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Toward an Arboreal Poetics

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Abstract This is the third of four dialogues between the characters 'M' and 'L'. In the second dialogue, "Planetary Poiesis", the pair begin to discover how patterns of bifurcation in the cosmos have a deep kinship with patterns of bifurcation in human thought and language. However, the concept of arboreal poetics puts this idea under pressure, opening up further insights into the relationship between bifurcation and poiesis. Moreover, the term arboreal poetics (not unlike zoopoetics) has the potential to point in several directions at once. The aim here is to imagine several possible categories that can help map the vast terrain of the relationship between trees and poiesis.

Keywords Arboreal poetics. Zoopoetics. Poiesis. Biosemiosis.



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Prologue

This is the third of four dialogues between the characters "M" and "L". Each dialogue explores some facet of the relationship between the Poiesis of the Earth and the Poiesis of human language. In order, the dialogue titles are.

- "Aristotle's *Poetics* & Sperm Whale Poiesis";
- "Planetary Poiesis":
- "Toward an Arboreal Poetics";
- "Stillness, Deep Time, & the Corpse; or, An Ode to Eros".1

In the second dialogue, "Planetary Poiesis", M and L begin to uncover how patterns of bifurcation across the cosmos have a deep kinship to the patterns of bifurcation in human thought and human language. "Toward an Arboreal Poetics" continues the exploration but with a focus upon the bifurcation of trees. Additionally, the term arboreal poetics (not unlike zoopoetics) has the potential to point in multiple directions at once. The aim, here, is to envision several possible categories within arboreal poetics that can help map the vast terrain of the relationship between trees and all things poiesis.

The dialogue is not truly dialectical in that M and L often mirror each other's thoughts rather than representing differing perspectives. It's not a debate; they are not trying to win. They are open to new ideas, and they aim to deepen understanding through a leapfrog approach to discourse.

- L Have you come across the term *arboreal poetics* yet?
- M I have just recently, and I am very much intrigued by it.2
- L Me too. Ideas within all things *poetics* move so guickly. When Brenda Hillman writes of a "hydropoetics" in *Practical Water*, one can suddenly envision a pyropoetics, a geopoetics, a thermal poetics (2009, 85). And that was well over a decade ago. We have a zoopoetics, too.
- M Why not arboreal poetics?

¹ The fourth dialogue, "Stillness, Deep Time, & the Corpse; or, An Ode to Eros" will appear in Miranda's special issue focusing on representations of animal corpses quested-edited by Claire Cazajous-Augé. It gives "L" and "M" the space to fully develop the ideas on Eros. The first dialogue, "Aristotle's Poetics & Sperm Whale Poiesis, a Dialogue" can be found in the edited collection La 'Poetica' e le sue interpretazioni: Aristotele tra filosofia, letteratura e arti. The second dialogue, "Poiesis", is forthcoming in The Routledge Companion to Ecopoetics.

² In a 2020 journal article, H.J. Yulianto uses the term "arboreal poetics" in the title. The argument exemplifies not only the presence of trees within poetry, but also how such a presence deepens one's 'ecological awareness' and urges one toward ecological ethics (Yulianto) - which is one facet of arboreal poetics. This dialogue suggests and explores several additional facets of what arboreal poetics might suggest.

- L It has potential to open up fresh ways of thinking about trees and storytelling. But the challenge before us concerns what the term might even mean.
- M Should the term be mapped? Or just used? Sometimes when humans map a term, we end up arguing over the map thereby eclipsing the dynamics the term points toward. It's why Ishmael shares in *Moby-Dick* that *true places* are *never mapped* (2004, 99). They can't be. In the act of selecting one reality, a map deflects others. Even through revealing, a map can distort and conceal.
- L But we can't just let the term sit. Usage, by default, sketches a map. And even if people argue over what counts as the map, such work *is* valuable. It adds to the dialectical process of deepening our understanding. Look at what happened with zoopoetics. Derrida first used the term in his phrase "Kafka's vast zoopoetics" (2008, 6). At first, the map just pointed toward the fact that animal representations infuse Kafka's storytelling.
- M And not just his storytelling, but stories and myths and language the world over. From Turtle Island to phrases such as wolfing down food.
- L But Derrida's use, at first, focused on Kafka. Others expanded the map to include the sheer vastness of animal presences within the literary and cultural imagination. We cannot shake animals out of our stories, our poems, our language, our consciousness. Poiesis, the making of a story, depends upon animals.
- M Then, as we know, the map of zoopoetics extended to include the study of how animals have their own processes of poiesis, and not just the making of webs or nests, but also the clicks within clicks within clicks of sperm whale what to call it? Semiosis? Poiesis? Language? And many species, including spiders, have the agency to undergo "ontological and semiotic innovation" in response to where and when species meet, to echo Haraway (2008, 240).4
- L As I see it, four main categories of zoopoetics exist. We could, perhaps, use these categories to point toward what arboreal poetics might include.
- M Perhaps, but categories always break down. As *Moby-Dick* queries, how do you map "chaos bewitched" or the "howling infinite" or Ahab's soul or Ishmael's grief (2004, 43, 165)? If we outline some categories, it has to be within the understanding

³ This line alludes to Kenneth Burke's terministic screens.

⁴ For more on sperm whale poiesis, see Moe's "Aristotle's Poetics & Sperm Whale Poiesis, a Dialogue"; for more on spiders, see Moe's chapter "Vibrational Poiesis of Insects and Arachnids" in *Ecocriticism and the Poiesis of Form*.

