

Working the Dark Edges

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Abstract

Environmentalism's wider and wilder possibilities today appear as regions of seeming darkness that bracket or frame acceptable environmental thinking. One of these barely-mentionable darkneses is outer space—the cosmos. Another is the inner and chthonic powers of the land and natural beings generally. This essay aims to bring these two kinds of darkness briefly but provocatively into view, both in the interests of a more expansive sense of environmentalism's possibilities and to point toward some pedagogies that might edge us farther in such directions.

Résumé

Les vastes possibilités de l'environnementalisme semblent aujourd'hui des régions de ténèbres qui enferment et encadrent nos propos sur l'environnement. Une de ces zones sombres à peine nommable est le cosmos. Insondables sont aussi les puissances intérieures et souterraines de la terre et des êtres vivants en général. Cet essai a pour but d'amener ces deux zones ténébreuses à la vue de façon brève mais provocante, ceci afin de promouvoir une vision plus expansive des possibilités de l'environnementalisme et de pointer quelques pédagogies qui nous orientent dans ces directions.

Keywords: astronomy, cosmos, darkness, environmentalism, radical environmentalism, science, space, totemism

The Call for Papers for the Loon Lake Gathering invited respondents to take up certain matters that are “uncomfortable and difficult,” “questions we avoid, resist, or ignore”: unacknowledged exclusions and complicities, farther possibilities un contemplated, resisted, or sometimes feared, even by “us”—that is, I take it, by radical environmentalists. The “Dark Matter” metaphor provocatively reminds us that some of these exclusions and complicities may have immense gravitational effects, so to speak, on all of our thinking, like the more literal form of “dark matter” that according to astrophysicists makes up almost all of the physical universe but is not observable, known to us only by the contortions it creates in what is visible.

This paper considers two kinds of dark matters, so conceived, that also, strikingly, carry specific and marked symbolic overtones of darkness themselves, while still bordering or edging the familiar regions where we do shine our philosophical and pedagogical lights. One of these barely-mentionable darkneses is outer space—nothing less than the rest of the universe. If “environment” does

not in fact stop at the surface of the planet—if life on Earth, including our own, is actually in flow with the whole cosmos—what then for environmentalism? The other of these seemingly dark matters lies at another and opposite edge: it is the inner or chthonic powers of the land and natural beings. Philosophers and historians have thoroughly documented the backgrounding and (indeed) obliteration of older and indigenous worldviews in which natural beings and nature itself were enspirited and met us as powerful presences in their own rights, requiring careful negotiation at every turn. Few environmentalists today, however, dare to put so much as a toe back into these waters, at least in their official writings or practice. But what then *does* our critique imply?

For symmetry's sake I am tempted to say that one “dark edge” is a kind of darkness *beyond* Earth and the other is a kind of darkness *within* Earth—the Cosmic and the Chthonic, as it were—but no doubt this is to make things too neat. Moreover, it may well be possible to move willingly enough in one direction while resisting the other. My main aim is simply to open up some provocative possibilities on two quite different edges of environmentalism as we know it today, and thus to explore, if only briefly, what it might look like to edge out in both directions, pedagogically and philosophically as well.

News of the Universe

From an astronomical perspective, environmentalism is strikingly Earth-bound. Tom Regan invoked the notion of Earth-boundedness to label the field itself in an early reader (Regan, 1984). Even environmental philosophy in an expansive key still stops with the planet as a whole (e.g., Rolston, 1999). Typically, in this story, the environment is framed as a mere “thin film of life on a ... chunk of rock and metal” (Sagan, 1994, p. 3). “Space” beyond Earth is a sort of empty frame, the darkness and lifelessness with which Earth (or “Spaceship Earth”) contrasts, as for example in the famous “Earthrise” photo, now the equally ubiquitous Earth Flag: space is merely the darkness or void/vacuum within which the pearl of “our precious home” is set.

