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## Measured Chaos: EcoPoet(h)ics of the Wild in Barbara Kingsolver's *Prodigal Summer*

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### Abstract



Ecopoetics forms a human expression of the naturecultures that sustain us, enfolding us within an earth that is much more than a mere environment. In consequence, the ecopoet serves as a mediator between the multitudinous voices and lifeforms that take part in the song of the world. Weaving its way into the matter and texts of the world, human language—I argue in the wake of new materialism—provides the measure of and seeks inspiration in the apparent randomness and underlying design motivating the evolution of complex systems in the universe. I interweave approaches originating in Anglophone ecocriticism and ecophilosophy with ecopoetics—as Jonathan Bate and Scott Knickerbocker have defined it—with its close attention paid to the complex, interlaced fabric of the text. Barbara Kingsolver's ecopoet(h)ics draws from chaos theory, inviting readers to shift interpretative paradigms, moving away from linear, binary grids of logic and reading, toward integrating complex, overlapping systems of meaning. Focusing on Kingsolver's novel *Prodigal Summer* (2000), this paper argues that, as Snyder once put it, art is not so much “an imposition of order on chaotic nature, freedom, and chaos;” rather it is “a matter of discovering the grain of things, of uncovering the measured chaos that structures the natural world,” of revealing “the way [wild] phenomena actualize themselves,” including within a wild ecopoetic language.

*Keywords:* Ecopoet(h)ics, ecofeminism, wildness, enchantment, multispecies entanglements, chaos theory.

### Resumen<sup>1</sup>

La eco-poética constituye una expresión humana de las naturaculturas que nos dan sustento y nos sitúan en relación a una tierra entendida como algo más que un simple medio ambiente. En consecuencia, el ecopoeta funciona como un mediador entre las numerosas voces y formas de vida que configuran la canción del mundo. Abriéndose camino a través de la materia y los textos, sostengo que el lenguaje humano, visto a partir de los nuevos materialismos, proporciona la medida de y busca inspiración en la aparente aleatoriedad y el diseño subyacente que motiva la evolución de los sistemas complejos del universo. Aquí combino diferentes enfoques originados en la ecocrítica y la ecofilosofía anglófona con el concepto de eco-poética (siguiendo la definición de Jonathan Bate y Scott Knickerbocker) prestando particular atención al complejo entramado del texto. La eco-poética de Barbara Kingsolver se basa en la teoría del caos e invita a los lectores a cambiar paradigmas interpretativos, alejándose de las lógicas de lectura lineales y binarias, para integrarse dentro de complejos sistemas de significado. Centrándose en la novela *Prodigal Summer* (2000) de Kingsolver, este artículo plantea que, como ha señalado Snyder, el arte reside no tanto en “una imposición de un orden en la naturaleza caótica, la libertad y el caos,” sino que representa más bien “una cuestión de descubrir el grano de las cosas, de revelar el caos medido que estructura el mundo natural”, mostrando “la forma en que los fenómenos [naturales] se actualizan a sí mismos”, a partir de la inclusión de un lenguaje eco-poético salvaje.

<sup>1</sup> Many thanks to Mariana Avilano for her Spanish translation of my abstract.

Palabras clave: Ecopoética, ecofeminismo, naturaleza salvaje, encantamiento, entrelazamientos multiespecie, teoría del caos.

## Introduction

*Poetry [...] exceeds the poem.*

*It first lies short of it—an ethical stance as much as a raw state of consciousness. [...] Poetry] frees reality of limits; it does justice to reality's unfathomable depth, the infinite proliferation of sense it encapsulates. [...] It is a matter of taking poetry seriously, of helping the political integrate the poetic—the uncompromising project of which is to seek everywhere the right coincidence between humans and life as it is given to them, as it offers itself up to their necessity, a coincidence that will not bear a closed and fixed form since humans and life are open instances [...].*

*There's no way around it: the future will be poetic or it will not be—or it will be the disastrous continuation of an unavoidable defeat.*

*(Jean-Pierre Siméon, « La Poésie sauvera le monde », my translation)*

How can one ponder notions of randomness and design in relation to ecopoetics? One fruitful terrain may very well be laid out in Barbara Kingsolver's environmental writing, carefully crafted to take part in what Karen Barad calls the "exuberant creativeness" of the world (177). With the advent of chaos theory in the 1960s, scientists have reconsidered the very idea of randomness. In great part thanks to meteorologist Edward Lorenz, it was discovered that linear mathematics erroneously called onto randomness to account for unpredictable evolutions of complex systems. Rather than being purely random, it turned out, complex systems followed underlying patterns of self-organization invisible to humans' conventional reading grids, making scientists blind to interactions between various, dynamic systems and their most infinitesimal, initial conditions (Gleick 24). While many have long thought of literature as the result of uniquely human design and agency, Cheryll Gloftelty argues that "literature does not float above the material world in some aesthetic ether, but, rather, plays a part in an immensely complex global system in which energy, matter, and ideas interact" (xix). To substantiate my hypothesis that ecopoetics forms a human expression of the naturecultures that sustain us, enfolding us within an earth that is much more than a mere environment,<sup>2</sup> this paper looks for evidence that the ecopoet serves as a mediator between the multitudinous voices and lifeforms that take part in the chaotic song of the world.

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<sup>2</sup> My take on the concept of "environment" is prismatic, transcultural, and transdisciplinary, shaped by North American, Native American, and French thinkers, from philosophy and ecocriticism to multispecies ethnography and ecology. It relies for instance on Lakota writer Paula Gunn Allen's concept of "the sacred hoop", on Native American writer Jack Forbes' dismantling of the European concept of an environment (*Columbus and Other Cannibals*, 1972), and on Michel Serres' undermining of the concept: "Oubliez donc le mot environnement, usité en ces matières. Il suppose que nous autres hommes siégeons au centre d'un système de choses qui gravitent autour de nous, nombrils de l'univers, maîtres et possesseurs de la nature. [...] De sorte qu'il faut bien placer les choses au centre et nous à leur périphérie, ou, mieux encore, elles partout et nous dans leur sein » (Serres 60).