- that there is something about zoopoetics and arboreal poetics that is vast - that cannot be fully represented through a categorical map.
- L Of course. But aren't you tempted? I mean, one of the phrases that has stuck with me over the years is from an obscure line by William Carlos Williams: "Chaos | feeds the tree" (1988, 238). He uses the term before chaos theory, though chaos theory - with its emphasis on fractals, turbulence, and bifurcating patterns of (dis)order - can be a great way to further enrich his insight.
- M I am tempted. If chaos feeds the tree, perhaps chaos feeds the poem, too. Such a statement points toward a deep kinship between the tree and the poem.
- L And think of how arboreal poetics might frame all of *Moby-Dick*, for Ishmael writes "out of the trunk, the branches grow; out of them, the twigs. So, in productive subjects, grow the chapters" (2004, 401). Chaos, no doubt, feeds the unfolding, branching form of Melville's masterpiece not unlike the unfolding, branching processes of trees in an old growth forest.
- M I feel as though such a space in language is sacrosanct. And if we just 'map' it, then we have the epistemological understanding of how chaos feeds the poem and the tree, but not the ontological experience of the relationship between chaos, language, and the tree.
- L Or, perhaps, the relationship, in the cosmos, between chaos and any manifestation of a bifurcating form... whether it be a tree; or an artery branching into capillaries; or a river splitting into a delta; or an idea branching into chapters, paragraphs, sentences, words, and sounds.
- M How do you map that?
- L We should at least try, proceeding, though, with openness and caution. I still think the categories that have emerged in zoopoetics could be helpful.
- M And, right now, there are four overarching categories.
- L Yes, starting with Derrida's initial phrase. They are as follows: Zoopoetics includes (but is not limited to) an exploration of...
 - the ways in which nonhuman animals infuse the literary and cultural imagination, the world over;
 - 2. the ways in which nonhuman animals, in their own right, are makers, undergoing processes of poiesis (this may be a quibble, but zoosemiosis doesn't go far enough; zoopoiesis, on the other hand, foregrounds the act of making signs rather than just the signs themselves);
 - 3. the ways in which, to echo Haraway, animals (including humans) experience "ontological and semiotic innovation"

- when and where they meet (2008, 240) interspecies interactions shape poiesis;
- 4. the ways in which zoopoiesis in all of its manifestations raises ethical questions and actions given the fact that we live on a shared planet.⁵
- M We switch between 'poetics' and 'poiesis' with intention; for clarity, it might be good to revisit the nuances of these terms.
- L Sure enough. I see 'poetics' to be the study of 'poiesis'; and 'poiesis' is the *act of making* in all of its verb-ness, so to speak. Though the word 'poiesis' functions like a noun, it is like the word 'environment' which holds the verbal, *to environ*, as central to it being a 'noun' (see Mazel 1996).
- M So arboreal *poetics* involves the study of arboreal *poie- sis* which raises the question, what categories might be most beneficial to understand and explore any and all poiesis involving trees?
- L Yes.
- M Well, concerning the first category, representations of trees (like animals) infuse the cultural and literary imagination, the world over. So many Myths involve trees. So many stories and poems. The massive tree in Norse Mythology...
- L ... Yggdrasil...
- M ... yes, to the vast cedar forest in the *Epic of Gilgamesh*. Olive and laurel trees loom large in Greek Mythology.
- L And we have the Tree of Life... and the Tree of Knowledge...
- M ... and we have the Pear Tree in Hurston's *Their Eyes Were Watching God*, and the tree-scar in Morrison's *Beloved*. Representations of trees infuse the poetry of Merwin, the poet-planter. He might be one of the few humans to have actually planted a *forest* over five decades; each one of his poems, too, can be seen as a planting. Also, a host of leaves tremble in e.e. cummings' work.
- L And we have everything from Tolkien's talking Ents, to Pixie Hollow, to the trees in the movie *Avatar*, to the Ewok village, to the Bristlecone Pine of *ISLE*, to the Maple Leaf on Canada's flag and countless more examples of how representations of trees infuse and shape stories and culture.
- M This category of arboreal poetics is, like representations of animals, something *vast* (to echo Derrida) and worthy of study.

⁵ Reducing zoopoetics to just four categories risks undermining the depth of each category as well as the rich messiness of the borders between each category. For more on zoopoetics, see Driscoll and Hoffmann's edited collection, *What is Zoopoetics*? (2018).

