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## Natural History as a Practice of Kinship

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**W**e clamber out of the rafts onto the dry terrace, heading up into the side canyon, where, it is rumored, ancient pictographs and giant cottonwoods await. The first week of June, almost noon, this treeless terrace radiates heat. Our group—a dozen naturalists of diverse backgrounds and ages, drawn together on this river voyage by a shared sense of adventure and inquisitiveness—pushes for the bend in the canyon where we might finally gain some modicum of shade. While still in the harsh grip of the relentless sun, we're stopped in our tracks: we notice a living being atop the nondescript pile of rocks a hundred feet off the path. One after another, we gasp as we gaze through binoculars—startled by exquisite beauty. From a distance this lizard appears little different than the rocks on which it sits. Seen close-up, though, it is simply stunning—golden head and bright yellow feet; greenish back, spotted blue, ringed with golden stripes; brilliant orange patches; and chocolate brown-and-white patterning on a long tail, which droops off the edge of this jumbled sandstone platform. First we identify the species. It's an Eastern Collared Lizard. Once we think through these details of color and pattern, we recognize this being as an adult male. "It" becomes "he."

He sits motionless, but our group erupts into ecstatic whoops, trying but failing to keep quiet. A few days later, a photo of this lizard on social media elicits hundreds more awed responses.

We're all so hungry for kinship, so ready to affiliate with the beauty that emerges, when we bother to pay attention, from the seemingly drab background of our lives.



Eastern Collared Lizard. Photo credit: Thomas Shahan



Kinship. The sense of affiliation, of belonging. We all need it. But too commonly, we've lost this sense of connection in our human world, our windows rolled up tight, locks pressed shut, children kept indoors, neighbors unmet. As for the multitude of worlds beyond the merely human, our lack of kinship is so thorough it often goes unnoticed. I once wrote that "our deepest affinity is for this rich and remarkable world we live in—our fellow beings, the textures and colors of landforms, the luscious scents of each place we touch."<sup>1</sup> This kind of expansive, interspecific affinity is deep in our bones, encoded in our genes.

But we live in a historical anomaly—human acknowledgement of the rest of the living world has never been so rare as today. Over the past couple centuries, the dominant Western culture of commerce has developed strategies to push this broader sense of kinship aside and foist upon us the tragic idea that connection with more-than-human nature isn't worthy of adult attention. Yet capitalist impulses often dissolve in the presence of the innate, self-directed fascination we were all born with—what's *this*? Watch any small child anywhere, and you'll witness how deeply embedded is our human curiosity about our world—leaning down to turn over stones, stretching to peer into a bird's nest. Collective disregard of our inherent, full-on attentiveness to the world represents a momentous miscalculation, a massive plunge to the edge of a psycho-spiritual abyss.

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It's critical that we break down barriers to affinity so that we can open up our sense of kinship. This is conspicuously true these days in human social dynamics, as we witness mass anxiety—despair at random violence, walls along borders, and neighborhoods cordoned off with iron gates. But there's an even deeper need to transcend the eco-tribalism of our own species—the self-destructive notion that only we humans matter.

Our species must strive to re-inhabit a world of broader and deeper connectivity and interpenetration. No task is more urgent, no effort more fundamentally human and humane than to enlarge our circle of affinity, our web of kinship. As the writer Scott Russell Sanders put it: “Our sense of moral obligation arises from a feeling of kinship. The illusion of separation... is the source of our worst behavior. The awareness of kinship is the source of our best behavior.”<sup>2</sup>



One hundred fifty feet above the muddy floor of this tropical rainforest—snow-clad Andean peaks one hundred and fifty miles in one direction; the Atlantic coast, where this surface water eventually flows, more than three thousand miles in the other. Opal-crowned Tanagers—smaller than my fist, their luminescent cobalt plumage contrasting with a glowing stripe above the eye, and a patch of the same hue at the base of the tail—appear out of the receding rainfall of the canopy, descending like tiny feathered jewels into the welcoming watery cups of

bromeliad flowers, filled to the brim by last night's downpour. One by one, these diminutive birds begin plashing themselves clean in the freshly captured rainwater, here in this habitat usually beyond the realm of humans. Yes, this moment represents data—a new species for a list. But any impulse of rationality is overpowered by something more primal—the sudden flush of awe, suffusing through my whole body: *these* gorgeous beings in this intimate encounter. The sense of this moment as a *gift* reverberates long after I've descended back to the forest floor and followed the faint trail back to where our canoe waits at the shore of the blackwater lake.



