed how *Portia* will "send out a range of signals" until they lure out their prey, and that a *Portia* spider "learns to use different signals for different 'caught insects'" (368). Such observations suggest that *Portia* have the degree of agency and plasticity necessary to (deviously) imitate a wide range of insect ontologies—even if those ontologies have to do with being frantic in a spider's web. Protean-like, their vibrational energy morphs into an insect's way-of-flailing, and then another and another, until they lure out their prey.

Portia spiders epitomize what I have called zoopoetics, that process of making innovative breakthroughs in form through attentiveness toward another species, bodily poiesis (*Zoopoetics* 10). But this narrow definition marks only a starting point. What about, for instance, when a species makes an

innovative breakthrough through an attentiveness toward an element, or a plant, or a machine? Bowhead whales, for instance, fold the sounds of expanding and contracting ice into their whale songs; a harbor seal has mimicked the sounds of a chainsaw, a car alarm, and a camera shutter; captive elephants rematerialize traffic sounds into their vocalizations (Rothenberg 194-96; Kelley and Healy)—and by “rematerialize” I explicitly draw on Scott Knickerbocker’s work on “sensuous poesis”: the “process of rematerializing language specifically as a response to nonhuman nature” (2). Whales, harbor seals, elephants, all rematerialize their material semiotics in response to their environment. We must add Alex, the famous parrot, to this list. He made breakthroughs not simply by imitating humans speaking English, but also by adding the sounds of cages rattling, horns honking, doors closing, and phones ringing to his range of experimentation (Burghardt 266-67).

Human poets, too, discover breakthroughs through an attentiveness to plant, element, or machine. Concerning the latter, I am reminded of Marinetti’s “poetry being born” and the daring break into an onomatopoeic pulsing of train:

POETRY BEING BORN

train train train train **tren tron**
tron tron (iron bridge: tatluuuun-
 tlin) sssssssiii ssiissii ssiisssssiii (200)

Proteus as cyborg.

In a less intense example, William Carlos Williams gives us four wheelbarrows in his title-less poem:

So much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens (I: 224)

I agree with Neil Easterbrook who argues that “editors perform a dis-service” when they give this poem a title, for they “edit away its inherent—indeed, intended—problematics” (29). I would also add that the forced title pins down the poem that was published in the context of *Spring and All*, an extended meta-reflection on language and the imagination—a reflection that pushes genre, blends genre, turns chapter markers upside down, and proceeds out-of-order. So much depends, then, on this flux of energy, this protean energy, infusing not only this thing called human language where four stanzas morph into wheelbarrow but also the biosemiotics of whales, seals, *Portia* spiders, parrots, and perhaps all of Gaia.

Wendy Wheeler’s work on biosemiotics resonates with the protean dynamic I explore. When discussing the “emergence of communicative systems,” Wheeler foregrounds the need for some sort of pressure, what I see to be the kind of *holding on* that propels Proteus to morph. In the biosphere, “levels, or layers, of relative stability are always pregnant *in potential* with the emergence of new adaptive forms in response to environmental pressures. Each ‘layer’ is, over time, increasingly rich in communication, or semiosis” (272). Her work helps us see how the environmental pressures exerted on *Portia* spiders turned the “pregnant *in potential*” of material semiosis into a kinetic reality. Perhaps, for the bowhead whales, the pressure to add ice creaks and groans to their songs is the pressure of play. For Koshik, the elephant who stuck his trunk in his mouth to vocalize five Korean words, the pressure seems to be social (Stoeger et al.). Isolated at a time of adolescence, he reached out, semiotically, to the only other mammals in his environment.