Kingsolver's poetic prose draws from chaos theory,<sup>3</sup> inviting readers to shift interpretative paradigms: moving away from linear, binary grids of logic and reading, one must integrate complex, overlapping systems of entangled matter and meaning. However, in connection with chaos theory, Kingsolver's sensuous, poetic prose and its texture represent aspects of her writing that have not received enough attention and that have not been analyzed from an ecopoetic perspective. My work in the field of ecopoetics precisely delves into the poetic texture of language to retrieve the material inspiration at the roots of it. As I unravel the fabric of poetic language, my aim is to reveal the craft of the ecopoet singing her way into a poetic inhabitation of the world. Furthermore, the ecopoetic texts I immerse myself in are so inextricable from an ethical, biocentric stance that, following the coinage ventured by French writer Jean-Claude Pinson, my research dwells on "ecopoet(h)ics," i.e. "poet(h)ics" that aim for that "different light", that "different language which may give meaning to our dwelling within the earth" (Pinson 11; translation mine).<sup>4</sup>

Ecofeminist novelist, short story writer, poet, and essayist Barbara Kingsolver writes of the wonders of the wild in a way that is informed by her training as a biologist and zoologist. "I think biology is my religion," says she in an interview (Perry 147). "Understanding the processes of the natural world and how all living things are related is the way that I answer those questions that are the basis of religion" (Perry 14). In keeping with Kingsolver's oxymoronic style of writing, her ecopoetics arises from a way of dwelling in the *oikos* that is open to the wild energy circulating through it and us, while highly cognizant of the complex mechanisms ecology and biology have shed light upon. Designed at a crossroads between several of the systems humans have developed to try and conceptualize the world, her writing grapples with science, myth, and poetry. Hence Kingsolver's preference for novelistic discourse that allows her in its dialogism to cross-pollinate various types of discourse. Cultivating the fertile soil of ecopoetic prose, Kingsolver meanwhile prompts us to question the soundness of our ethical stances regarding our relationships with the nonhuman. Compenetrating the world, her ecopoet(h)ics forms "intra-actions"—to take up Karen Barad's coinage and her theory of agential realism—with the myriad lifeforms that co-constitute our "naturecultures" (Donna Haraway). Following in the steps of Serpil Oppermann's thorough investigation, of creative materiality and narrative agency,<sup>5</sup> I propose that Kingsolver's ecopoetics both rests on and reflects the notion of *measured chaos*. "Measured" has to be understood here in the double sense of being marked "by due proportion" and "[regularly recurrent] rhythm" (*Merriam-Webster* n. p.). Be it at the level of content or form, this measured chaos takes part in a larger, contemporary project of

<sup>3</sup> This I have shown while dealing with her short stories, in "L'implicite dans 'Stone Dreams' de Barbara Kingsolver", and *La nouvelle-oxymore de Barbara Kingsolver : la révélation des écritures et l'écriture des révélations*, specifically in the chapter "La lecture du bruit : Chaos ou nouveau paradigme?" (149-60).

<sup>4</sup> "I have come to foreground the word 'poet(h)ics' to underline that poetry is not simply an art of language (that which is of interest to poetics). It seems to me that it carries greater ambition, when it comes to existence, on an ethical plane (that of our customary way of being into the world), striving for a different light and a different language to make sense of our dwelling within the earth" (Jean-Claude Pinson 11; my translation).

<sup>5</sup> Especially see Oppermann's "From Ecological Postmodernism to Material Ecocriticism" (2014).

reenchantment (Bennett, and Iovino and Oppermann 78, 88). In the case of Kingsolver, this project of reenchantment calls attention to the relational processes through which matter and meaning are entangled, constantly interwoven within fields and fluxes forming patterns that call for paradigmatic, transdisciplinary reading grids.

In many interviews and essays, Kingsolver goes back to her childhood growing up in the wild woods of Appalachia, in Kentucky. This, she insists, formed her education and her special breed of pantheism, combining science with a mystic reverence for the wonders of the world we wordy humans are enmeshed with. Kingsolver still relishes the taste of the wild—a concept referring to the instability of the material world as it eludes human design. In a typically ecofeminist way, Kingsolver invites us to savor the wild via her synesthetic recall of the corporeal experience of blending with the nurturing world around:

We knew just enough of our world to eat it alive, swallowing wildness by the mouthful, our hearts trembling with gratitude. We tasted the soft green stems stripped from tall grass stalks; like new asparagus. We picked blackberries that stained our tongues and colored our insides, we imagined, with the juiciness of July's heat. We ate cattail roots and wild onions and once captured a bucketful of the crayfish that scabbled through the creek. [...] Years earlier [...] I remember delicately tasting even moss and mud, so intense was my desire for union with the wildness of the woods. (*Last Stand* 13)

Lawrence Buell's assessment of Kingsolver's essay "The Memory Place" as being sentimentalized and stereotyped suggested wrongly that Kingsolver imagines places she has had no true intimacy with (*The Future* 72-76). Countering such a misprision of Kingsolver's work, this essay seeks to do justice to the ecopoet(h)ic value of her writing—to be experienced via her poetics as much as via the ethical responsibilities that stem from it<sup>6</sup>—writing that in fact springs from interconnections with the land and ecosystem it is embedded in. In the course of this paper, I will first tackle the ethics that pervades Kingsolver's novel, focusing on interspecies entanglements that reveal randomness and design. I will then turn to the reclaiming of human wildness and animality at play in this novel, which negotiates the design of genetic programming with the randomness of human liberty and free will. Finally, I will touch upon ecopsychological aspects of Kingsolver's "earth-based spirituality" (Starhawk 73) that materializes into an ecopoet(h)ics of measured chaos, directly inspired from the breath of Gaia.<sup>7</sup> Throughout, my analysis of Kingsolver's ecopoetic writing as a response to contact with the "flesh of the world" (Merleau-Ponty 280) is informed by the ecophenomenology of Merleau-Ponty and by David Abram's work (*The Spell, Becoming*).

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<sup>6</sup> For a cogent analysis of the relational ethics at the heart of Kingsolver's fiction, see Ceri Gorton's PhD thesis, (2009) *"The Things that Attach People": A Critical Literary Analysis of the Fiction of Barbara Kingsolver*.

<sup>7</sup> My understanding of Gaia theory I owe to ecofeminist scholar Riane Eisler ("The Gaia Tradition and Partnership Future: An Ecofeminist Manifesto," 1990) and ecopsychologist Theodore Roszak (*The Voice of the Earth* [1992] and "Where Psyche Meets Gaia" [1995]), both of whom refer to the then controversial work by biochemist James Lovelock and microbiologist Lynn Margulis. I am also indebted to writers such as Starhawk or Gary Snyder, as well as to Bruno Latour's recent rehabilitation of the Gaia hypothesis in *Face à Gaïa* (2015)—although I do regret that Latour's encompassing study neglects the seminal contributions of ecofeminists and ecopsychologists.

Kingsolver's work displays a sense of sacred organicity, an enchanting perception tied to the principles at the heart of both ecology and religion—inasmuch as religion can be understood at its core via etymology. The roots of the word “religion” can be traced to Latin, *relegere*, which means to read over, or to reread, and/or *religare*, meaning to relate, to bind or tie. Religion as a human concept may then well be reinvested from an ecopoet(h)ic and materialistic stance as an invitation to translate the book of nature, in search for what binds all lifeforms together, thereby dovetailing with ecology. Kingsolver's ecopoet(h)ics composes what Gary Snyder might have termed a “wild language,” as fundamentally wild as “consciousness, mind, imagination,” that is “[wild]” as in ecosystems—richly interconnected, interdependent, and incredibly complex” (168). Focusing on Kingsolver's novel *Prodigal Summer* (2000), this paper argues that, as Snyder once put it, art lies not so much in “an imposition of order on chaotic nature, freedom, and chaos,” but, rather, is “a matter of discovering the grain of things, of uncovering the measured chaos that structures the natural world,” of revealing “the way [wild] phenomena actualize themselves” (168).

