



BOOK SYMPOSIUM

Thinking like a mountain

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We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain.
—Aldo Leopold¹

Foretelling is a chancy business, most especially given the grave uncertainties of this time. I would be willing to wager, however, that this book, *How forests think*, will come to mark a decisive moment in the history of anthropology. The development of the discipline coincides with the modern era of human ecological dominance now described so often as the anthropocene. Kant began giving the lectures that would comprise his *Anthropology from a pragmatic point of view* in 1772, in the same years that James Watt perfected his designs for the steam engine. Lakota chief Crazy Horse surrendered to US soldiers in the Great Plains of the United States in May 1877, two months after Lewis Henry Morgan had published his account of progressive human civilization in *Ancient society*. The ubiquitous travelers that Lévi-Strauss lamented in his 1955 *Tristes tropiques* embodied both the global acceleration of postwar industrial activity and the dizzying proliferation of anthropological sites and practitioners.

“What is this world beyond us and the sociocultural worlds we construct?” Eduardo Kohn asks (2013: 223). It is a question that has always tormented these

1. From “Thinking like a mountain,” in *A Sand County Almanac* (1949: 129–33).



harbingers of upheaval, the anthropologists, but Kohn gives us a novel way of engaging those lives we spy beyond our own. His inquiry pursues, in his words, engagements that “amplify unexpected and real properties of the world that we can harness to think beyond the human as we know it” (95). And the stakes of this endeavor could scarcely be higher, he reminds us: “if ‘we’ are to survive the Anthropocene . . . we will have to actively cultivate these ways of thinking with and like forests” (227).

In this brief response to the startling challenge of Kohn’s book, I want to reflect a little about the “properties of the world” at work in the text. How far beyond the human can we think, should we think? How does the course charted out for this voyage beyond the human impinge upon how we imagine and pursue possibilities for survival: on the specific ways, that is, that we may look and live beyond this moment?

The particular problem that I want to explore has to do with the close relationship drawn in the book between living and thinking, and what this kinship implies for the kinds of worlds—forests and otherwise—that we can live and think with. I want to try to pry open a space for thought beyond the domain of biological life, by returning in part to certain neglected ideas proposed by C. S. Peirce. “Thinking with forests,” Kohn writes, “allows us to see how we think like forests in ways that reveal some of the sylvan properties of the living thought itself” (2013: 99). Here, I want to linger on some of the material qualities of this landscape’s thinking, as a way of grappling with the place of matter in the development of thought.

For Kohn, “to think like forests” is to think “in images”—these are its sylvan properties (2013: 222). Kohn’s book is populated by a vast array of such images: dream images and sonic images, painted murals and vivid mythical scenes, the forceful and often quite haunting frontispieces to each of the chapters, and the countless resemblances at work in that intricate domain: the way that a particular kind of insect, for example, comes over many generations to look like a walking stick among the plentiful sticks and twigs around it. Forest of images, tropical hall of mirrors, confounding likeness at every turn—think of Sir Walter Raleigh’s sixteenth-century trials along the Orinoco, in search of El Dorado: “we might have wandred a whole yeere in that laborinth of rivers, ere we had found any way, either out or in” (in Raffles 2002: 84).

Kohn, thankfully, introduces numerous allies to guide us through this vertiginous terrain. Foremost among them is Charles Sanders Peirce, whose pragmatic maxim of 1878—“Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have . . . our conception of these effects is the whole of our conception of the object” (Peirce 1931–58: 5.402)—offers, perhaps, the most useful principle to navigate among the many paths one might take through these stories and materials. What are the effects of thinking beyond the human in the way that Kohn conceives it? What difference would it make if this objective was conceived in a slightly different way?

For Kohn, the domain of thought is coextensive with the domain of life. Living beings are thinking beings, living environments are environments of thought, thoughts themselves are living beings—“all life,” he writes, “is semiotic” (2013: 78).



If the forest is an open whole, as Kohn suggests, both its openness and its holistic relationality depend upon its thinking quality: the way that possibilities for emergence, growth, and transformation are layered into the web of relations that compose its ecology of selves. These relations are arrayed hierarchically, Kohn argues: human beings have their place here, for example, as wielders of higher-order linguistic signs and symbolic conventions. Beyond this proclivity of our species, however, extends a vast and bustling domain of icons and indices: “nonsymbolic representational modalities pervade the living world,” Kohn writes (2013: 8), imparting significance, striving, and purpose to the teeming life of the forest, embodying “a kind of thinking that grows” (14). These embodied thoughts, these images, may work just as well on us, he says. And so we may ask, peering more closely at its soil, how does the book give flesh to the process that it wants us to consider—this movement of life itself, thinking?