So many of our cultural assumptions work against connection and kinship. Indeed, our very language is structured to deny kinship with Others. Native American ecologist Robin Wall Kimmerer has written: “In the absence of knowing the names of our neighbors the plants, we are compelled to refer to them with the ubiquitous pronoun ‘it.’... ‘It’ robs a person of their humanity and reduces them to the lowly status of an object. And yet—in English, a being is either a human or a thing.”<sup>3</sup> She goes on to assert that we need a new pronoun—one that denotes respect and animacy rather than objecthood. Drawing upon her native Anishinaabe language, she suggests *ki* as a respectful pronoun for an animate being of the Earth. And the plural of *ki* already exists in English: kin. Thus, what might seem at first to be a linguistic contrivance, turns out to lubricate the psychic gears of our turning toward kinship. As Kimmerer states, “The language of animacy, of kinship, can be medicine for a broken relationship.”<sup>4</sup>

Words like *ki* can open new possibilities. Words can also constrain experience. For example, the sterile, bureaucratic word “environment” is part of the problem for “environmentalists.” Who can love such a dry term? The root of the word, *environ*, denotes “surroundings,” or simply *what's around*. Environment, by its very nature, is vague—removed from, and less important than, us. It certainly doesn't prioritize a sense of kinship with the greater world. Simply referring to animate beings with respect—acknowledging actual individual lives rather than abstract renderings of lives—goes a long way toward establishing a baseline of kinship in communication.



It's not hard to be distracted by *Penstemon* flowers. They come in several colors—scarlet, lavender, white-tinged-with-pink; all are tubular (the botanist would say, “fused corolla”), but the flower tube of some is dramatically elongated, while in others

it is scrunched-up and squat. Even more delight comes to those who look inside. *Penstemon* is named for an anomaly in one of its stamens—the male part of the flower, a long filament capped by the pollen-bearing anther. In this genus, though, one of the five stamens differs from the other four: it lacks pollen but shows off other features instead. Different species exhibit distinct shapes and textures of this fifth stamen, the “staminode”—silky smooth in some, crowded with hairs in others. Just as the flowers display different colors on the exterior, so the inner forms present diversity, too. And a careful look inside this flower reveals another botanical truth: this being is neither he nor she, but both. When we pay attention, we find our social assumptions challenged, even more fully than they are in human political discourse. It turns out that in the plant world, plants of only one sex are very much in the minority. What is normal in nature can surprise us. In botany, “bisexual” and “perfect” are synonyms.



How do we rediscover passion for the world? What is required to build a sense of human community? Mutual respect, an opportunity for positive social interaction, and clear communication. The same ingredients—frequent interaction, honesty, and a strong sense of respect—undergird a healthy sense of belonging, of kinship, with the fuller community of life. What promotes frequent interaction with and respect for non-human Others? The practice of *natural history* creates a forum for interaction with Others, encouraging compassion and respect, helping us rediscover passion for the world and each other.

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Natural history is the practice of falling in love with the world. Or, as I’ve defined it previously, “a practice of intentional, focused attentiveness and receptivity to the more-than-human world, guided by honesty and accuracy.”<sup>5</sup> Natural history, then, is a *practice* of attentiveness—a doing; a verb, not a noun.

The term natural history—*historia naturalis*—was coined by the Roman philosopher and writer Pliny the Elder in the same century that Jesus walked the Earth. Pliny’s *Historia Naturalis*—literally, “the story of nature”—was the first encyclopedia, the first attempt to capture in writing everything

known about the world around us: a multi-volume compendium on plants, animals, minerals, stars, and a great deal more.<sup>6</sup> From the beginning, then, natural history was expansive, broadly and deeply inquisitive. While the term natural history is two thousand years old, the practice of open-minded attentiveness goes back to the very origins of our species. Different contexts have provided different variants of natural history: curiosity cabinets in Victorian England, rows of shells in a sea-shore cabin, or as a subset of scientific ecology in the world of twentieth century research. But, across the stretch of history, there has never been a moment in the story of human existence when natural history was so little practiced.<sup>7</sup>



Heat waves shimmer, here at the desert’s upper edge—the narrow ecotonal band where saguaro cacti and mesquite from below intermingle with junipers from the mesas above. Piquant Seepwillow scent and the damp arroyo sand. Butterflies—blues, whites, admirals, and, especially, Queens (think smaller, darker Monarchs)—fountain up through willows along the length of this short canyon. The buoyance of many thousands of butterflies contrasts with the stark stillness of the hot, arid plain just beyond. This burst of life energy, oblivious to human concerns, transforms the arid landscape from a sere backdrop to a many-colored tapestry of delight. It helps me transcend the confines of my busily thinking mind and journey into the rich realm of the unexpectable—often joyous, occasionally horrendous, always enlivening.



