



Living Earth Community

Multiple Ways of Being and Knowing

EDITED BY

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10. Contemplative Studies of the 'Natural' World

David Haskell

What might be learned by paying repeated, open-ended attention to particular places? Such acts of ecological meditation might reveal truths that complement and feed those uncovered by scientific experimentation, theoretical analysis, imaginative exploration, and creative expression.

I undertook my own exploration of this question in part as a response to the dislocations of academic culture. I was trained to use 'study systems' to answer questions of general interest. Questions from theory drove my engagement with living communities. Novelty was valued over familiarity: funding agencies and journals rewarded new ideas, not the process of listening to what was, on the surface, already known. Seeking new insight and knowledge is part of the restless exploratory spirit of science. These explorations reveal much that is useful, beautiful, and life-affirming. Yet, question-driven, agency-sanctioned research on a short-term funding cycle can reveal only part of what there is to know in this world.

And so: an experiment in observation. I set aside the next grant application and walked into the forest. I selected a rock flat enough to sit on for a while, and then started my watch. A circle of forest, about one square meter in area. I brought a hand lens and a notebook. I left behind the technologies — cameras, DNA sequencers, sound recorders, laptops — that were so helpful to me in other parts of my work. I also left behind hypotheses and lesson plans. Such focusing devices are useful, but they pre-determine and narrow our attention when we walk into a forest. Instead of a question to guide what I discovered, I brought

a commitment to return to a particular place and try to pay attention. I returned, over hundreds of visits, through a year. Then, over many years. Later, I used a similar practice with individual trees located in disparate places around the world. Show up; listen; repeat. This is, of course, an application of meditative practice in an ecological context.

My books relate the stories that I discovered in each place. Here I share a few general thoughts about the nature of these experiments in observation. I make no claim for novelty in either the practice or what I learned. Indeed, the fetish of intellectual or artistic innovation, so central to how we value ourselves and others in academia and the world of culture, is perhaps best set aside as we enter a contemplative practice. If novelty does eventually emerge, it will perhaps be the surprise of apprehending the ordinary in ways that are new to us or, later, the opening of new opportunities to share such familiarity with others.

Opening the Senses: Finding and Telling Stories of Place

We, like all animals, are covered in neuronal sensors. Most of these report data that are irrelevant to the task at hand at any given moment. So, the brain ignores or actively suppress most sensory input, focusing on the few stimuli that our neural circuits deem most relevant. Even these 'relevant' stimuli are filtered by our brain's limited capacity to receive and analyze information. The Ford truck engines, bicycle tires on concrete, ambulance sirens, house finch warblings, and wind smattering in cottonwood leaves outside my window were not present to me as I wrote this paragraph. This acoustic richness was blocked from my conscious awareness until I reached out to find them. Nowadays we are also surrounded by stimuli designed by humans and our computer algorithms to further capture, redirect, and narrow the scope of our attention. 'Opening the senses' is therefore a process that must countervail the distractions and filters imposed by both human ingenuity and animal evolution. Physical and psychological well-being demands a vigorous commitment to ignoring stimuli. In a world where closing off is often necessary, we perhaps also need spaces in which our deliberate practice is to re-open. Choosing where this opening will happen is the discipline of directed attention.

Start, perhaps, with a sensory inventory in a familiar space outdoors. Pick a sense, hearing, for example. Pour your attention into your ears. Name the sound. Return your attention to your ears. Name the sound that was behind the first. Then the next. Each time gently return your attention to the ears. Do the same, but don't name, just describe each sound, find words for the physicality of each aerial vibration. Then again, listen, repeatedly, but no names and no descriptions, just presence in the sound.

Within the first twenty seconds of the inventory, the richness of the sensory world becomes apparent. Thousands of sense impressions reveal themselves every minute. The richness of our inner world also emerges, sometimes forcefully. Our mind wanders to some other place, a place of distraction, or emotional energy, or boredom. We acknowledge the mind's wandering nature, then return to the inventory of the exterior world.

From this sensory treasury we gain two gifts.

First, our curiosity and creativity are fed. Stories of place, previously hidden by inattention, emerge. Here is where intellect and creativity can intersect with the world. Contemplative practice is not the opponent of intellectual inquiry and artistic expression, rather it is one method by which interior processes can transcend their limitations, then integrate with understandings that originate not in the self, but in the community of life.