### Revealing Randomness and Design through Multispecies Entanglements

Orchestrated as a novel with three intertwined, third-person narratives, *Prodigal Summer* follows the lives of three sets of characters, mainly connected by land and place in Southern Appalachia, North Carolina. Their relationships to nature are filtered through their activities, i.e. farming, hunting, gardening, animal watching, and preservation. Manifestly, these focalizing agents carry the voices, diverging points of view, and perceptions that can make readers sensitive to ecological principles. Dialogism thus takes place, first through the voice of Deanna Wolfe, a wildlife biologist specialized in coyotes, who lives as a recluse and works as a National Forest keeper in a game-protection area. She serves to instill basic notions of ecology, synthesizing readings such as Jonathan Roughgarden's *Theory of Population Genetics and Evolutionary Ecology*, or R. T. Paine's concept of keystone species. Kingsolver thus uses her characters to instruct readers about coyotes, how they eat, live, sense, raise their cubs, communicate, and, mostly, how as “keystone predators” they play an irreplaceable part in preserving a balance between species within an ecosystem (62), keeping all sorts of rodents and pests in check. The second set of characters in *Prodigal Summer* voices environmental concerns related to farming alternatives, as they move from tobacco farming to goat-raising. It focuses on entomologist Lusa, with a keen eye for moths, who has married into a rural family. Finally, the third main narrative thread pits ageing Creation Science upholder Garnett Walker against his neighbor, a hippyish organic apple farmer called Nannie Rawley, strongly opposed to pesticides. Their dialogues and epistolary exchanges introduce dramatic irony, tackling ethical debates related to our concepts of and dealings with nature, including ecological notions such as the Volterra principle (216): when a biocide aimed at one species also destroys that species' predator population, what may occur in the end is an increase in the initially targeted prey population—a phenomenon that may seem random if observed through the lens of



linear logic. Nannie Rawley's fight against Garnett's agricultural methods thus casts light on the chaotic, unforeseen counter-effects that pesticide-spraying, as well as other anthropic activities, may engender through negative, retroactive loops.

From the title of the book, *Prodigal Summer*, the novel at hand places the abundant yielding of life in the natural world at the heart of the matter. As the story covers one spring and summer, it brings attention to a myriad of species, whether animal, fungi, or vegetal. These interdependent lifeforms are prompted by an irresistible, more-than-human reproductive drive induced by the change in seasons. The titles of the three intertwined stories gesture toward a motif of interspecies connections. Although they revolve around human characters, these stories are entitled "Predators," "Moth Love," and "Old Chestnuts," connecting humans with animals, insects, and plants. In the course of the story, all these characters' actual present and potential fates turn out to be entangled, just as they are entangled with the lives of all the beings populating their Appalachian valley. Those seemingly random knots linking characters within one complex ecosystem give away the authorial, rhizomatic design underlying the novel. Moreover, it prompts us to consider the ways in which each and every one of our choices might later connect with and influence the trajectories of others, as well as, in turn, the evolution of greater systems. Such are the fates of the red wolf, the Cerulean Warbler, or the American chestnut, who have been wiped out in the wake of overhunting, deforestation, coal-mining, and of the human-introduced chestnut blight from entire regions in Appalachia. Such is also the potential fate of the entire forest in Kingsolver's novel, which could be restored by the migration and protection of coyotes moving into the ecosystem, or by the introduction of a hybrid, genetically modified chestnut that might resist the blight.

Highlighting the seeming randomness linking humans and nonhumans, the alleged chance encounter between Deanna Wolfe and Wyoming hunter Eddie Bondo turns out to be one of the main hinges of the characters' fates, influencing the potential courses of life of both the humans and the nonhumans populating Zebulon valley. Hence the recurrence in their strand of the narrative of images evoking "mortal world-making entanglements," to use Donna Haraway's phrase (*Species* 4). Let us take for instance Deanna and Eddie's "tangled" clothes lying in the mud, her "tangled" hair after their love-making, with beech leaves caught inside it, or else the phoebes pulling out white shreds of stuffing from Deanna's dilapidated armchair to line their own nests (24-27). Just as each individual human life in the book turns out intricately enmeshed with other humans' choices, human lives are revealed as inextricably interlaced with nonhuman lives, be they chestnuts or coyotes, birds or vine, moths or moss.

Moving away from notions of human separateness, Deanna tracks the not-so-random environmental damage wreaked by widespread use of pesticides and forest clearing in agribusiness:

Most people lived so far from it, they thought you could just choose, carnivore or vegetarian, without knowing that the chemicals on grain and cotton killed far more butterflies and bees and bluebirds and whippoorwills than the mortal cost of a steak or a leather jacket. Just clearing the land to grow soybeans and corn had killed about

everything on half the world. Every cup of coffee equaled one dead songbird somewhere in the jungle she'd heard. (323)

Deanna serves as an advocate for responsible consumerism. She reinstates the importance of all animals in the food chain all the way down to shrews, voles, worms and termites—the latter being a nearly invisible force that nonetheless plays an essential part in engineering soil fertility.

*Prodigal Summer* displays its female characters' ingrained sense of interdependence with all lifeforms around them.<sup>8</sup> This is made clear by the repetition between the opening and closing chapters of the novel, which frames the 444 pages of the book with a biocentric view of the world. Debunking the Cartesian notion of human exceptionalism, the narrative thus posits that humans do not exist apart from nature, but as agents taking part in nature's evolution. The closing paragraphs echo the *incipit* on the very first page *verbatim*. Whereas the heterodiegetic narrator in the opening follows Deanna's perspective, the last chapter subtly shifts to a female coyote's point of view. With rifle-toting Eddie Bondo surreptitiously watching her, the animal quickly moving up a forest trail behind other coyotes recalls the very first chapter in which Bondo watched Deanna in the same position: "Solitude is a human presumption. Every quiet step is thunder to beetle underfoot, a tug of impalpable thread on the web pulling mate to mate and predator to prey, a beginning or an end. Every choice is a world made new for the chosen" (444). This salient system of echoes in the open-ended novel creates tension: whether Deanna has managed to win Bondo over to her view of the world—grounded in the interrelatedness and intrinsic value of all beings and emphasizing the ensuing absurdity of killing large predators gratuitously—remains for the reader to decide. With the female coyote's life hanging on Eddie's unpredictable decision as to whether to pull the trigger or not, there comes a crucial sense of liability for the choices we make, and for the apparently random consequences that might follow. The implications of either choice seem all the direr since the female coyote, the reader learns, is on the tracks of another coyote clan, which could be crucial in restoring coyotes into the mountains. Here, animal and human lines of flight intersect, one holding the power to put an end to the other. The suspended ending does not explicitly lead toward either a tragic or a happy ending. Nonetheless, the reader is aware that letting the coyote live would finally fulfill Deanna's dreams:

She believed coyotes were succeeding here for a single reason: they were sliding quietly into the niche vacated two hundred years ago by the red wolf. [...The] coyotes were insinuating themselves into the ragged hole in this land that needed them to fill it. The ghost of a creature long extinct was coming in on silent footprints, returning to the place it once held in the complex anatomy of this forest like a beating heart returned to its

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<sup>8</sup> In Kingsolver's sometimes stereotypical, ecofeminist and utopian pluriverse, women struggle to help men resist their tendency toward hubris and become more critical of the ideologies and stories pitting Man against Nature. Her characters serve to deconstruct literal readings of the Bible and fairy tales. They criticize Hollywood's mainstream imagery, reminding us that in the cultural construct of nature as wilderness, humans are encouraged to dominate and subdue all other species, while they are taught to fear and loathe predators such as the wolf or again the shark, both of which are often constructed as the arch-enemy of humankind.



body. This is what she believed she would see, if she watched, at this magical juncture: a restoration. (63-64)

In this passage, the coyote stands as a synecdoche for the life of the entire mountain, here presented as an organism (“like a beating heart returned to its body”). Rather than being random, the coyotes’ wanderings, Deanna’s thinking reveals, are caused by the larger design of an ecosystem in which vacated positions will eventually be filled by another species. If left undisturbed, these seemingly random encounters could help reestablish the balance of the ecosystem, a horizon that might have dawned onto Bondo too, raising the stakes at play. In a way typical of Kingsolver’s fiction, this ending confronts us with the burden of individual liberty and accountability. Incidentally, this is one of the ways in which chaos theory has impacted ethical and moral beliefs related to notions such as fate and individual responsibility. Whereas purely deterministic science entailed a sense of cosmic fatality, the advent of chaos theory with its different take on the notions of randomness and pattern design has helped restore a sense of individual choice (Gleick 251). The principle of sensitive dependence on initial conditions that chaos theory has shed light upon in the evolution of dynamic systems is encapsulated in the famous metaphor of “the butterfly effect” (Gleick 25-51). It reveals that what may seem as the smallest matter matters on a much larger scale. Consequently, the slightest of our choices might in its wake propel all sorts of unforeseen developments and later prove to have significantly influenced some unfolding ecological design of interrelatedness.

Bondo’s name and its reliance on paronomasia give away Kingsolver’s implicit design. Evoking the notion of bonding, his name is a clue that Bondo should turn out to be one of the protectors of the web of life, one that takes heed of the alliances between various lifeforms in their co-becoming. Along similar lines, Nannie Rawley, one of Kingsolver’s ecofeminist spokes-characters, lectures her pro-pesticide neighbor: “Everything alive is connected to every other by fine, invisible threads. Things you don’t see can help you plenty, and things you try to control will often rear back and bite you, and that’s the moral of the story” (216). Nannie’s comment endorses the ecological ethical stances worked into Kingsolver’s environmental fiction, underscoring the blind spots in a binary thinking of randomness and design.

As if metonymically, the three interlaced narratives constituting the novel are textually linked, forming knots and rhizomes at various points. For example, the somewhat oxymoronic phrase “moth love,” which conflates insect life and human feelings, appears at the end of the first chapter in the “Predators” narrative (28). On the threshold of the second chapter, the reader is returned to the phrase “Moth Love,” a kind of run-on-line between the two chapters. This time, the phrase is capitalized as a title identifying the chapters focalized through Lusa, the entomologist. It thus foreshadows one of the autographic, intertextual threads woven into the text. As Deanna tracks a yet unidentified canid or feline predator in the opening chapter, she examines “a spot where it [has] circled a chestnut stump, probably for scent marking. She [studies] the stump: an old giant, raggedly rotting its way backward into the ground since its death by axe or

blight" (2). This early passage concatenates the lives and deaths of humans, animals, plants, and elements in a way that then runs through the three enmeshed narratives. The image of organic matter decomposing and going back to the earth furthermore encapsulates the ongoing cycles of life and death, of destruction and renewal that characterize a forest's capacity to feed from death and regrow. The old, gigantic chestnut here points to yet another textual rhizome, connecting this time with the title of the third narrative thread, "Old Chestnuts". The title refers to the extinct trees Garnett is obsessed with, and, metaphorically, to the two elderly and somewhat nutty characters that come alive in these chapters.

Making us sensitive to the existence of "earth others," as Val Plumwood would have it (154-55), this novel presents many intersecting points between the trajectories drawn by humans, animals, plants, and all earth others in their co-evolution, including mushrooms, moss, as well as elements, such as water, air, and soil. Forming a literary tapestry inspired by ecology—a science that foregrounds the many interrelated threads within an ecosystem between organisms and their environment, including other organisms—Kingsolver's rhizomatic interweaving of narratives, plots, and existences reveals humans' responsibility in preserving or despoiling the harmony of the whole, in strengthening or severing the ties intertwining all individuals and multitudes. The opening and closing chapter—together with everything in between—insist, that, as Donna Haraway put it, "[to] be one is always to become with many" (*Species 4*). In other words, Kingsolver's ecopoet(h)ics of measured chaos foregrounds the knots that bring apparently random phenomena into the sympoietic design of a self-regulating ecosystem reacting to outside perturbations.

### **Biological Design and Biosemiotics in the Human and the Nonhuman**

The measured chaos characterizing the ongoing interplay between individual organisms and multitudes of different lifeforms particularly comes to the fore in the episodes involving encounters between humans and other animals. The phrase "moth love" first occurs in a scene where Deanna, the zoologist, is paying careful attention to the critter's response to circadian rhythms:

The creature had finished its night of moth foraging or moth love and now, moved by the first warmth of morning, would look for a place to fold its wings and wait out the useless daylight hours. She watched it crawl slowly up the screen on furry yellow legs. It suddenly twitched, opening its wings to reveal the dark eyes on its underwings meant to startle predators, and then it flew off to some safer hideout. (28)

Such close observation of nature, mingled with understanding of biosemiotics and ethology, flourishes throughout the novel, cross-pollinating fiction with naturalist descriptions of lifeforms and behaviors that present many telling analogies with the human characters in the novel. Kingsolver's prose indeed constantly reminds us that no amount of culture can ever effectively remove humans from the measured chaos they have evolved from and continue to take part in. Humans have come to think of themselves as cultural beings in control, moved by rational knowledge and thinking,

rather than by the instinct and mechanistic behaviors that drive nonhumans. Yet, Kingsolver insists, many of our bodily and psychological responses to the world are nevertheless triggered by natural, complex design and intra-actions. These intra-actions affect what goes into our genes (one character has buried a daughter born with Down syndrome, a couple die or have died from incurable types of cancer), into our reproductive and growth faculties and patterns, our perceptual and hormonal systems, our flight behaviors, and physical attractions. As a result, it is only by analytically reflecting on these processes that govern the natural world—both human and nonhuman—that we can measure some of the chaos in which we are enmeshed, and thus reclaim some sense of human agency and responsibility.