Yet in fact Earth is not a closed system, not self-contained or self-sufficient. Earth is *not* a sealed and self-sufficient spaceship. Life is inextricably linked on all levels with the rest of the universe's massive material and non-material fluxes. Life on Earth obviously depends on Sun, for one thing, and also on certain more subtle gravitational rhythms of Moon and the other planets (Webb, 2002). Less obviously, Earth is in interaction with the cosmos materially as well. A hundred tons of Mars fall to Earth each year, for instance—rocks knocked into space by meteor impacts, spiraling in toward Sun until their orbits intersect ours (Morton, 2002). In between the planets there is solar radiation and a “solar wind” of other charged particles from Sun; dust and gas (atmospheres don't end, they just get very, very thin); and comets, asteroids, and rocks of all sizes, some from beyond the solar system, dust from which is always arriving on

Earth too. Extraterrestrial material arrived so constantly and spectacularly in the course of Earth's earlier history that scientists officially call that period the "Late Heavy Bombardment."

We are not just talking about rocks and metal here. The current theory is that Earth's water, all 300-odd million cubic miles of it, actually arrived by comets (Morbidelli et al., 2000). Moreover, life itself, in the form of bacteria at least, very likely is part of this vast interchange too. "Extremophile" bacteria can go into indefinite deep freeze and revive, and flourish in every known environment—they even grow on control rods in nuclear power plants. On Earth there may be more bacterial biomass in the rocks than on the surface—life's "film" is not quite as thin as we usually think—and, because it is not dependent on atmosphere, the same may readily be the case on (or rather, *in*) other planets as well (Gold, 1992), as well as in the space-faring water or rocks. If it turns out there is life on/in Mars, for instance, it may well be related to life here. Earth's life may even have begun on Mars, since Mars settled down as a planet earlier than Earth did and apparently had its wet and warm halcyon days too, a few hundred million years before Earth. So not only might there be Martians ... they may be *us* (Morton, 2002).

Nor are we necessarily so Earth-bound, even in the most literal sense. Humans have already left the gravitational well of Earth, venturing to Moon, and human-made spacecraft have touched nearly all of the planets, some of their moons in turn, and even left the Solar System entirely. That famous "Earthrise" photo itself is a product of the Apollo program—Stewart Brand even holds that that one photo was worth the entire cost of the space program (Brand, 1999). And one way or another, we are already preparing to go again, and farther.

The solar system, in short, is itself an interacting and in an exact sense ecological system. Life could be everywhere, and constantly on the move too. On still vaster time- and space-scales, the same may be true of the cosmos as a whole. Planets beyond our solar systems are now being verified by the bushelful; recent estimates are that in Milky Way alone there may be at least 60 billion habitable planets (Yang, Cowan, & Abbot, 2013).

Cosmic Learning Edges

Even a standard astronomy course, touching on any of these themes, may radically expand students' sense of cosmic belonging, prompting us beyond our habitual anthropocentrism as well as beyond that natural but naïve geocentrism that astronomy has taken exception to at least since, well, Copernicus (Weston, 2012). The general theme, just as with environmentalism, is that everything is vastly bigger, older, and more dynamic than we usually think. Those of us who struggle hard and long to trouble human-centrism generally, only to find it nonetheless resisting so hard and looming so large, may therefore find astronomy a surprising, and surprisingly powerful, ally.

It is possible to work this pedagogical edge in more venturesome ways as well. For one, teachers might try to expand students' sense—quite literally *sense*—of inhabiting a planet, an actual body in space, rather than somehow a “ground” that pushes everything else up into a spectacle-sky. Any of the tens of thousands of available photos from beyond Earth (rings of Saturn; nebulae everywhere; astronauts and their landers standing amidst the mountains of Moon like the diminutive humans in Chinese landscape paintings) may begin to shift people's perspective in this way. Yet some critical re-viewing is necessary as well. Consider the classic “Earthrise” photo one more time. “Below,” in the photo's usual orientation, is Moon. The astronauts who took the picture always insisted that this is not how they actually saw the scene. Weightless in space, of course, there is no clear up or down anyway, but in a way that is just the point. The astronauts report not seeing Earth “rising” but rather seeing it *emerging*, with Moon on the *side* of the scene. So if you are looking at the iconic photo, turn it on its side: rotate it 90 degrees. Now Earth and Moon appear as *bodies in relation*. Just rotating that photo a quarter-turn is a fundamental re-orientation to Earth itself. We do not stand apart from the Great Dance, but are part of it too.