Second, we can tell the stories of our place. The process of writing or of oral storytelling transports one human mind into the experience of another. Such a feat requires some help, especially if the transportation is to be convincing and emotionally powerful. Attending to the sensory particularity of place, then faithfully and vividly reporting this particularity is a helpful skill for any storyteller. Contemplative practice, seemingly so inward, is in fact a preparation for interconnection with other people.

Integration: Attending to Interconnection

In my work as a scientist and a teacher, I bring to every place a set of hypotheses or pedagogical goals. These focusing devices are powerful and necessary. But they also emerge from particular places

in the structures of knowledge that we use to understand and then communicate the nature of the world. Walking into the forest to gather data on the evolutionary genetics of endemic snails is a different walk than one that measures the relative abundance of understory plants. Both require me to arrive at the forest with pre-determined narratives. The same is true of the various field labs that I lead with students. In each of these cases, we enter the forest not to discern which stories are most powerful on that day in that place, but to bring a story, embodied in our questions, to the forest. What we bring is, at best, a simplification of the interconnected processes of the world and, sometimes, merely a projection of unrooted theory.

The two practices — focused questioning and open-ended attention — are not in opposition to each another. Rather, reciprocal nourishment happens. Our institutional and intellectual structures, though, strongly favor targeted questioning and offer little encouragement for repeated attention to place. Within higher education, especially in the sciences, there are few if any mechanisms to help us deepen this latter practice, few formal structures or communities of colleagues from whom to learn and be guided.

Greater emphasis on using and refining the practice of open-ended attention might yield several benefits. Foremost among these is a counterweight to disciplinary specialization. Tapering and deepening of professional expertise are important and fruitful processes. A complementary practice of opening to the integrative insights of contemplative practice yields different kind of focus: a tapering and deepening of relationship to place rather than to a set of ideas and questions.

Limits

Extended contemplative engagement with place gave me a thorough schooling in my limitations. This was an education in the structure of knowledge, a spur to further investigation, and an invitation to humility.

Limits became apparent first through my senses. Returning again and again to each sense, I was drawn into the subtleties and fine details, encountering organisms and their signs on the edge of perception: tiny insects and nematodes undetectable without peering closely at the leaf

litter. Mats of fungal strands that disappear into the soil as they ramify and flee the human eye. Odors of microbial life. Sounds of animals pushing against below-ground pebbles. The changing taste of the air through a morning, a reminder of the chemical-microbiological milieu in which we swim. These limitations of my unaided senses were a bodily reminder of human evolutionary ecology, each sense tuned by natural selection to the human niche. These sensory limits then remind me of more profound chasms. Even the most sophisticated microscopes and sequencers give only a partial sketch of life's community, a reminder of ignorance.

A sharp awareness of the limits of my knowledge followed on the heels of the lesson of sensory limitations. I started my forest observations after several decades of studying, researching, and teaching biology. Yet I was stunned by how little I knew of the forest community. Names for most species eluded me. The stories of each species were even more hazy. This was especially true for the very small creatures, the tiny diptera, fungi, and nematodes. Before I started this project, I thought I had a clear intellectual understanding that no-one can apprehend even part of a forest community. Days and days of sitting in this ignorance drove that understanding into my emotions and body. What was left was wonder at the unendingly fascinating and diverse world that we inhabit, mixed with frustration at my incompetence and dread as I took on the imposter's role of writing and teaching about a forest that will forever elude my understanding.

After my periods of observation in the forest, I went to the library to ferret through the primary literature. The forest gave me a reading list, a set of questions. One of my goals as a writer is to share this knowledge from the literature, to unveil and bring to life for non-specialists the remarkable findings of modern ecological and evolutionary biology. Here, too, limits are very clear. Many of the forest's actors are unknown and unnamed, and their roles and history unknown. These limits are being rapidly pushed back by the inquisitive energies of scientists, at least along the fronts deemed worthy by funding agencies. Nevertheless, I come away from the forest and the library with a humbling sense that our knowledge is vastly overshadowed by the enormity of life's diversity and the complexities of ecological stories. Our actions as citizens and members of life's community take place amid much ignorance.

The limits of our observational powers and the youthfulness of scientific understanding are limits that can, in principle, be overcome with technology and time. But even if knowledge were to be vastly expanded, epistemological limits would remain. Does a forest have inherent value? What is the most responsible way to live in relation to life's community? Is a particular management proposal good for the forest? Scientific data are needed to inform our answers to these questions, but data alone are insufficient. Ethical claims must draw on modes of understanding that include science but also transcend science's remit and abilities. Contemplative engagement within life's community may offer a bridge between science and ethics, as outlined below.