- L What are your thoughts on the second category? The possibility that trees are, in their own right, makers - how they may engage in processes of poiesis not unlike animals who have the agency to make and respond to signs?
- M Concerning the second category, biosemiotics has shown that from the cell "all the way up" life happens through processes of semiosis to echo Wendy Wheeler's idea from "The Biosemiotic Turn" (Wheeler 2011, 270). An interpretive agency or protoconsciousness is at work when a cell draws on the inert DNA, reads it, and figures out what to become (Hoffmeyer 2008, 32). If cells can do this, we should not be surprised that trees (on a much larger scale) are makers too. They communicate with each other across mycorrhizal networks. They make signs. A wounded or disease-stricken Aspen tree sends chemical signatures to the rest of the grove.
- L I appreciate how you begin with the question of a tree's agency. That's an argument that needs to continually be made. Even if someone hesitates to see a tree as having an agency to make, send, and respond to signs, we can see trees as makers of their own materiality. They draw on earth, water, air, in order to become. They make needles or leaves; they make flowers or cones.
- M But the moment someone realises what a flower or cone actually is, the idea of tree-as-maker deepens.
- L Especially across Deep Time. It's important, I think, to recognise that arboreal poiesis includes the present, yes, but also the processes of poiesis across the Deep Past on into the Deep Future. Of course, cummings wrote of the "leaping greenly spirits of trees" (1991, 663). Trees don't leap relative to humans, but relative to trees, a branch might take a century in order to "leap forth" - especially on an Ancient Bristlecone Pine.
- M True enough. And, as we have discussed, plants existed on the planet first without any seeds. It took a journey across 100 million years for plants to compress a text of their form into a seed. That process depended upon biosemiotics, but I also see the journey of making a seed, making a cone, across Deep Time as an act of poiesis.
- The mere fact that a Bristlecone Pine grows from a seed exemplifies a poiesis across Deep Time that people often take for granted.
- M People may doubt the sanity of this discussion, for we are teetering upon the idea that a forest has consciousness with a Deep Past. But that's why biosemiotics is a game changer. If a cell has an agency to read and respond to the text of DNA - if a cell, that is, has a kind of 'knowingness' - then why should anyone doubt that a forest, too, has a kind of knowingness? The know-

- ingness of a cell, of a tree, of a forest, is all grounded in the act of poiesis, in the present and across Deep Time.
- L The flora of our gut is its own biome of swarming bacteria, that, like a forest, is constantly in a (un)making process.
- M Good point. Micro- and macro forests. All acts of poiesis. And isn't it intriguing that gut bacteria is more animal-like than plant-like, but we call it "flora"?
- L A forest of animal-critters. At any rate, trees are makers. This idea is something that arboreal poetics can include as part of its map.
- M Concerning the third category well, things get complicated.
- I. How so?
- M Well, the third category we outline for zoopoetics has to do with one species experiencing a breakthrough in their making, their poiesis, through an attentiveness to another species' way-of-being. So, with trees, does this dynamic go two ways? Do trees experience an ontological or semiotic breakthrough through an attentiveness to another species? How can anyone 'prove' that a tree has agency in its knowingness, in its attentiveness to another species? I can see many people dismiss such a claim.
- L Before we tackle that question, let's focus on whether or not humans experience a 'semiotic and ontological innovation' in their poiesis through an attentiveness to trees.
- M Sounds good. I have no doubt that humans have, at times, shaped the form of their poiesis in response to their engagement with trees. Trees have shaped human poiesis.
- L This should be self-evident. Think of Muir's passage on climbing a tree during a windstorm.
- M Exactly. He infuses a whole paragraph with onomatopoeia, so the sounds of the storm blasting the tree and forest around him become a palpable presence in human language. It's that "keen metallic click of leaf on leaf" and the "profound bass of the naked branches and boles booming like waterfalls" (1997, 470).
- L And there is also the tree-climbing passage in Jewett's "A White Heron". As Sylvia climbs the tree, the language behaves differently than other passages in that story. The sentences, phrases, and sounds respond to that sacrosanct space where the human meets the tree, to echo/extend Haraway's title *When Species Meet*.
- M So, there is a similarity here between arboreal poetics and zoopoetics.
- L Yes. And to circle back to your question, true enough, it might be difficult for some to think of a tree has having a kind of agen-

⁶ This category is thoroughly explored in Moe's Zoopoetics: Animals and the Making of Poetry (2014).

cy to experience an ontological or semiotic innovation in their poiesis; however, how did a grove of trees, collectively and individually, figure out how communication is possible? How did the chemical lexicon of Aspen, for instance, become? Some people hesitate to ascribe agency to plants. Trees have no centralised 'brain'. But if biosemiotics is accurate - if a cell has an interpretive agency so as to know what to become - then it makes sense (as we have discussed earlier) that an organism made of cells, too, has agency.

- That gives me a thought. Symbiosis depends upon a poiesis, a making, that arises out of that rarified space where and when species meet. Ample evidence exists that shows how trees become symbiotically engaged with other species. The making of a forest, the poiesis of a forest, depends a great deal upon ontological and semiotic innovations where and when species meet.
- L A making kin, so to speak. And all we are trying to accomplish here is to sketch a rough map of what an arboreal poetics could include. The poiesis of a forest is an eco-poiesis; it involves all organisms of the ecosystem. So, the third category of arboreal poetics is possible; we can focus on the innovations trees have discovered through interactions with other species, across Deep Time, in order to become.
- M And it could explore the ways in which humans have discovered innovations in their poiesis through an attentiveness to trees, as demonstrated by Muir and Jewett. And yet...
- L Keep going.
- M ... I think we are going to need another category for arboreal poetics. It seems closely related to this third category as it involves poiesis across tree-human boundaries - and we have nudged up against this idea before. But it seems that the concept of arboreal poetics might point toward a deeper kinship between human language and trees that needs to be articulated.
- L Are you thinking of how chaos feeds the tree and the poem? How both bifurcate?
- M Precisely. Even though we have discussed bifurcation before, the whole concept of arboreal poetics puts it in a new light.
- L I like the idea of revisiting this concept now; then we can circle back to the category involving ethics.
- M Sounds good. Really, any ethical consideration for trees will be enriched if we can adequately articulate the ideas surrounding bifurcation, trees, and human language.