This squeeze, this *holding on*, takes place, too, in the work of human poets. To illustrate, I turn to the pressure Ronald Johnson places on language in his “earthearthearth” poem (67):

earthearthearth
 earthearthearth
 earthearthearth
 earthearthearth
 earthearthearth
 earthearthearth

Through the fusion, through the pressure of the square, he achieves a fission of language where suddenly an almost exponential surge of words and phrases come into being: *hear the earth, hear the art, ear, art, heart the earth, art earth, hearth*, etc. Language becomes a cauldron of protean energy turned kinetic, and though some may see this “accidental” coincidence to be merely

a trope for the earth's energy, for Gaia's energy, I suggest that Johnson's poem participates in that same energy of a biosemiotics that infuses the earth. As Wheeler suggests, the "biosphere is also the semiosphere" (272)—and I add, again, that the protean poiesis of this semiosphere helps foreground the protean agency of semiotic processes. Johnson makes more of an explicit move toward biosemiotics, for the page following the "earthearthearth" poem includes a diagram of mitosis and an ode to the cell: "prosper / O / cell // through there where the forest is thickest"—with the "O" of course, morphing into an iconic sign for a cell (68). And that is just it. It is not simply that the cell is a trope for language, or language a trope for the cell, but that both exhibit their own agency to fuse and split. In the context of mitosis, it is not going too far to see the square of "earthearthearth" as a cell ready to split apart as individual words emerge as separate cells of their own, full of their own potential energy. Something seethes within the open confines of this box, this square. It is as if the square takes on a seed-like quality, or a zygote-like quality, that cannot not explode into an exponential surging of possibility.

To further grapple with this protean energy, I turn to what I see to be one of the most thorough, extended, and profound meta-reflections on protean energy in American literature: *Moby-Dick*; or, *The Whale*. Even in the bifurcated title, Melville hints at how both the poetic approach (i.e., "Moby-Dick") as well as the scientific approach (i.e., "The Whale") are needed; or rather, how Proteus thrives in the logic of *or*. Like *Portia* spiders, who send the vibrations of a gnat, or fly, or beetle through their prey's web, the text of *Moby-Dick* becomes sermon, or play script, or marble inscription, or cetology, or epic narrative, or etymological text. *Moby-Dick* epitomizes, therefore, Haraway's "tentacular thinking," and from this vantage point, perhaps the most meta-reflective chapter of the book is that of the squid, especially as Ishmael foregrounds how each tentacle of the squid possesses the power to squeeze: "A vast pulpy mass, furlongs in length and breadth, of a glancing cream-color, lay floating on the water, innumerable long arms radiating from its centre, and curling and twisting like a nest of anacondas, as if blindly to clutch at any hapless object within reach" (226). Applied to *Moby-Dick*, each genre, and each chapter, moves like an anaconda, weaving around other genres/chapters, through the reader's consciousness, poised to curl and squeeze.

Later, Ishmael foregrounds the weaver: "Oh, busy weaver! unseen weaver!—pause!—one word!—whither flows the fabric?" He continues:

Wherefore all these ceaseless toilings? Speak, weaver!—stay thy hand!—but one single word with thee! Nay—the shuttle flies—the figures float from forth the loom; the freshet-rushing carpet for ever slides away. The weaver-god, he weaves; and by that weaving is he deafened, that he hears no mortal voice; and by that humming, we, too, who look on the loom are deafened; and only when we escape it shall we hear the thousand voices that speak through it. (345)

At this moment in *Moby-Dick*, Ishmael praises the “weaver-god” whom he sees as the Earth, the ever growing, ever creeping, ever seeking vegetation of the earth. I see the “weaver-god” as another name for protean energy. Of course, we know that *text* comes from the Latin *textus* meaning *to weave*, and so this passage becomes a reflection on the nature of language as well. Elsewhere in *Moby-Dick*, Ishmael speaks of the “furious trope.” Trope, from the Greek *tropos*, meaning *a turning*. Lewis Hyde, in his well-known *Trickster Makes This World*, sees the trickster as a “poly-tropic” shapeshifter, having many ways and many turnings (52-53). A trope. A fury of tropes. A fury of turnings and morphings. Ishmael’s “loom” of the Earth, then, with its “thousand voices,” points toward the sheer power of poiesis infusing the burgeoning forms of Gaia’s vegetation.