Attentive natural history helps us see and acknowledge more of the world. Watching birds at a backyard feeder, tracing the veins of rock with our fingertips, getting on hands and knees to look at the miracle of a spider’s web, sitting back on a mountain peak and imagining the tectonic forces of creation and the glacial forces that sculpt the jagged ridges before us. There is literally no limit to what is presented before us each day, available for our attention. By its very nature, natural history practice extends our psyches beyond the limits of the purely human into the realm of the greater psyche of the world. Field biologist Christopher Norment has described natural history field study as “sympathetic observation.”<sup>8</sup> Research scientists Ron Pulliam and Nickolas Waser proclaim the importance of “natural history intuition.”<sup>9</sup>

Along with a great many colleagues, my own work has been focused on promoting a renaissance of expansive, interdisciplinary natural history, fostering opportunities for

people of all backgrounds to remember what it means to be in love with the world. For many years, this work took place from a professor's perch, leading students into the field from Alaska to México, Southwest canyons to Maine coast islands. More recently, I've been at the helm of a small non-profit with a big mission—the Natural History Institute ([naturalhistoryinstitute.org](http://naturalhistoryinstitute.org)), which seeks to provide leadership and resources for a revitalized practice of natural history that integrates art, science, and humanities to promote the health and well-being of humans and the rest of nature. This work involves public lectures, art exhibits, scientific research, and convening confluences of ideas. Sometimes, it takes new friends down a river to encounter the breathtaking surprise of a colorful lizard or elevates us into a rainforest canopy to discover bathing tanagers.

*Natural history practice extends our psyches beyond the limits of the purely human into the realm of the greater psyche of the world.*



A blurry backdrop becomes sharply etched, gains depth, becomes three-dimensional. And then, as one grasps the immense passages of time implied by the most conspicuous element of this landscape—the rocks—it becomes four-dimensional. Reddish rock and generic green transform into desert-varnished Navajo Sandstone, fronted by Fremont Cottonwood, Rabbitbrush, Coyote Willow. Unnoticed squawks cohere into Towhee, Grosbeak, Yellow Warbler, the crazed burble of a hidden Yellow-breasted Chat. As we pay attention, stories emerge out of vagueness, increasing in clarity. This rock, born of continent-wide Sahara-like dunes, two hundred million years old; this bird, just returned from México, like me, seeking leafy shade, exploding with song, exclaiming about love.



These intentional changes to our consciousness—simple yet profound shifts in how we speak and think, what we choose to pay attention to, and that we *do* choose to pay attention—help us embrace more of the world, understand it more fully, and feel it with greater vibrancy.

And this is, quite literally, what we were born to do. The evolution of our species—from a naked vulnerable biped on the savanna to successful inhabitant of virtually every habitat on

the planet—selected for our immense capacity for attentiveness. We were not the fastest, the strongest, nor the most agile. But our highly attuned eyes and ears and our inquisitive sense of touch combined with the new twist of our developing cleverness, our facility for memory, and our innovative aptitude for passing knowledge on, story by story. Thus, we could adapt and learn without waiting for our genes to change.

We are built to pay attention to the world around us. A sense of kinship is a natural by-product of this evolutionary heritage. It's well past time to reawaken to our senses, to re-activate our innate skill at attentiveness, our great natural capacity for being *kin*—animate beings of the Earth reaching out for connection.

Let's just say it: we need to *love* this world. Natural history opens the door.

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#### NOTES

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2. S.R. Sanders, *A Conservationist Manifesto*. (Bloomington: Indiana University Press, 2009), 214.
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5. T.L. Fleischner, "Natural History and the Deep Roots of Resource Management," *Natural Resources Journal* 45 (2005): 1-13.
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9. H.R. Pulliam and N.M. Waser. "Ecological Invariance and the Search for Generality in Ecology," in I. Billick and M.V. Price, eds., *The Ecology of Place: Contributions of Place-Based Research to Ecological Understanding* (Chicago, IL: University of Chicago Press, 2010), 85.