- L To recapitulate our other discussion, Wendy Wheeler discusses the fractal nature of bifurcation to argue that biosemiosis, too. manifests itself across micro- and macroscales.8
- M Yes, in The Whole Creature, she says, "just as the 'tree of life' which describes evolution itself is also found in other natural systems of bifurcation (plants: lungs: blood supplies: river deltas, etc.), so we should not be surprised to find that the elaborated system of semiosis discovered in human cultural evolution is also found, in simpler forms, at every stage of life". She sees the ongoing process of making and discovering semiosis as a kind of self-taught "education" (2009, 126), across, it is implied. Deep Time.
- L Really, an arboreal poetics could include the process of poiesis of any kind of bifurcating pattern.
- M In our earlier discussion, we tentatively suggested that bifurcation is a law of the cosmos, but the more I ponder such a claim. the more I see it as true.
- L If not a law, most definitely a *habit*. It is haunting that the word 'dendritic' points toward trees - but humans also use that word to describe everything from neural networks that make animal consciousness possible to the fern-like, dendritic crystallisation that emerges when snow sublimates directly to a vapour, skipping the melting-into-water stage.
- M There could be a catch, then, namely that bifurcating patterns emerged prior to the life of a tree. As we have discussed, the bifurcating pattern is found within the sage energy of the atom, and it manifests itself across the categories of element, plant, and animal. So, an arboreal poetics is just one manifestation of bifurcation. Not the first. Perhaps the most striking, though, among plants.
- L Are you saying that, yes, trees and language bifurcate, and that they therefore share a deep kinship, but that there is something prior that makes the kinship possible?
- M And the "something prior" is that bifurcation is a law or a habit of the cosmos, and its logic must originate within the logic of the atom, prior to any cell. Ani DiFranco perhaps said it best in her song, "The Atom", when she speaks of the "magnificent consciousness incarnate" within the Atom. 10 Part of this incarnated consciousness includes the energy of bifurcation. So, arboreal poetics foregrounds the tree as the bifurcating phenom-

⁸ The "other discussion" refers to the second dialogue, "Poiesis", forthcoming.

⁹ This idea of "sage energy from the atom all the way up" emerges and anchors the argument in Ecocriticism and the Poiesis of Form.

¹⁰ DiFranco, A. (2008). "The Atom". Red Letter Year, Righteous Babe Records.

- enon, when, in reality, trees and human language are simply manifestations of a bifurcating energy that infuses the cosmos, from the atom all the way up.
- L I agree, but, at the same time, culturally, I don't think there is a better symbol for bifurcation than that of the tree. Perhaps the best way to coalesce the wild micro- and macro bifurcations of the cosmos into a starting point for exploration is through the term, arboreal poetics. Poiesis involves bifurcation, like a tree.
- M Perhaps. I fear, though, that people will stop at the tree and not push further back to the original energy that brings forth the tree. Where did bifurcation come from?
- L The "root of the root and the bud of the bud ... of a tree called life" - but is cummings right (1991, 766)? I don't know. Your concern is valid. Do we stop at the bud, or do we search for the bud of the bud? Think of this, though, If there is a sage energy of the atom, and if part of that energy tends toward bifurcation, then yes, there is a kind of knowingness at work from the atom all the way up. One could say that there is a knowingness at work in the creation of river deltas as well as the bifurcation of arteries into capillaries. However, is not the knowingness of a tree at a different level than the knowingness of a river delta? And do not the bifurcating patterns at work in language reach a different kind of degree than that of a tree? I am not trying to create a hierarchy of knowingness and bifurcation, but the fact that a tree is alive lends itself to earning its juxtaposition with the bifurcation we see in language. I mean, let's look at the sentence we diagrammed from Merwin's "Place" (1988, 64) [fig. 1].
- M It's all right there. The leaping greenly spirits of trees...
- L ... and the leaping greenly spirits of language...
- M And although diagramming sentences was developed, first, with the English language, there are ways to modify nuances to diagram sentences from all languages.¹¹
- L Otherwise translation would not be possible.
- M So, what strikes you about the diagrammed sentence?
- L For starters, the way we have etched it foregrounds the bifurcating and fractal pattern of a tree. It therefore demonstrates that language, and therefore thought, bifurcates. It just does it. It's a habit. We don't need to diagram the sentence in order

¹¹ Somehow, I completed all of my education without ever diagramming a single sentence as a student. Three years ago, I taught myself and have integrated it into my teaching practices. Like the semiotics of mathematics, every line is fraught with meaning. In general, nouns and verbs sit on horizontal lines. Modifiers sit on diagonal lines. No other representation, it seems, better reflects the dendritic crystalline structures of thought. Along with the connection to bifurcating trees, I like to think of every diagrammed sentence as a flake of snow floating through consciousness.