And then, right in the beginning of *Moby-Dick*, Ishmael marvels at what becomes one of the most significant meta-passages in the entire work: the ekphrastic description of a painting that, at the center, holds a “nameless yeast” (26). If I had to give this yeast a name, it would be Proteus, for furious morphings permeate the entirety of *Moby-Dick*, from the biomimicry of the architecture of the bar turning into whale jaw, and the pulpit turning into prow, and so on. Moreover, the impetus for Ishmael’s writing *Moby-Dick* is his wanting to give homage to his lost companion, lover, friend, soul-mate: Queequeg. The editors of the *Norton Critical Edition* point in this direction as they place the image of Queequeg’s tattooed face on the cover of the book. Indeed, a seer tattooed the strange “hieroglyphics” onto Queequeg’s body, his “living parchment”—hieroglyphics that point to “a complete theory of the heavens and the earth, and a mystical treatise on the art of attaining truth” (366). Later, Queequeg etches these marks onto the coffin, the same coffin Ishmael had to have taken with him when the *Rachel* picked him up out of the sea. How could he not have? Ishmael’s writing of *Moby-Dick* is an homage to Queequeg and an honoring of those tattoos. The complete theory of the heavens and earth morphs from the seer’s mind, to tattoo, to the etchings on a coffin, to the making of the monstrosity of the book itself.

Another noteworthy morphing occurs in the etymology section where we learn that the letter H is the most significant letter in the word *whale*:

While you take in hand to school others, and to teach them by what name a whale-fish is to be called in our tongue, leaving out, through ignorance, the letter *H*, which almost alone maketh up the signification of the word, you deliver that which is not true. (7)

The *H* captures the possible-impossibility of getting at the sheer vitality of a living whale through this thing called language. As Peter Moe recognizes, every time we say whale, we are invited to participate in that living breath, that epic exhalation, that sheer rush of vital, physical, spiritus of the whale spout (“Sounding” 870):

wwwwwwHHHHHHHHHHaaaaaallllleeeee

The *H*, protean-like, morphs into a whale breath that tremors our teeth, jaw, and skull—until all energy dissipates from the tongue’s press of the letter *l* on into the charged silence of the letter *e*, which is not unlike the silence of the ocean’s depths where the whale has now returned. Perhaps no other word is so thoroughly inhabited by another species than this.

The reader has an opportunity to witness and participate in the squeezing of language. And in the context of protean energy, the chapter on the squeeze resonates: “My fingers felt like eels, and began, as it were, to serpentine and spiralize” (322). Camille Paglia suggests that this squeezing, this “circle-jerk,” is yet another iteration of the romantic uroboros, the snake who eats his tail, as she traces the circle throughout the text (699). But the squeeze of the entire novel is not entirely male. The orgasmic energy of “the squeeze” emerges from the larger context of a uterine contraction, especially in the Grand Armada where circles upon circles bear down, contract, and squeeze the crew that arrives at the center of a great “lake” in the ocean as innumerable bodies of whales create a circular perimeter (302). This epic scene makes sure readers see the squeeze, the contraction, of the circle: “concentric circles,” “centre of the lake,” “outer circles,” “rim of the horizon,” and then the “heave and swell,” the “contracting orbits.” All of these examples contribute to an oceanic squeeze of a contraction (302-03). Here, Queequeg (and the reader) witness the calf still tethered to the mother through the umbilical cord. But the circle contracts, bears down, and ends up squeezing the center into oblivion, birthing the boat onward.

Birth permeates the text, from Queequeg’s “delivery” of Tashtego from the womb/tomb of the whale head, to the many instances where someone or something is placed at the center of a vortex, including Queequeg’s coffin. And I return to that ekphrastic painting where, in the center, the afore-

mentioned “nameless yeast” buoys up some indiscernible shape. The yeast cannot not expand exponentially, and it cannot be named. If named, it will ferment within that name, increasing its potential energy until a rupture turns that energy kinetic.