Admittedly, Kingsolver's presentation of nonhuman nature is ambivalent. On the one hand, it is self-consciously anthropomorphic in a way that foregrounds the inevitable human subjectivity that mediates our contact with all others. On the other hand, it also acknowledges the otherness of animals, forever ungraspable and co-existing with us in a pluriverse of multitudinous co-evolutions. Despite this acknowledgment of otherness, Kingsolver's anthropomorphism genuinely induces empathy for animals' plights and emotions, referring, for instance, to the "human-sounding anguish" of a bobcat's "cries" like "icy shrieks in the rain, like a woman screaming" (3). Deanna's point of view encourages identification with coyotes' social and family rites, resembling human naturecultures in certain respects. It arouses feelings of sympathy for the coyotes' motherly ways, their yodeling and yipping sounds, thus working against archetypal fear of wolves and other wild predators in the collective unconscious. Far from feeding into the long-held illusion that humans may ever fully grasp the essence of nature and capture it in various forms of discourse, Kingsolver's focalizing agents approach nonhuman signs and recognize the elusive quality of an animal's mind from a human standpoint: "Male or female, [a coyote] had paused by this stump to notice the bobcat's mark, which might have intrigued or offended or maybe meant nothing at all to it. Hard for a human ever to know that mind" (7). Note the hypothetical modality ("might," "or maybe") underscoring how difficult it is for a human being to conjecture as to the possible perceptions, emotions, and thoughts of the coyote. The gap forever barring humans direct access to an animal mind is also translated by the deictic "that" in this passage, implying distance, and recognizing the animal's specific, perceptual world.

If the notion of "moth love" may at first sound anthropocentric, humans are as a counterpoint constantly shown as being partly driven by animal instinct: "Deanna felt the same impulse to bolt—to flee this risky mate [Bondo] gleaned from her forest" (28). In that sense, Kingsolver's characters are engaged in a process of "becoming-animal" in the way that David Abram uses the concept in his eponymous book: "the phrase speaks first and foremost to the matter of becoming more deeply human by acknowledging, affirming, and growing into our animality" (*Becoming* 10). Only by measuring how much of our own seemingly chaotic behaviors are indebted to our animal naturecultures, can we try to curb or cherish this animality. Thus may we rethink what could make for less destructive ways of inhabiting our *oikos*. Thus too may we fully intentionally venture

into more sustainable relationships with the nonhuman environments and organisms that we must necessarily co-evolve with. Kingsolver underscores that human agency and design will always intersect with the chaos running the biosphere's many complex systems. Forever unfolding in partly unpredictable ways, the manifestations of chaos and design she presents in her novel reveal the ecosystemic ties between anthropic activity and the many nonhuman lifeforms and systems of the Earth.

As another facet of the measured chaos that pervades the material universe, Kingsolver writes about an interconnected web of living beings, with an inherent and intelligible order. The web is colorful, luscious life designed to breed more colorful, luscious life:

[...] rhododendrons huddled in the cleft of every hollow. [...] But for now their buds still slept. Now it was only the damp earth that blossomed in fits and throes: trout lilies, spring beauties, all the understory wildflowers that had to hurry through a whole life cycle between May's first warmth—while sunlight still reached through the bare limbs [...]. On this path the hopeful flower heads were so thick they got crushed underfoot. In a few more weeks the trees would finish leafing out here, the canopy would close, and this bloom would pass on. Spring would move higher up to awaken the bears and finally go out like a flame, absorbed into the dark spruce forest on the scalp of Zebulon Mountain. But here and now spring heaved in its randy moment. Everywhere you looked, something was fighting for time, for light, the kiss of pollen, a connection of sperm and egg and another chance. (8-9)

The buoyancy of spring here manifests the randomness and design that goes into the birth and death of any lifeform. Each follows its genetic code urging for survival and reproduction while simultaneously depending on chance encounters with other micro- or macro-organisms engaged in their own evolutions. Striving toward that ever-elusive ideal of "thinking like a mountain" (Leopold 137), Kingsolver's voluptuous descriptions use a language as lush as the vegetation she describes, while highlighting the sensuous connections between plants, animals, elements, and humans that rhizomatically form both the "under-story" and the "upper-story" of the life of the mountain. Both the mountain and its vegetation are personified. The mountain possesses a "scalp," and the plants "huddle"; buds "sleep," tree branches have become "limbs," and flower heads are "hopeful." Animal and human romance and sexuality are likened to botanical reproduction, with "the kiss of pollen", and spring "heaving in its randy moment." The repeated modal "would"—both epistemic and radical here—points toward a driving life-force, the will to live ingrained in DNA that moves individuals, packs, and entire species, as well as the whole ecosystem of a mountain. On a larger scale, one might say that Kingsolver's writing coalesces with Theodore Roszak's claim that "Gaia, taken simply as a dramatic image of ecological interdependence, might be seen as the evolutionary heritage that bonds all living things genetically and behaviorally to the biosphere" ("Where Psyche Meets Gaia" 14).

Eroticizing interspecies connections, Kingsolver recycles Deleuze and Guattari's analysis of the symbiosis between the orchid and the wasp (17), central to their concept of becoming-animal, and calling attention to the complex design of lifeforms that sustains interspecies alliances: "[Deanna] bent to see, aware of her own breathing as she touched the small, raised knob, where this orchid would force its pollinator to drag its

abdomen before allowing him to flee for his life. She felt a sympathetic ache in the ridge of her pubic bone” (22). Transcending conventional gender metaphors, Bondo and Deanna come across so-called “lady-slippers,” and mock the patriarchal narrow-mindedness of early botanists, systematically associating flowers with the feminine. Shifting perspectives, the “lady’s slipper” is described in terms evoking male genitalia: “dozens of delicately wrinkled oval pouches held erect on stems, all the way up the ridge. She pressed her lips together, inclined to avert her eyes from so many pink scrota” (21). Together, the two characters laugh at “whoever had been the first to pretend this flower looked like a lady’s slipper and not a man’s testicles. But they both touched the orchid’s veined flesh, gingerly, surprised by its cool vegetable texture” (21). Collapsing flesh, veins, and testicles with the “vegetable texture” of flowers makes for an eco-erotic textuality where human, animal, and vegetable sexuality, corporeality, and semiotics converge. By challenging the human languages that separate those realms, Kingsolver’s ecopoet(h)ics explores biomimetic and biosemiotic designs that perpetuate the interspecies connections conducting measured chaos.