- for it to 'make sense' to us. Diagramming it simply foregrounds the bifurcating patterns driving the way language leaps toward thought.
- M And the diagramming reveals how a sentence resembles a fractal doll as one similar pattern nestles inside a larger similar pattern. Or, better yet, the sentence is like a single sheet of origami paper. One can make a butterfly with 12 folds; or a sea-turtle with 28 folds; or an elephant with 34 folds; or a dragon with around 46 folds depending upon how you shape the wings and tail. Unfolding each of the single sheets reveals patterns of folded paper that vary in the degree of complexity.
- L This glimpses the mystery of Merwin's enjambment, for the line breaks and stanza breaks (all couplets) disrupt the long arc of the sentence, folding thought. Sure, call it sustained enjambment, but the way that the unit of the couplet and then just a single line sits, with heft, in the space/time continuum of the blank page is haunting. It adds another layer to the bifurcations already inherent within the grammatical logic of the sentence.
- I like this line of thought as it revisits one of the basic (and mystifying) questions of prose and poetry: what is the difference between language in the form of a prose sentence and language in the form of poetry? Especially when we consider spoken manifestations of language. Who cares how it is written on paper! I mean, I care, a great deal, but if we agree that language bifurcates; that bifurcation is something essential or inherent in language: that this bifurcation shares a deep kinship to the bifurcating energies manifested not only in trees but also in skeletons, blood streams, river deltas, and lightning strikes; that this bifurcating energy can be visually manifested through the art of diagramming a sentence; that this bifurcating energy is the very *stuff* of poiesis - the makings of language, makings of trees, makings of the Earth; if this bifurcating energy in language has its origin in the energy of sound, wavering into syllable, wavering into word - if all of this is, indeed, inherent within the grammatical logic of what we call a sentence or a breath of language sketched as an open-form poem - then it should expose the truth that bifurcation is a habit of the cosmos.
- L So, then, what does it mean to read? Think of the *scansion* of a poem, and how *scansion* comes from the Latin *scansio* meaning *act of climbing* and how one's feet start moving when finding the rhythm of a poem, and that motion makes one start to climb, to ascend, to seemingly move through the poem in an upward direction even while reading downward. One sentence arcing across lines and stanzas grants us the intimate experience of climbing through a bifurcating energy manifest in language. One must attend to the line, the stanza, and the overall gram-

- matical time of the poem, while reading down the page and yet an audible performance of the poem empowers us to climb, limb by limb, branch by branch, line by line, skyward.
- M To put it this way: reading a sentence, across lines and stanzas, is a scansion, a climbing, which deepens further kinship between chaos feeding both the tree and the poem.
- L One could do worse than be a climber of trees.
- M Well said. And there is more to discover in the diagram of Merwin's sentence. I am drawn to the *leaping energy* that explodes out of the preposition 'with'. With what? With the sun, the water, and the clouds. Three objects of the preposition, each with a participle adjective, which all explode into the canopy of this language-tree.
- L And look at the elliptical clause: in the earth full of the dead... in the earth (which is) full of the dead. What energy is behind this leap? We don't need "which is" - the meaning emerges regardless of the omitted words. But when we diagram it, we see the leap to another implicit clause that keeps the sentence reaching skyward.
- M And it is a line, with epic weight: in the earth full of the dead. All the extinctions. Past and current. All that has been destroyed and consumed. Your comment, though, makes me think even further about the kinship between all the leaps that make life happen - the leaps across Deep Time. The leap from matter to cell. From plant to seed. The leap to blossoms. The leap to zygote.
- L The leap from sound to syllable.
- M At one point in the ongoing conversations surrounding zoopoetics, a reference to Emerson's "The Poet" was made. Recall how Emerson wanted a "metre-making argument ... a thought so passionate and alive that like the spirit of a plant or an animal, it has an architecture of its own, and adorns nature with a new thing" (2000, 290).
- L And Whitman gave us his *Leaves of Grass*.
- M True enough. But Emerson points toward a deep connection between the spirit of an animal and a spirit of a plant that both can shape the form/architecture of language. But the crux of the matter is simply the fact that cells, plant or animal, bifurcate. So does language. Any architecture - whether plant, animal, or poem - depends upon bifurcation.
- L And as you suggested earlier, the architectures of the dendritic crystallisation of snow bifurcate, as do tendrils of vapours or cloud wisps or vines. As does any turbulent fractal.
- M ... knots in the grain to echo Snyder.
- L Which might be another excellent source to think through an arboreal poetics founded upon the bifurcating and fractal forces of chaos and turbulence.

- M Chaos does, indeed, feed the tree.
- L And the poem.
- M I wish we could linger longer in these ideas surrounding the deep connection between the poiesis of human language and arboreal poiesis, but as we discuss, I sense the undertow of eleav within the ode.
- Yes: the earth full of the dead. As humans, we (re)discover on a daily basis just what a marvellous planet this is, while, at the same time, we devour the Earth directly and indirectly in cataclysmic ways. Change is happening. Too fast.
- м Achebe's Things Fall Apart.
- L Well, and the rough beast slouching toward Bethlehem is not only the slow wheeling of colonialism, but also, right there with it, the dawn of the anthropocene itself.
- M It may seem counterintuitive at first, but if we are going to discuss the final category of arboreal poetics - the ways in which trees impact our sense of ethics - I want to begin back with Gilgamesh. I recently taught The Epic of Gilgamesh. It is a fascinating read, and it articulates with great clarity the million dollar question concerning humanity's relationship with trees, and by extension, with the Earth.
- L It's been awhile since I read Gilgamesh, but I remember how Gilgamesh and Enkidu totally decimate the Forest of the Cedars after slaying a monster.
- M Exactly. The gods placed the monster, Humbaba, within the sacred forest to act as guardian. I say sacred as the mountain of cedars is the "dwelling of the gods" (2019, 37); moreover, the beginning of Tablet V establishes an almost proto-ecological understanding of the rich life in the forest's canopy. It lists, with exquisite and aesthetic detail, a whole host of birds, insects, and mammals all generating this "rhythmic din" and how the trees themselves, full of abundance, "ooze" out "resin" that's "dribbling down like raindrops" (37).
- L Interesting. The description feels more like Jewett's and Muir's trees that are not 'wild' but actually a home. Not dangerous at all. Full of life and sounds and colour.
- M Exactly, and it makes the clear-cutting of the forest that much more tragic. After slaying the monster, they do, as you remember, make a "wasteland of the forest", so much so that while Gilgamesh slashes tree after tree, Enkidu keeps "looking for the tallest one" (2019, 47). They find it, cut it down, make a glorious door out of it, and present the door to Enlil, the god of the Earth. Long story short, they also kill the Bull of Heaven, and the gods decide they have gone too far. For slaying Humbaba, decimating the forest, and killing the Bull of Heaven, one of them must die. And here's where it gets really interesting. En-