A bound sheaf of pages to give flesh, give form, give body, give life—these are words to choose advisedly, given the distinctions that Kohn makes between living selves on the one hand and material objects and artifacts on the other. “Life thinks; stones don’t,” he writes (2013: 100), describing the tissue of aims, defeats, confusions, and conjectures through which lives pry open the future. And yet, as we turn from page to page of this artifact (a book shaped from the substance, it seems, of Forest Stewardship Council-certified wood), something like life seems to be unfolding. Take the way that the narrative keeps looping back, over many chapters, to that fateful day in the forest when Amériga’s dogs failed to come home—what does it mean that the book puts those events into abeyance, that it keeps you wondering, again and again, along with so many others of that world, what could have happened to them? To whom or what does this feeling of anticipation belong? Do books think, or do living beings think with them, whether they “chew” on those pages with arthropod mandibles or more figurative pincers?

Or, take this gripping episode, when a bus on which Kohn is traveling with his cousin is suddenly stranded among a series of landslides on the road from the eastern slopes of the Andes into the Amazonian lowlands. Kohn describes the event and the panic that ensues for him as a moment of radical Cartesian doubt, a “feeling of being cut off from my own body and a world whose existence I no longer trusted” (2013: 47). Reading along with him, however, we may find that the tourists on the scene seem far more glibly apart from that world, failing to notice the gravity, so to speak, of the situation. As the earth slips onto the road before and behind them, Kohn also plunges into “a jumble of disturbing images” (46). He thinks of “future dangers spinning themselves out of control” (47). He hears or feels a rock crashing onto the roof of the bus—“the mountain above us was starting to fall on us,” he thinks (46).

Kohn goes on to write of being “regrounded” by the eventual sight of a tanager foraging in the bushes of a nearby town (2013: 57). But it is difficult to see when and how he left the earth in the first place. His thoughts seem to trouble not the existence of the world as such, but its fixity, for they are overtaken here by the chaotic momentum of an unexpected movement. Does this moment attest to the dangers of symbolic flight, as Kohn suggests, or instead, chthonic descent? Where is thought’s locus here?

What this episode from Kohn's book brings into focus, in other words, is the crucial relationship between mind and matter. C. S. Peirce, for his part, had proposed that the evolution of the whole universe expressed one underlying law: "the tendency of all things to take habits" (Peirce 1931–58: 6.101). This cosmological perspective led Peirce to a peculiar characterization of matter itself, as—in a passage quoted by Kohn—"mind whose habits have become fixed so as to lose the powers of forming them and losing them" (Peirce 1931–58: 6.101). While there is much to ponder in this idea of a fundamental kinship yet ultimate divergence between mind and matter, we may also note that for Peirce, the settling of things into a law-like regularity was always incomplete (Santaella Braga 2009).

In the name of "tychism," or a philosophy of absolute chance, Peirce insisted upon the ineluctable—if infinitesimal—deviation of all things from fixity and necessity, an indeterminacy to which he was no doubt attuned by three decades of meticulous gravimetric work with pendulums for the US Coast Survey—the only consistent employment that Peirce enjoyed in a life otherwise riven by countless disappointments (Brent 1998). The difference between mind and matter for Peirce, therefore, unlike Kohn—"between the organic and the inorganic realms, between the psychical and the physical universes" (Santaella Braga 2009)—was one of degree rather than kind: "what we call matter is not completely dead . . . it still retains the element of diversification; and in that diversification, there is life" (Peirce 1931–58: 6.158).

If life is thought, and if matter also retains some life, we are forced to confront the difficult puzzle of matter's thought. What could it mean for matter to think, except to shake off a habit of one kind or another? To careen as mud beyond a terraced hillslope, to buckle and bend where steel isn't supposed to, to splatter a cliff accidentally with yellow paint, or to rattle the roof of a bus rather than its undercarriage (Kohn 2013: 46): can these be taken as instances of thinking matter? Uncertainty, Peirce writes, is the very essence of "the mental law" (1931–58: 6.148).