A related exercise of Brian Swimme's (1996)—one I often do with my classes—leads in a similar direction. Lay down on your back and look up into the sky. Now consider: you are not really looking *up* so much as *out*. You can get a vertiginous sense of this by reversing the usual supposition entirely and picturing yourself looking *down*—hanging unprotected over the Void. So why are you not plummeting down into the sky or the stars, like some hapless skydiver except going the other way, never to return? The answer is Earth's attraction, of course, but now it feels rather more real. It's gravity, yes, but that it pulls “down” is only a convention. It plasters us to itself even if we are lying on the bottom (so to speak) or side. Once again, we begin to experience Earth as a vast body, not “below” us but literally behind us. Earth itself has our backs.

Radical in eco-philosophy these days is to speak of the body and animal embodiment with a consciously anti-dualist reverence and welcome. But the fundamental body here is not ours, I would argue, or indeed any animal body. From an astronomical perspective it is Earth itself, in relation to other bodies, again, in a vaster system. One might get a similar perspective just from learning to see the planets and Moon in motion: to imaginatively trace their lines of movement in the night sky, so you see the sky not as a flat spectacle but, again, an immense system of vast bodies flinging themselves through a space that they mutually define and sustain. This is how it came to me, at least. You can look up—or rather, *out*—and see it all in motion, and Earth too, again, part of the whirl.

Is it deflating to come to see Earth as but one small planet of a rather ordinary and out-of-the-way star in one vast galaxy among hundreds of billions of others? Yes—and no. Such a view should be no more deflating than to see human life as one form of life among others in larger ecosystems with an almost

incalculable number of others. Some argue that Earth may be the only planet with life in the entire universe (Ward & Brownlee, 2004), but I find precisely the opposite argument far more persuasive: that life cannot be so passingly rare. (Even just statistically: if the probability were really that low, we shouldn't be here either.) *That* universe would be desolate indeed. In the real one, relation and fertility may be everywhere (Weston, 2012). As my colleague Martin Fowler argues, the message is *belonging* (Fowler, 2013).

The Other Dark Edge

A growing literature, visible and treasured at least in present company, argues for communicative interaction and meaningful co-intention on every level of the natural world. David Abram (1996) beautifully re-animates animism itself in a phenomenological key, interweaving as well a theory of the evolution of language as a human appropriation of the world's communicative magic. A raft of careful work in animal communication is sparking whole new interdisciplinary fields of inquiry, such as "anthrozoology" (DeMello, 2010). Researchers are extending biosemiotic studies into frameworks for what Ramsey Affifi calls "educative and collaborative approaches to all interspecies relations" (Affifi, 2014, p. 75). Hans Peter Duerr, like Abram a figure of the margins and student of the old wild stories, reminds us that the "wilds," both outer and inner, always surrounded and still surround and shape culture (Duerr, 1987).

Continuing, Vine Deloria teaches us to understand shamans who dance with the approaching rain not as somehow trying or claiming to *make* it rain—that reading of things now begins to seem rather uncomfortably revealing of the modern observer's preoccupation with control instead—but rather "to participate in the emerging event" (1999, p. 50). Panpsychist metaphysics is being re-animated too, for example by the Australian philosopher Freya Mathews, whose 2003 book *For Love of Matter* works out a modern Spinozism in which all matter is attributed a conative "inside." Most of these thinkers encourage us to view human subjectivity not as the primal frame within which everything else emerges, but rather as itself emergent with a larger subjectivity, "always already an emanation of land, of country, of world" (Mathews, 2005, p. 103).