- lil likes the door, sees Gilgamesh as the leader, and so argues that Enkidu should be the one to die, which is what happens.
- L I guess I don't guite see it vet. What's the million-dollar guestion?
- M Let me backup. *Gilgamesh* is the oldest written story that we have; it reaches back nearly 4,000 years. I find it moving, and depressing, and yet exhilarating that this story raises the same question that we ask today. One cannot build a city without turning something sacred (a forest) into a door. How far is too far?
- Sure. I see it. We need (or think we need) a door. One cannot have a building, nor a city, without doors. What a powerful symbol. So, as a cautionary tale, Gilgamesh and Enkidu clear-cut a forest for one door, and the consequence is that one of them must die. That's where we, as humans, are still at! We have not yet figured out how to order our lives so that we don't cause unnecessary death by crossing the line. We ransack the Earth for plastic, and ocean-life dies. We need plastic for blood transfusions, sure, but not to carry Oreos around. Who draws the line? How can the 'needs' of a society be met in a way that does not consume the entire Earth? In a way that does not turn every sacred corner of the Earth into a resource?
- M You see it. This is at least a 4,000 year old guestion. Probably older, of course. There are no easy answers, but the work of a story is to carry questions and point toward insights. Another profound insight that emerges from the text is the fact that Enlil likes the door and so he preserves Gilgamesh's life. He lets someone else die who doesn't matter as much to him.
- L That is haunting. Every single *thing* we consume contributes to the decimation of the planet. Is it worth it? Is the *door* worth it? Each of us, if we are honest, has a bit of Enlil inside us. I admit it. I like air-conditioning on a 100 degree day, and if I am honest, even when it is in the upper '80s.
- M And I like driving a Prius up to a trailhead to hike in nature.
- L Gilgamesh foregrounds the ethical weight of the fact that something dies in order for us to drive to the mountains in an airconditioned car.
- M We often think that an environmental consciousness is something that emerged recently, but it is a fact that Gilgamesh invites us to live out questions that prompt an environmental ethic. When is it worth it to turn a sacred forest into a commodity? And perhaps on an even more fundamental level, the story asks what is the Earth?
- L That is definitely a question worth living out across the decades. In a sense, Sylvia in "A White Heron" recognises that her climbing of the tree makes her a "housebreaker" (1994, 676) - she sees the forest, the Earth, as a home. Gilgamesh also demonstrates how the decimation of the forest took out not only the

trees, but also the homes of all the species who filled the canopy at the beginning of Tablet V. This idea of the *oikos*, the idea of the Earth-as-home, seems present right at the moment when the headwaters of Western civilisation sliced a line between city-as-home and forest-as-other.

- M You've mentioned "A White Heron" a couple of times. There's something more there, I sense?
- L There is, and it relates to *Gilgamesh*. As Sylvia climbs the tree, Jewett compares the tree to a "great main-mast to the voyaging earth" (677).
- M I had forgotten that detail.
- L It is quite profound. From the top of this tree this main-mast, this crow's nest of the Earth – Sylvia witnesses the social intelligence and dynamics between the two herons.
- M By witnessing this interaction, she, in a sense, sees the birds and the forest as something sacred, and she cannot let the ornithologist/hunter know the secret as to where the herons' nest lies.
- L You remembered that part!
- M I did. But what a haunting image.
- L Jewett establishes the 'main-mast' as the last old-growth tree within a second generation forest, pointing toward issues surrounding deforestation.
- M We are losing our main-masts too fast. I remember one time, as an arborist, pruning a mature Plains Cottonwood with its wild, chaotic branchings. (I once thought the best way to explain to someone the canopy of a Plains Cottonwood is to imagine Medusa's hair alive and writhing, flexing, flickering.) Anyway, this tree had a crown well over 100 feet in diameter, and so three of us were up there, working on the tree's three massive leads, with all this voluminous space between us. A hawk swooped in and circled through the vastness of the canopy. It was strange, of course, because trees look somewhat big from the ground, but then, they can also seem so tiny. We can walk past a tree fairly quickly. But the hawk's circling presence within the canopy amplified the enormity of where I sat. Though some readers may be surprised that Sylvia can't tell the hunter/ornithologist the location of the White Heron's nest, after seeing a bird swoop around from the vantage point of the canopy of massive tree - and after witnessing the social dynamic between two Heron's - it makes perfect sense. People climb up to a crow's nest to find a sense of direction, to look for land, to look for danger.
- L Jewett suggests a view from the top of one of the Earth's 'masts', a towering tree, just might give the perspective to yank us out of our narcissistic gaze in order to actually see the health and needs of the planet. And it is from the main-mast where she

sees the Earth as something sacred. Unlike Gilgamesh and Enkidu, she doesn't cross the line. She doesn't turn the white heron into a commodity. She could have earned ten bucks if she shared the secret.