The biological drive moving all life-forms toward reproduction is encapsulated in the seasonal rhythms, as the eloquent observations of Deanna Wolfe in her Appalachian Mountains suggest:

[...] a fresh hatch of lacewings seemed to be filling up the air between branches. [...] They were everywhere suddenly, dancing on sunbeams in the upper story, trembling with the brief, grave duty of their adulthood: to live for a day on sunlight and coitus. [...] Their new, winged silhouettes rose up like carnal fairies to the urgent search for mates, egg laying, and eternal life. (16)

The same force urges animals, plants, and humans, perceptible in the initial bonding and attraction leading to intercourse between Deanna and Eddie Bondo: “[There was] this new thing between them, their clasped hands, alive with nerve endings like some fresh animal born with its own volition, pulling them forward” (20). Whether human love or reproduction instinct, the life-drive Kingsolver evokes gets nearly fleshed out (“this new thing [...] alive with nerve endings like some fresh animal”). It gets endowed with a corporeality and agency of its own that will influence the courses of both characters’ lives, while it foreshadows Deanna’s unexpected pregnancy. With Haraway’s formula in mind, according to which “[s]pecies is about the dance linking kin and kind” (*Species* 17), one might say that Kingsolver’s text performs a coinci-dance while pitching a lyrical hymn that reweaves word to world. The ritual mating of hawks is presented as co-choreographed by the birds and the elements, producing an uplifting dance and euphonic song:

A red-tailed-hawk rose high on an air current, calling out shrill, sequential rasps of raptor joy. She scanned the sky for another one. Usually when they spoke like that, they were mating. Once, she’d seen a pair of them coupling on the wing, grappling and clutching each other, and tumbling curve-winged through the air in hundred foot death drives that made her gasp, though always they uncoupled and sailed outward and up again just before they were bashed to death in senseless passion. (17)

First, the zoologist here acknowledges animal language and communication (“calling out,” “when they spoke like that”), as well as animal emotions (“raptor joy”). Second, the



poetic language communicates a sense of ecstasy (“rose high”) and thrill (“calling out shrill, sequential rasps of raptor joy”). The alliterations in voiced and unvoiced plosives, or stops (in [p, t, k, b, d, g]) together with sibilant ([f, s]) and liquid sounds (“[r]” and [l]”) produce smooth gliding and rolling of the tongue, air flows like the air swishing by and a vibration of the vocal chords that emulate the movement and sensations evoking flying and air currents. The balanced iambic rhythm (“sequential rasps of raptor joy” [-/-/, -/-/]) moreover cues the reading into a rapping that echoes the bird’s rasping.

Parallel to this mating ritual, like a choreography worked out by nature and relayed by the ecopoet, Deanna and Bondo soon surrender to a similar pull and tug of sexual attraction, “falling together like a pair of hawks” (22). Working against speciesism, courting rituals between humans and animals are likened: “[Bondo and she]’d had their peculiar courtship: the display, the withdrawal, the *dance* of a three-day obsession” (26, emphasis added). Kingsolver’s human animals indeed behave just like other species, falling or rising in love, “yielding to earthly gravity” (22) and thus to the same will to live that drives Gaia as a whole. Whether becoming-animal through the alliances that she forms with animals, or reawakening to her own, intrinsic, animal nature, Deanna follows on animal tracks in many ways.

The opening chapter foregrounds the animal manner in which she moves, elegant yet unencumbered with social self-consciousness. Her gait and bodily countenance engage her in a corporeal relationship with her environment: “her body was free to follow its own rules” (2). True to the ecofeminist philosophy that informs her writing, Kingsolver’s approach of femininity constantly walks the fine line between genetic design and cultural determinism. From the start, Deanna’s “long, unfeminine stride” does not match cultural stereotypes of femininity (16). So as not to be detected by the animals that she tracks, she uses neither perfume nor soap. Thus, it is inferred, she might actually smell like a female, accounting for Bondo’s attraction to and tracking of her on her ovulation day: “I sniffed you out, girl. You’re a sweet, easy trail for a man to follow” (92). Conversely, Deanna’s gaze focuses on “the glossy animal movement of [Bondo’s] dark hair and the shape of his muscles in the seat of his jeans” (15). The language applied to his physique, described as “ferociously beautiful,” exhibiting “pure naked grace” (29), recalls terms often used for wild animals, or for women for that matter. Such descriptions correct the patriarchal assumption that wild phenomena actualize themselves more in women than in men, a claim that has been instrumental in much domination and oppression of women. Rather than antagonizing purely culturalist and essentialist views of women and men, Kingsolver’s female characters unravel these strands to negotiate a form of re-empowerment that braids genetic programming together with social environments and individual, free will. Reclaiming one’s embeddedness in naturecultures thus propels a liberating movement, inducing subjects to take responsibility for situating themselves within the measured chaos of worldly existence, and, subsequently, for their individual choices in defining their own identities and relational practices and values.

Underlining humans’ biological responses to human and nonhuman naturecultures, Kingsolver, like Haraway, highlights not only our responsibility as



stewards of the earth, but also our wonderful response-ability when attuned to our natural environment (Haraway, *Species* 71). Contact with natural beauty indeed seems to inspire a sense of bonding, not only with the landscape and fauna and flora, but also with one's co-participants in these moments of open contemplation. Such a sense of bonding is expressed, for instance, when Bondo, blown away by the spectacle of Zebulon valley, reaches out for Deanna's hand: "Touching her as if it were the only possible response to this beauty lying at their feet" (20). Kingsolver's characters acutely respond to contact with earth others. Moreover, they invite us to follow in on their tracks as they read the world through more than just a visual lens, reactivating other animal senses such as touch, smell and hearing.

### Staying Attuned to Gaia and its Measured Chaos: Ecopoetics of Enchantment

In this last part, I mean to delve into the poetic impulses (*poiesis*) that vibrate through Kingsolver's sensual prose and *reenchant* (or sing along with) the world as a precious, living home (*oikos*) to wildly different, yet interconnected species. If we can indeed be attuned to our environment, then the question arises whether human beings might be able to pick up the tunes of the world and its measured chaos. This is the argument at the heart of Joachim-Ernst Berendt's ground-breaking study of the physicality of matter's music in the light of which it can scientifically be claimed, as goes the title of his book, that "the world is sound." Negotiating "the formation of chaotic rhythms" (121) within "the harmonic structure of the universe" (127), Berendt argues that "the tendency toward harmony, immanent in music, in a way is nothing else but a reflection of the same tendency outside of music, in almost all fields" (116). It is a tendency "of everything that vibrates [...], a tendency of the universe to share rhythms, that is, to vibrate in harmony" (116-17). It is a tendency, one might say, of measured chaos.

In a strikingly synesthetic metaphor, Deanna heeds the high-pitched howling of coyotes in the night, a "long blue harmony against the dark sky" (435). The poetic formula performs what Knickerbocker calls "sensuous poesis" (2). It highlights the ecopoet's role as mediator between her readers and the land's chaotic music. As with the ecopoets Knickerbocker studies, Kingsolver's writing does not aim solely at providing "a mirror of the world" (13); rather, it further "[enacts] through formal devices such as sound effects the [implied writer's] experience of the complexity, mystery, and beauty of nature" (13). In doing so, Kingsolver's novel corroborates Berendt's approach of the human ear, body, and mind as predisposed to follow the harmonies of the cosmos, through the physical laws of resonance (51-71). It furthermore falls in line with Abram's defense of "the power of language": far from a purely human-made structure of random, arbitrary signs, language evolved from the "vital *presence* of [the] world," as "a way of singing oneself into contact with others and with the cosmos" (*Becoming* 11).