And yet, as Kohn rightly points out, this is only one side of the picture. Thinking involves both the breaking of habits and the making of new ones, and this is the horizon of emergence against which the distinction between life and nonlife, the dynamic and the inert, so often gains its sharpness. But here too, let us recall, Peirce had some fascinating things to say. The "thirdness" of representation or mediation is something already present in nature, Peirce writes, "a general principle that is operative in the real world," productive of likely yet indefinite effects—even in the case of a falling stone.² The "Universe" itself, Peirce suggests, can be taken in semiotic terms: as an unfolding "argument . . . continually receiving new accretions"

2. Peirce proposes to drop a stone. "I know that this stone will fall if it is let go, because experience has convinced me that objects of this kind always do fall," he writes, but goes on to distinguish the reaction of the stone from the representation it makes possible: "Whatever reacts is *ipso facto* real. But an object of representation is not *ipso facto* real. . . . When I say that the general proposition as to what will happen, whenever a general condition may be fulfilled, is of the nature of a representation, I mean that it refers to experiences *in futuro*, which I do not know are all of them experienced and never can know have been all experienced" (1931–58: 5.93–5.97).



in the form of novel qualities, new premises, “independent uncaused elements of facts” (1931–58: 5. 119).

Mud, rocks, stones, dirt—these are materials to make enduring impressions. Kohn writes of life harnessing form (2013: 159), but I think we can read his recounting of those landslides, instead, as an instance of a material form harnessing and possessing a living course of thought. How else to make sense of that jumbling, spinning, and falling of idea and image that Kohn describes, except as forms of embodied movement passing over from one kind of matter into another, as the sliding, the becoming-landslide, of thought?³ We plunge and tumble with the things of the world, whose movement does something more than merely “condition” our thinking and living—at stake here is the very stuff of what we think.

These may be rather strange and tenuous implications to draw from a few pages of this brilliant and immensely generative book. But let us remember that Kohn puts us in a space in which “dreams spill into wakefulness and wakefulness into dreams in a way that entangles both” (2013: 13). And in a space such as this one, of disappointed dreams, “we *actually* do fall,” as the existential psychologist Ludwig Binswanger once wrote (1985: 81). “The sky and the sinking ground are not metaphors” in the poetry of thinking and dreaming, Stefania Pandolfo explains—“or more precisely, metaphors and other figures of rhetoric participate in the materiality of the cosmos and its physical elements” (forthcoming).

A few years back, I spent some time with a Tamil film crew on a sandstone plateau in central India. They were shooting an action sequence on the edge of a deep and narrow gorge.⁴ The steep and crumbling walls of that ravine held a kind of magnetic attraction: for the human designers and craftsmen who had occupied the site, yes, but also for the trees that had colonized those vertical walls, the monkeys that studied us from the safe distance of those branches within the ravine, and for the endless rocks, rods, paper cups, and measuring tapes sent clattering over the edge by the gusts of wind that also indulged in an immoderate exploration of those depths. So many of the images made by the crew went plunging themselves through a deep zoom lens, as though the world itself was in precipitous descent.

By no means was the film they shot here very good cinema—it was never intended as such. But the instance does convey something significant, I think, about what it means to think in images, as Kohn suggests that forests do. When we confront cinema, Deleuze suggested in his own Peircean adventure, “we find ourselves in fact faced with the exposition of a world where IMAGE = MOVEMENT” (Deleuze 1986: 58). To think this world “of universal variation, of universal undulation, of universal rippling” is to pursue the challenge of wresting thought’s images away from a human center of subjective consciousness—“to carry perception into

3. As Peirce writes, “When an idea is conveyed from one mind to another, it is by forms of combination of the diverse elements of nature, say by some curious symmetry, or by some union of a tender color with a refined odor” (1931–58: 6.158)

4. For the film *Siruthai* or “Leopard” (directed by Siva, Chennai: Studio Green, 2011). I was there to examine questions of art and imagination, toward a forthcoming book (Pandian forthcoming).

things, to put perception into matter,” to think with the world’s ceaseless becoming (Deleuze 1986: 58, 81).⁵

Do forests think like cinema? Kohn shows us how sylvan thought involves something like a montage of unexpected associations in the form of images: “leaf to leaf/jumping jumping/*chíriqui’ chíriqui’*” (2013: 175). But thinking of such scenes in the terms of cinema also attunes us to the crucial significance of what falls out-of-field: the dynamic and shifting relationship between what is visible at any given moment and what still lies beyond, “neither seen nor understood, but . . . nevertheless perfectly present” (Deleuze 1986: 16). I think of the immense power of what remains out of sight and focus in Kohn’s frontispiece photographs. Or, once again, of the field of vision framed by Kohn’s binoculars on that day beyond the landslide, the restorative glimpse of that tanager coming into focus through the lens.