- M It seems like an insurmountable challenge: having an environmental ethic. Every generation, it seems, must work through these questions, again and again, so I am heartened (and yet discouraged) by the ways in which stories get this important work done. Just by discussing Gilaamesh and "A White Heron". we glimpse the long, long tradition of trees being integral to grappling with ethical questions surrounding how humans live on this shared planet. A tradition of 4,000 years of storytelling, at the very least.
- L It's only two sources, but it seems sufficient evidence to say that the map of arboreal poetics should include (or already does include) the category of ethics. More work needs to be done teaching stories that stir the questions one must ask if we have any hope of gaining wisdom in how to live on the planet.
- M So, we have the following five categories as a starting point of arboreal poetics.

One: arboreal poetics recognises and explores how trees infuse the literary and cultural imagination, the world over.

Two: it recognises and explores arboreal poiesis, that is, the fact that trees are always already in a process of making. They are makers, individually and yet collectively across Deep Time. Like all life, an interpretive agency from the cell all the way up is something that makes poiesis possible. As makers, they also make and respond to innumerable chemical signatures. This is a kind of knowingness.

L And three:

Arboreal poetics recognises and explores intra- and interspecies interactions that spur "ontological and semiotic innovation" to extend Haraway's focus on when and where animals meet. This could be the language of a human writer responding to the presence of a tree. This could also be a tree initiating and sustaining a symbiotic relationship with another species, such as an ant, within a forest.

M And on an even deeper level - four: arboreal poetics recognises and explores how bifurcation is a law of the cosmos. Trees bifurcate. So does human thought within human language. Fernlike dendritic snow crystals bifurcate, and so does any turbulent liquid or gas. Trees are by no means the first manifestation of bifurcation within the cosmos, but because of their sublimity and grandeur - and because of the way they infuse the cultural imagination - they are a powerful way to foreground the

- deep kinship between human language, trees, and cosmological forces driving bifurcation.
- L And finally, five: even if someone has never climbed a tree, we can see trees as the great *main-masts to the voyaging earth*. They provide a place to reflect, to ponder. They grant an opportunity to revisit, to develop, to revise, and to refine an environmental ethic an ethic that sees, as self-evident and as a grounding philosophical principle, the sacredness of a tree, of a forest, and of the Earth. From this starting point, we can further refine the ethics surrounding when and how to make a door.
- M The five categories are definitely a start, but you know that I prefer the messiness of dialogue over the drawing of lines necessary to make categories.
- L We need both, and the lines drawn are simply a start. Perhaps we should add the fact that when anyone carves something, or whiddles, or spins wood on a lathe into a bowl - that such an act falls within arboreal poetics. The making of something out of wood.
- M Most definitely. In *Moby-Dick*, Ishmael discusses the art of "whales in paint; in teeth; in wood; in sheet-iron; in stone; in mountains; in stars" (2004, 377).
- L The *whales in wood* represents a merging of an arboreal poiesis and zoopoiesis.
- M And in circling back to Melville, I have a thought. This discussion of bifurcation and poiesis is making me see sentences in a whole different light.
- L How so?
- M Well, as I think about my time as an arborist, climbing trees, pruning trees, and this discussion on sentences, I think we can push things further.
- L Keep going.
- M There are times when I still go and climb an old tree just to exist within the canopy. Is that not what happens when we diagram a sentence? I have students diagram sentences. One class became quite obsessed. We read and studied a 134 word sentence on Ahab's torment, and they wanted to diagram it. 12 I'll

¹² The sentence reads, "Often, when forced from his hammock by exhausting and intolerably vivid dreams of the night, which, resuming his own intense thoughts through the day, carried them on amid a clashing of frensies, and whirled them round and round and round in his blazing brain, till the very throbbing of his life-spot became insufferable anguish; and when, as was sometimes the case, these spiritual throes in him heaved his being up from its base, and a chasm seemed opening in him, from which forked flames and lightnings shot up, and accursed fiends beckoned him to leap down among them; when this hell in himself yawned beneath him, a wild cry would be heard through the ship; and with glaring eyes Ahab would burst from his state room, as though escaping from a bed that was on fire" (2004, 285-6).

mention, though, that they did not want to diagram the sentence in the chapter "The Whiteness of the Whale" which continues for nearly two pages.

- L One day, they might.
- M Perhaps. I just want to make it clear that a sentence exhibits an *arboreal poiesis* regardless of the content. Melville's sentences branch and bifurcate in the most wild patterns. I am beginning to look at and also experience how each sentence is its own tree. With some sentences, one can climb and hang out in the canopy for a long time. Others, not so much.
- L I like that. It's as if you see Melville writing old-growth sentences...
- M ... growing from his old-growth mind.
- L And I have a final thought as well.
- M What's that?
- Well, we have been discussing bifurcation as a habit of the cosmos. In *The Whole Creature*, Wheeler aims to demonstrate the "habituation of semiosis in the history of the cosmos" (2009, 123).
- M What's difficult for me to see, though, is how one could find evidence of a kind of *semiosis* in the elements. Cells have DNA, but molecular structures seem governed by forces, not signs.
- L True, but this is the crux. If indeed there is an habituation of bifurcation across the *history of the cosmos*, what is it that prompts the split? What is it that drives a seedling to split toward branches? Or, as I hinted at earlier in this discussion, what drives a river to branch into a delta, or an artery to branch into capillaries?
- M ... or an idea to branch into chapter, paragraph, sentence, word, or sound?
- L Exactly. And what drives the dendritic tendrils of the Mandelbrot set toward infinitesimal bifurcations? I know we have put much thought into protean energy being the source of such a leap you more so than I but I think protean energy eclipsed what is prior.
- M You think you have found a better way of thinking about the original energy of poiesis?
- L I think so, perhaps.
- M Well what is it?
- In one word, Eros. In a couple of words, well, the Greeks saw Eros as one of the primary, necessary forces of the cosmos that is at the *beginning* of everything, and I don't think Hesiod was wrong...