Narrated—if not chanted—in a lyrical tone when revering the miracles of nature, the web of life interwoven within the text forms a sacred hoop.<sup>9</sup> This hoop resonates with Jean Giono's "song of the world," Jonathan Bate's "song of the earth," or what Mark Tredinnick describes as "the land's wild music."<sup>10</sup> Attentive to bird calls, Deanna listens "to the opening chorus of the day": "In the high season of courtship and mating, this music was like the earth itself opening its mouth to sing" (51-52). The living world in Kingsolver sounds.<sup>11</sup> Birdcalls, "forests of dripping leaves" and "sibilant percussions" (1) articulate with human language. They speak to the human ear, heart and brain in cadenced words, phrases, and music, as if inspired by some sort of great volition orchestrating the many instruments of the world:

Its crescendo crept forward slowly as the daylight roused one bird and then another: the black-capped and Carolina chickadees came next, first cousins who whistled their notes on separate pitches, close together, distinguishable to any chickadee but to very few humans, especially among the choir of other voices. Deanna smiled to hear the first veery, whose song sounded like a thumb run down the tines of a comb. [...]

The dawn chorus was a whistling roar by now, the sound of a thousand males calling out love to a thousand silent females ready to choose and make the world new. It was nothing but heady cacophony unless you paid attention to the individual entries: a rose-breasted grosbeak with his sweet, complicated little sonnet; a vireo with his repetitious bursts of eighteen notes and triplets. And then came the wood thrush, with his tone poem of birdsong. (52)

Apart from evoking the lexical field of musicality merged with voices, the language itself here produces a kind of musical score. Musical consonance is produced by the marked alliterations and assonances (in [k], for instance, as in "the black black-capped and Carolina chickadees came next," or in the diphthong [əʊ] and the long [i:] as in "a rose-breasted grosbeak with his sweet"). The veery's song is sounded with monosyllabic words that imitate the noise it is compared with ("like a thumb run down the tines of a comb"). The lyricism of the prose thus euphonizes against the potential dissonance ("nothing but heady cacophony") picked up by human ears that might be ill-attuned to the various pitches and rhythms of these many forest calls, untrained ears that might otherwise perceive chaos instead of the measured songs relayed by the ecopoet. On reading Kingsolver's text, one experiences a becoming-bird through the phonemes and rhythm sounding in one's body and mind, via actual or imagined speaking and hearing. The ecopoetic text de-ciphers the vibrant languages of the earth, via sensuous poetics that speak directly to the senses. In so doing, it may well be that the reader's mouth, tongue, ears, phonatory organs, and brain become entangled with the images, sound effects, cadences, and poetic devices of the text, participating in the becoming-animal, becoming-vegetable, becoming-elemental, and becoming-musical at play.

<sup>9</sup> I am here taking up the biocentric concept of "the sacred hoop" as strung together in writing by ecofeminist scholar Paula Gunn Allen, of Laguna Pueblo and Sioux heritage: "The concept is one of singular unity that is dynamic and encompassing, including all that is contained in its most essential aspect, that of life" (56).

<sup>10</sup> See the "Works Cited" section for the eponymous books by these authors.

<sup>11</sup> Barbara Kingsolver's husband, Steven Hopp, is an ornithologist and a musician, and Barbara herself is also a zoologist and musician.

Kingsolver moreover taps into the ecological intuition poetically entwined in Appalachian vernacular idioms:

People in Appalachia insisted that the mountains breathed, and it was true; the steep hollow behind the farmhouse took one long slow inhalation every morning and let it back down through their open windows and across the fields throughout evening—just one full, deep breath every day. (31)

Not only is the local saying accurate, with mountain vegetation breathing oxygen into our lungs during the day and rejecting CO<sub>2</sub> at night; in addition, it reveals how attuned to their natural environment vernacular idioms can be. Sensitive to the breath of life on the level of a whole mountain forest, these characters' involvement with nature goes so far as to be translated not only as a sensuous but as a sensual relationship:

...the inhalations of Zebulon Mountain touched her face all morning [...]. She learned to tell time with her skin, as morning turned to afternoon and the mountain's breath began to bear gently on the back of her neck. By early evening it was insistent as a lovers' sigh [...]. She had come to think of Zebulon Mountain as another man in her life, steadier than any other companion she had known. (32)

In the synesthetic process of reading, assonants in bilabial [b] phonemes feel like engaging one's lips into giving light pecks, like kisses, and the many sibilants and fricatives ([f]; [θ], [ð], [s] and [z]) convey the airflows of breathing into one's mouth, with an alternation between voiced and unvoiced phonemes engaging the vocal chords in a process evoking the sighing and breathing described. The pathetic fallacy turning the mountain into a lover points to elements and vegetable beings as companion species for humans, thereby broadening Haraway's notion of the ties between humans and the animals we share our lives with.

In line with Berendt, who insists that to better understand the complex patterns making for musical harmony in the universe, humans' "ocular hypertrophy" (5-7) needs correcting, David Abram argues that we humans would benefit from "[tuning] our animal senses to the sensible terrain" (*Becoming* 3). The sense of smell in *Prodigal Summer* is also central to understanding the interconnections between the earth, its many dwellers, and their creative and procreative inclinations. Smell is one of the ways in which, to take up Abram again, "beings have the ability to communicate something of themselves to other beings" (*Becoming* 172). Put differently, it may be one of the ways in which natural designs charm humans into interaction with nonhumans. As a result of her becoming-animal, Deanna exhibits a sharp sense of smell that allows her to identify and track canids versus felines: "She squatted, steadied herself by placing her fingertips in the moss at the foot of the stump, and pressed her face to the musky old wood. Inhaled. / 'Cat,' she said softly to nobody" (3). The same animal reading of the world suddenly takes over Lusa, also endowed with an acute sense of smell that works its way through her brain to both trace and name the source of the scent: "Lusa was alone, curled in an armchair and reading [...]-when the power of a fragrance stopped all her thoughts. [... She] was lifted out of her life. / She closed her eyes, turning her face to the open window and breathing deeply. Honeysuckle" (30). Far from randomly, words come to these characters as directly inspired—in both the literal and figurative meanings of

the verb—by an enchanting contact (“she was lifted out of her life”) with the earth. The latter is enchanting, shifting her awareness of the world around. Just as the very name “honeysuckle” seems to originate in the concrete, sweet fragrance sucked into one’s nostrils when in contact with the vine, the words “bobcat” and “honeysuckle” pop into the characters’ minds as a direct result from the rush of olfactory perceptions, channeled through one’s nose directly to the brain. Connecting the mind to the tangible, worldly lifeforms, the power of scent transcends both pure logos and visual absence. The bobcat and the honeysuckle thereby make themselves present, traceable through their scent from which the words arise, with the power to connect beings *in absentia*. This constitutes, in the world conjured by Kingsolver’s novel, a magical, enchanting phenomenon that is reiterated by the immersive experience of reading, reversely bringing the scent and awareness of the animal and the vine’s existence to our own bodyminds as we experience the wor(l)ding on the page.