This “nameless yeast,” this vegetative and animal exuberance that cannot not grow, points, in my mind, toward a poetics of Gaia. As mentioned, Pythagoras saw *Kairos* as one of the laws of the universe; I suggest that Proteus, too, ought to have that kind of stature. To add to the weight of evidence for such a claim, I turn toward mathematics. Let me share a story. In my early teaching years, I tutored a wide range of students in mathematics. I remember working on dividing fractions with a sixth grader who asked me, naturally enough, why we invert and multiply in order to simplify, say, $2/3 \div 4/5$. The question flummoxed me. The book did not say. I did not know. This happened before you could just “google it.” I went home haunted by the question and determined to figure it out. An intuitive hunch led me to re-write the same expression in a different form—in other words, to let the expression morph into something else:

$$\frac{2/3}{4/5}$$

As I stared at the denominator, I had enough of a background to know I needed to turn it to “1,” so I wrote the inverse in the denominator, and then, Eureka!—it suddenly became clear that I simply wrote the inverse in the numerator as well, because anything divided by itself equals one:

$$\frac{2/3}{4/5} \left(\frac{5/4}{5/4} \right)$$

So, multiplying the original expression by a more complex name for “one” gives Proteus room to morph into a simpler expression. When I met with the sixth grader again, we had a lesson on Proteus and brainstormed a few of the infinite ways we can say “one.” I explained that she had to sift through all the different ways of saying one in order to find the expression that would let the magic take place, to suddenly let the denominator vanish so we can invert and multiply—but since anything times one is itself, the value had not changed.

When I worked with middle school students on radicals and exponents, I likewise focused on how, really, simplifying an expression is an exercise in *holding on* to Proteus as the value morphs through many different forms. I had a handful of students who wanted to form a math club, and we did it. Their favorite activity was racing each other to see who could simplify a complex expression. The following example can take less steps, but I include each stage for clarity:

$$\begin{array}{llll}
 1. \sqrt{\frac{32 \cdot 243}{36}} & 2. \sqrt{\frac{2^5 \cdot 3^5}{6^2}} & 3. \sqrt{\frac{6^5}{6^2}} & 4. \sqrt{6^{5-2}} \\
 5. \sqrt{6^3} & 6. \sqrt{36 \cdot 6} & 7. 6\sqrt{6} &
 \end{array}$$

Some of the quicker students, of course, skipped steps. One, in particular, skipped several steps at a time, allowing the multiple layers of patterns to fly through her mind until she landed on the simplest expression. Regardless, each iteration of the process becomes another way of saying the value, and the mind, attuned to the laws of exponents, can experience the value morph through several expressions with great rapidity.

I still remember the faces of the middle schoolers and the sixth grader's expression as well when they got a glimpse of the fierce infinitude in math. No doubt about it, some experienced the sublime. The "infinite" is one of Edmund Burke's categories for the sublime, and he suggests that the infinite "has a tendency to fill the mind with that sort of delightful horror, which is the most genuine effect and truest test of the sublime" (129). Regardless of our backgrounds or phobias surrounding math, I hope we can all appreciate the "delightful horror" in the following expressions discovered by the mathematicians Ramanujan and Euler, in that order (qtd. in Clawson 210, 98):

$$1 - 5\left(\frac{1}{2}\right)^3 + 9\left(\frac{1 \cdot 3}{2 \cdot 4}\right)^3 - 13\left(\frac{1 \cdot 3 \cdot 5}{2 \cdot 4 \cdot 6}\right)^3 + \dots = \frac{2}{\pi}$$

$$\sum_{n=1}^{\infty} \frac{1}{(2n-1)^2} = \frac{1}{1^2} + \frac{1}{3^2} + \frac{1}{5^2} + \frac{1}{7^2} + \dots = \frac{\pi^2}{8}$$

Because π is a transcendental number with a nonrepeating decimal, we may be surprised to see such a predictable pattern in the infinite series of fractional form. Ramanujan's recasting of two divided by π becomes a predictable pattern. With each iteration, the numerator grows by the pattern of the odds, the denominator grows by the pattern of the evens. One alternates between subtracting and adding each subsequent iteration, and the whole number grows by four (1, 5, 9, 13, 17...). Euler's expression involves adding one over the pattern of the odds squared, all the way to infinity, to arrive at π squared over eight. In both expressions, I see an epic morphing across the equal sign, from one form, into another, with vertiginous precision. A delightful horror indeed. A protean sublime.