In what ways does the redemptive quality of this image depend upon what falls beyond that frame: the “cinder blocks [and] polished river cobbles” (Kohn 2013: 47), or even the knob that rolls the bird into view? I wonder about other faces of the forest’s vitality: the dappling of its light and shadows, its colors and textures, its humidity and scent. Attending to such materials may promise more than an acknowledgment of their “brute factuality” (Kohn 2013: 91). At stake is our understanding of the very means of thought’s movement beyond the span of human agency and intentionality. Isn’t biotic life itself but a province of this universe we have colonized?

To provincialize life as well as language—this may seem an unreasonable thing for a living being to ask, most especially one whose kind has been responsible for the annihilation of so many other forms of life. But, once again, it’s survival that I have on my mind: the question of how to live and think with all those strange environments we have fashioned in the name of life’s own apotheosis. Reading Kohn, I begin to wonder: how do gardens, fallows, and plantations think, not to mention greenhouses, golf courses, or potted plants?

I slowly reread *How forests think* late this spring in a small patch of trees and shrubs, on a university campus in Baltimore. Caterpillars dropped from the branches onto the manicured leaves of bushes from who-knows-where. Squirrels foraged from the scraps still nestled in plastic wrappers. Songbirds called out against the mechanical thrum of the bioscience building. What would it take to see such a zone as one that we could think with, rather than merely about? What recourse do we have in thinking with such hybrids of the organic and inorganic, beyond lamenting their reduced biotic complexity? It is worth recalling that Gifford Pinchot, founder of the US Forest Service, numbered among the small handful of C. S. Peirce’s friends (Brent 1998). The modern science of forest conservation in the United States, with its signature aspect of uniform single-species stands, has even been ascribed as a neglected legacy of pragmatist philosophy (Minteer and Pyne 2013).

5. In his quick critique of what he calls “Deleuzian approaches” (2013: 40), Kohn seems to overstate the difference between Peirce and allied process philosophies. For a persuasive attempt to put such philosophies in conversation with each other, see Connolly (2011), who makes the following apposite observation: “the emergence of a fecund thought is closer to a viscous fluid flowing through a membrane than to the clean contours of a recollected image” (2011: 72).



There are profound conundrums that Kohn's book invites us to confront, to begin to wrestle with.

How forests think is a daring and inspiring book. I hope that the tenacity of my resistance here to some of its claims will index, more than anything else, the seizure of my mind by its sylvan imagination. I'll gladly take the red pill, jump down the rabbit hole, imbibe the *ayahuasca*. At the same time, I remain stuck on the question of "how": how anthropology moves beyond the human, but also the larger problem of how humanity moves beyond the same—the stubbornness of our inherited nature, the lingering potential of its malleability, the forces and channels that might further provoke its becoming-otherwise. Arguably, this is what ethnography has always had in its sights: movement beyond some determinate picture of the human, propelled by attention to the animate capacities of other settings, beings, and forces, to their potential for shock, laughter, befuddlement, or reverie.⁶

Kohn's book calls our attention not only to the effortlessness of being inside form but also the necessity of passing beyond it. This is where the ethical and political stakes of the project, as I understand it, ultimately lie. I think again of Gregory Bateson's image of the mind as a relay of transformative possibilities, like a man with a cane on a road: "the stick," Bateson writes, "is a pathway along which transforms of difference are being transmitted . . . the street, the stick, and so on, round and round" (2000: 465). Round and round, so on and so on, and yet something unexpected happens. We may find ourselves on a verdant mountain lodged in a modest box of black-and-white, with the horizon of a possible future before us.

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6. This is an argument that Stuart McLean and I develop in a forthcoming edited book project on *Literary anthropology*.

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