From Old French *inspiracion* (“inhaling, breathing in, inspiration”) and Latin *inspirare* (“to blow into, breathe upon; inspire, excite, inflame”) the polysemy of the word “inspiration” covers the bodily sense of inhaling, while figuratively, it may also mean “to animate or influence; to affect, guide or control, especially by divine influence,” “to breathe life or spirit into the human body,” and “to impart reason to the human soul” (Merriam-Webster). In Kingsolver’s novel, not only do linguistic signs spring into the human mind purely from smell, life itself springs from the ground up, inspired by odors: “Toadstools dotted the humus at its base, tiny ones, brilliant orange, with delicately ridged caps like open parasols. The downpour would have obliterated such fragile things; these must have popped up in the few hours since the rain stopped—after the animal was here, then. Inspired by its ammonia” (3). Just as these mushrooms have been inspired into life by the earth’s response to the bobcat’s urine, human existence may well be interconnected with all other earth beings, responding to the presences in their environment in equally measured and chaotic ways. Furthermore, propagating synesthetic poetic prose inspired from the lives of toadstools, moths, and legion species of insects, plants, and higher animals, the eco-poetics arising from Kingsolver’s ecological tapestry also gestures toward the etymology of the word “humus,” which is connected to smell (“humer” in French, to enjoy a delicate smell, to sniff), but also to the words “human,” and “humility.”<sup>12</sup>

Flowering from the delicate and fragile mushrooms inspired by animal urine, the wonderful and biocentric view at the heart of Kingsolver’s text inspires humility. Stooping down to read and smell scat and urine, her characters call attention to the most extraordinary wonders of even the tiniest, lowest, lifeforms. The hierarchy of species and languages white patriarchal societies have long upheld is thus unraveled, reweaving instead the world and words that have sprung from it in a non-hierarchical, sacred hoop

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<sup>12</sup> Josh A. Weinstein draws conclusions that particularly resonate with my analysis here: “The ‘great chain of being’ is replaced by a perhaps infinite net of interconnection; the outdated concept of a ‘food chain’ is replaced by the more dynamic and complex metaphor of a ‘food web’. [... We] find the root of ‘humility’ is the same as that of ‘humus,’ the dark material in soil derived from decomposing animal and plant material that is a crucial pathway in the flow of energy and materials within and between different species and indeed different kingdoms of organisms” (771).

of interconnected, enchanting beings. Meanwhile, Kingsolver's ecopoetics forages into human language and concepts, striving to get to the heart of the words with which we *make sense* of the world, reawakening us to the knowledge that thinking and speaking are, first and foremost, embodied activities practiced via our incorporation into the flesh of the world, to take up Merleau-Ponty's phrase. Brought by our sensory perceptions into a complex matrix of co-becoming that follows the sometimes-unpredictable oscillations of measured chaos, Kingsolver contends, we humans can never extricate ourselves from the unfolding designs that incorporate us.

Celebrating the wonders of life, Kingsolver's reenchantment of the world consecrates Buell's claim that the "the power of imagination" (*Writing* 22) can break through the limits imposed by the modern human mind. It validates his concept of an "environmental unconscious," perceived as both a foreshortening of perception and a "residual capacity [...] to awake to fuller apprehension of physical environment and one's interdependence with it" (*Writing* 22). In Kingsolver's writing, this is often achieved via a non-phallogocentric rapport with the world, but, rather, through a sensitive, biocentric engaging with the world that relies on intuition and uninhibited perceptions. Semiotically ordered and worded, these perceptions reassert the power of touch, smell, taste, and hearing, interlinked within our embodied consciousness and responses to contact with the world. They provide random, intuitive sources of knowledge that can short-circuit the logocentric channels that tend to direct our incursions into the chaotic yet also measured world outside of our thinking minds.<sup>13</sup>

## Conclusion

Co-orchestrating the measured chaos that designs the web of life, itself entangled within the web of human and nonhuman languages, Kingsolver's ecopoet(h)ics responds to the multitudes dwelling within sympoietic Gaia (Haraway, *Staying* 58). Earth herself, like any dynamic system, possesses the capacity to integrate outside perturbations into her own design. Kingsolver's writing in this sense ties in with many ecofeminists and ecopsychologists' analyses of the ongoing ecocide—a situation that will engender unforeseen chaos if humans remain deaf to the voices of the Earth beyond certain tipping points. According to Sarah Conn, "[the] world is sick [...] its needs healing; it is speaking through us, and it speaks loudest through the most sensitive of us" (qtd in Roszak, "Psyche" 12-13). As a matter of fact, Kingsolver's ecopoet(h)ics of measured chaos could be said to substantiate Roszak's hypothesis that "the self-regulating biosphere [might 'speak'] through the human unconscious, making its voice heard even within the framework of modern urban human culture" ("Psyche" 14). Kingsolver's work indeed contributes to reawakening humans' environmental, collective

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<sup>13</sup> For a more detailed account of embodied cognition, see Antonio Damasio's ground-breaking work on "the somatic marker hypothesis" (xi), tackling the inseparability of reason and emotion in the bodymind: "feeling may not be an elusive mental quality attached to an object, but rather the direct perception of a specific landscape: that of the body" (xix); "mental phenomena can be fully understood only in the context of an organism's interacting in an environment" (xx-xxi).



unconscious, that is our “ecological unconscious,” more radically defined by Roszak as “the ‘savage’ remnant within us” (*The Voice* 96), a “collective unconscious” that “shelters the compacted ecological intelligence of our species, the source from which culture finally unfolds as the self-conscious reflection of nature’s own steadily emergent mindlikeness” (*The Voice* 304). It may be hoped that as the sciences and the arts further the conversations about the meaning of our dwelling within the earth, they may cast better light on the interplay between consciousness and unconsciousness as well as between the randomness and design in the DNA of all living beings from which matter, mind, and the many vibrant languages of nature co-emerge. Making us aware of the measured chaos at play in living, feeling, perceiving, speaking and writing, Kingsolver’s ecopoetics of randomness and design demonstrates that “[human] chatter erupts in response to the abundant articulations of the world,” and that “human speech is simply our part of a much broader conversation” (Abram, *Becoming* 172).

Offering language that tries to reconnect us sensually with the animal, vegetal and elemental wildlife that we humans come from and depend on, *Prodigal Summer* seeks to restore us to our home, the earth. It reminds us both of our lowly position as human individuals, and of the sacred ties interlacing our naturecultures within Gaia—ties that are sacred precisely because they form an ecological design humans cannot extricate themselves from or entirely understand, much less even control. Like the old, giant chestnut rotting its way back to the ground, Kingsolver’s novel at once highlights how brief and small one individual life might be, how much of its course may sometimes seem random but, conversely, how each life plays a part in the larger web of life that animates our home planet, forever inclined to renew itself, breathing the song of the “Eairth” (Abram, *Becoming* 271) through our every pore.

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