I do not have the space, here, to discuss Proteus in the context of Fibonacci's spiral, the Golden Ratio, fractals, and the Mandelbrot set—but I will say, briefly, regarding the Mandelbrot set, that the iterative equation places pressure on each point of the complex plane, say, the point at $.5$ and $.5$ square-roots of a negative one. If the value spun to infinity quickly, Mandelbrot "painted" it a hot color. If slowly, a cooler color. If the value arrived at zero, he painted the point black (Briggs 74-81). The iterative equation becomes a way to squeeze and to hold onto each point on the complex plane in order to bring forth all the breath-taking emergences of fractal forms, and it is yet another example of the profound ways a protean energy infuses number. As fractals point back toward the fractal forms of the earth, it helps us come full circle back to a poetics of Gaia.

To my knowledge, no one has used the term "protean sublime" in any formal discussions, but it seems to me that the term can be helpful as we tease out what a poetics of Gaia might mean. To think this through, I turn to Timothy Morton's theory of hyperobjects. He, of course, gives many examples of hyperobjects—those "things that are massively distributed in time and space relative to humans" including: Styrofoam, global warming, ecosystems, pesticides, oil fields, a black hole, radioactive waste. They have a "high-dimensional phase space that results in their being invisible to humans for stretches of time" (1). In his chapter on Phasing, he explores the "higher-dimensional phase space" of hyperobjects and illuminates how "we can only experience somewhat constrained slices of them at any one time"; the hyperobject "churns away, emitting ghosts of itself for [our] perusal" (74).

Though not explicitly, Morton's work already points toward the idea that protean energy is a kind of hyperobject. He writes,

The singing of Sanskrit syllables, such as “OM” ... evokes the materiality of the singing body and of the breath that circulates within and outside that body. These syllables are made to vibrate with as subtle and as profound a range of harmonics as possible, evoking the vastness of the universe. Devotional singing, then, is a form of hyperobject. (169)

Or, as Joseph Campbell articulates, AUM includes “all vowel sounds” and “all words are ... fragments of AUM” (286).

Indeed, the chant allows one to experience a glimpse of that vibrational energy of the cosmos. But that energy is tantalizing due to its phase-space. Morton, speaking of global warming, conjectures that a “high enough dimensional being could see global warming itself as a static object. What horrifying complex tentacles would such an entity have, this high-dimensional object we call global warming?” (71). Likewise, what monstrous, complex, tentacles would this high-dimensional object we call protean energy have if seen from the vantage point of a high enough dimensional being?—especially as we can only see a sliver of its full force?

This essay has put forward several manifestations of protean energy, from *Portia* spiders, to the Mandelbrot set, to basic math, advanced math, Johnson’s “earthearthearth” poem, Melville’s squeezing of language and genre, the chant, Alex the Parrot, Koshik the Elephant, and the biosemiotics of cells. And I could have included many more examples such as the spirituals sung by slaves morphing into Jazz under the extreme pressure of racial injustice as a result of a failed emancipation (Jean Toomer’s *Cane* with its hybrid and protean genre exemplifies the work of Proteus under the squeeze of trauma); I also think of Gloria Anzaldúa’s work in *Borderlands / La Frontera* where she explores, in her words, how “protean being” and a mestiza consciousness emerge under the pressures of living in a borderland (63)—and there are many more examples I could give, each of which is merely a hint of this sublime hyperobject the Greeks called *Proteus*.

I read Menelaus’ tale as cautionary. Menelaus only ambushed Proteus when Proteus returned to his cave to sleep, that is, when he was fatigued. Only then would it be possible to begin to hold on; such is the power of Proteus’ energy to morph. It seems writers like Melville held on when Proteus was not so sleepy, and such writers seem to become obsessed with the tantalizing phase-space of Proteus’ manifestations.

But this essay, though it includes human poiesis, seeks to move beyond it. Surely, a poetics of Gaia must include all that the chant of AUM points toward, and perhaps Gaia is nothing more than a seed tossed aside during a hyperobject’s wild blossoming.

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