A Search, through Beauty, for Objective Foundations of Ethics

Where should we root our ethics? This is a vexed question for biologists. Contemplative observation of living communities might ease some of this trouble.

In an era of climate disruption, biotic impoverishment, and human injustice, finding a ground for ethical discernment and subsequent right action is critically important. Science, especially biological science, offers data that reveals and quantifies our problems. Science is also necessary to evaluate the relative technical merits of solutions. But science cannot tell us why to care or act. Indeed, some biologically-inspired philosophy claims that such ethical questions should be answered with nihilism: ethics is, in this view, a mental mechanism evolved by our ancestors, with no objective substance to beyond its effects on our nervous system. Ethics is thus posited as a neurobiological phenomenon, not a guiding imperative that exists beyond the human. This position seems incompatible with biodiversity conservation and environmental activism. These fields of study and action are founded on ethical imperatives. We should, they assume, protect life's community not only for its utilitarian value to humans, but for its own sake. This 'own sake' is meaningless if the ethical nihilists are right.

Theistic traditions answer this challenge by locating their ethical foundations in beings or relationships that exist partly beyond the natural order. Ethical nihilists and theists may be right, but I seek a

foundation for ethics that is neither theistic or nihilist. I propose that contemplative engagement within the community of life may provide part of such a foundation. In *The Songs of Trees*, I build this case with argument, example, and metaphor.¹ I claim that participation in living communities leads to a mature sense of ecological aesthetics. This sense of beauty then serves as an integrative and partly objective foundation for ethics. In the following paragraph, I summarize the structure of the argument.

Life is made from networked relationships. We participate in these relationships at all times through our microbiome, diet, sub-cellular biochemistry, ecology, social connections, and culture. Contemplative observations of a particular place bring that network into awareness. Over extended periods of time, we come to understand and participate in the network through multiple modes: intellect, emotions, senses, microbiology, memory, and conversation with others. The deeper and longer our engagement, the more our body, mind, and emotions awaken to the strands of living network in which we live.

One result of this process of contemplative engagement is that our aesthetic sense matures. We come to understand what is broken or beautiful in our place in a deep, integrative way. We, in Iris Murdoch's words, partly 'unself' into the network, gaining a deep sense of beauty that transcends the 'self'.²

Aesthetics can, of course, mislead our ecological judgement through superficial sensory impressions. But in a mature sense of aesthetics, our brains draw together all we have learned from participation in the network into a sense of beauty that is integrative and far-reaching in its knowledge. This may serve as a (partly) objective foundation for ethical discernment.

In what way objective? In partly transcending the 'self' and entering into the experience of life's network, our sense of beauty and our judgement of the good are no longer properties solely of the individual. They reveal the nature of the network. Every 'node' or organism in the network of course has a different perspective and different sensory

1 *The Songs of Trees: Stories from Nature's Great Connectors* (New York, NY: Viking, 2017).

2 Iris Murdoch, *The Sovereignty of Good* (London: Routledge & K. Paul, 1970; repr., London: Routledge Classics, 2001), pp. 82–91.

abilities, but disparate parts of the network will converge on similar judgments, especially through a practice of opening to the network.

This view has four interesting consequences.

First, ethics are no longer confined to humans. Other species, in their own ways, can unself into networks and draw ethical conclusions. The more extensive the unselfing, the deeper the ethical insight.

Second, ethics are participatory. Sound ethical judgement emerges from lived experience within living networks. The intellect alone is insufficient.

Third, networked relationship relies on attention and conversation. We will reach better conclusions through listening to life's community, other humans included, a process that is often absent from our divided and siloed discourse about questions of ethical importance.

Fourth, beauty is an important guide and should therefore be re-elevated in our esteem, given attention in our educational systems, and its value cultivated through professional institutions. Although experiences and discussions of beauty are rarely included in science curricula or policy processes, the human animal continues to be deeply moved by beauty and our decisions strongly shaped by aesthetic choices. Unguided and shallow aesthetic judgments are dangerous, but mature and experienced aesthetic judgements are sources of great insight.

Contemplative experience can integrate aesthetics, ethics, and science — an integration acting as an antidote to institutional, educational, and psychological fragmentation. This is not surprising: contemplation of a forest, a stream, a city block shows us the integrated nature of the life's community and thus of our own being.

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