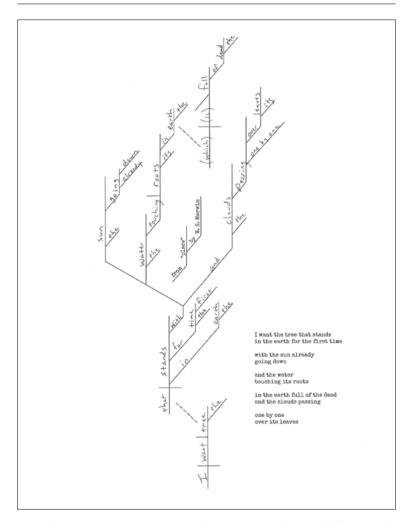


Figure 1 Diagramming a sentence from Merwin's "Place" readily foregrounds the branching, bifurcating, dendritic energy of thought; such a demonstration suggests a deep kinship between thought and the energy that brings forth the form of a tree

Bibliography

- Achebe, C. (2017). Things Fall Apart. New York: Penguin.
- Cummings, E.E. (1991). Complete Poems, 1904-1962. Ed. by G.J. Firmage. New York: Liveright.
- Derrida, J. (2008). The Animal That Therefore I Am. Ed. by M.-L. Mallet, transl. by D. Willis. New York: Fordham University Press.
- Driscoll, K.; Hoffmann, E. (2018). What is Zoopoetics?: Texts, Bodies, Entanglement. New York: Palgrave. https://doi.org/10.1007/978-3-319-64416-5.
- Emerson, R.W. (2000). The Essential Writings of Ralph Waldo Emerson. Ed. by B. Atkinson, New York: Modern Library.
- Gilgamesh (2019). The Epic of Gilgamesh. Ed. by B.R. Foster. New York: Norton Critical Edition.
- Haraway, D. (2008). When Species Meet. Minneapolis: University of Minnesota Press.
- Haraway, D. (2016). Staying with the Trouble: Making Kin in the Chthulucene. Durham: Duke University Press.
- Hillman, B. (2009). Practical Water. Middletown: Wesleyan University Press.
- Hoffmeyer, J. (2008). Biosemiotics: An Examination into the Signs of Life and the Life of Signs. Ed. by D. Favareau; transl. by J. Hoffmeyer and D. Favareau. Scranton: University of Scranton Press.
- Jewett, S.O. (1994). Novels and Stories. New York: The Library of America, 1994. Hurston, Z.N. (2006). Their Eyes were Watching God. Harper Perennial.
- Mazel, D. (1996). "American Literary Environmentalism as Domestic Orientalism". Glotfelty, C.; Fromm, H. (eds), The Ecocriticism Reader: Landmarks in Literary Ecology, Athens: University of Georgia Press, 137-48.
- Melville, H. (2004). Moby-Dick; or, The Whale. MacMillan Collector's Library.
- Merwin, W.S. (1988). The Rain in the Trees. New York: Knopf.
- Moe, A. (2014). Zoopoetics: Animals and the Making of Poetry. New York: Lexington Books.
- Moe, A. (2019a). "Defining Zoopoetics". Animals & Society Institute. YouTube, 15 July. Moe, A. (2019b). Ecocriticism and the Poiesis of Form: Holding on to Proteus. New York: Routledge. https://doi.org/10.4324/9780429061134.
- Moe, A. (2020). "Aristotle's Poetics & Sperm Whale Poiesis, a Dialogue". Belletti, G.; Garelli, G.; Martinengo, A. (a cura di), La 'Poetica' e le sue interpretazioni: Aristotele tra filosofia, letteratura e arti. Bologna: Pendragon Press, 239-60.
- Morrison, T. (2004). Beloved. New York: Vintage Books.
- Muir, J. (1997). Nature Writings. New York: The Library of America.
- Wheeler, W. (2009). The Whole Creature: Complexity, Biosemiotics, and the Evolution of Culture. London: Lawrence & Wishart.
- Wheeler, W. (2011). "The Biosemiotic Turn: Abduction, or, the Nature of Creative Reason in Nature and Culture". Goodbody, A.; Rigby, K. (eds), Ecocritical Theory: New European Approaches. Charlottesville: University of Virginia Press, 270-82.
- Whitman, W. (1982). Poetry and Prose. New York: The Library of America.
- Williams, W.C. (1988). The Collected Poems of William Carlos Williams, vol. 2. Ed. by C. MacGowan and A.W. Litz. New York: New Directions.
- Yulianto, H.J. (2020). "Arboreal Poetics in Howard Nemerov's The Thought of Trees and Luis H. Francia's Lessons of a Tree". International Journal of Humanity Studies. https://doi.org/10.24071/ijhs.v3i2.2221.