On bases like these we may again begin to envision another kind of Great Dance of which we are also a part, according to what Gary Snyder calls the Old Way (1990): a world in which Earth beings of many sorts meet us as powerful presences in their own rights, requiring careful negotiation at every turn. Yet, strangely and jarringly, this kind of vision also remains the darkest of edges for many of our fellow environmentalists, as well as most academic environmental thinkers, for whom the Old Way is at best a kind of naïve sentimentalism and at worst actually fearsome. No articles whatsoever in the massive and presumably canonical *Encyclopedia of Environmental Ethics and Philosophy* (Callicott & Frode-man, 2008), for instance, go anywhere near topics like animism, panpsychism,

witchcraft, shamanism, or indigenous worldviews. Most of us know better than to bring up the Old Way in serious academic company, at least as anything other than an anthropological curiosity: we would be quickly and patronizingly dismissed as credulous, soft-headed, prone to talking to birds or Thunder or plants. We know also that the Old Ways worked their own dark edges: “environmental education” on the wilder of these did not mean acquiring another kind of “literacy,” but more like desperately hanging onto the tail of your shaman as she transformed into a jaguar. Herein lies danger for the devotee as well (Duerr, 1987).

I certainly do not claim that the old vision must be correct in all or even any particulars, or that it somehow can be made safe or even fully comprehensible to us. Surely, though, it ought not to be *undiscussable*, especially in environmental circles and in light of the work cited at the beginning of this section. We ought to find it odd that our historians critique Christianity’s de-animation of the entire “pagan” paradigm (White, 1967) but somehow seldom manage to contemplate the *re-animation* of the world (or rather, recognition that the world remained/remains animate all along) that one would think would follow. White himself, strikingly, offers only the pale, Christianized, and decisively “failed” (his own word) nomination of St. Francis for what he calls “the patron saint of ecology,” while fuller-blooded animisms are relegated to anthropologists and other students of outdated curiosities: regretted—maybe—but only at a safe distance.

Something else must be blocking us as well. C. G. Jung (1964) had a sense of the reason, I believe, when he pointed out that the “chthonic spirit,” as he called it, is deeply and anciently associated with the occult, with hidden forces of nature, and with witchcraft. Jung construed the ancient world’s Earth-born gods as primarily a projection onto nature of the human fear of our own impulses—a darkness and danger within our own souls—though he argues that they have a creative and life-giving side as well. Mathews (I wonder) might reverse this and argue that they genuinely *are* Earth forces that structure our individual subjectivities in turn such that we might more truly understand *ourselves* as chthonic or Earth-born beings.

Either way, though, there is a palpable fear here. And that fear has consequences. The radical derogation of darkness, on the losing side of what eco-feminists identify as dualism and hierarchy, is also at its core a derogation and devaluation of nature itself—for its changeability, its materiality, its multiversality (no single Godhead), its impermanence, its danger (yes), and ultimately for its sheer other-than-humanness (Griffin, 1980/2000).

A profound darkness, in short, lies at the heart of the very metaphor of “darkness” itself. This is not, however, the end of the matter—rather, it is a reminder that the edge at which we now stand is an especially difficult one. Taken rightly, it is not an impassable blockage, but more like an intriguing philosophical and pedagogical challenge. How, all the same, might we edge out farther in the face of, or around the corners of, such fears? How might we begin to work *this* dark edge?

Animate Affinities

Despite our fears and the disparagement and dangers, I suspect that most environmentalists have also experienced a sense of “something more deeply interfused” in the natural world: a vast, deep, ancient, intricate, and just possibly animate presence. At any rate I hope so! Personally I have felt it mostly strongly at the awakening of the Earth at dawn in the desert: the fast-shifting clouds, the countless purposeful insects, the lilting birds, the last full exhale of the soils’ pores before the coming heat of the day, the quizzical but poised rocks—together these make up the mind of the place, as Abram (1996) aptly puts it.

Moreover, such Minds do respond. Actually, Thunder *has* spoken to me—at any rate I and my students have certainly “participated” in some remarkably thunderous “emerging events.” Owls, philosophy’s time-honoured other-than-human avatar, regularly make their presences known. Daddy Longlegs (Harvestmen), my own, always find their ways to me as I do to them (that is how I know).

All of this lends itself to productive pedagogical ventures as well. I would like to offer once again a certain edgy teaching practice of my own, again risking dismissal from some quarters, but at least establishing, I hope, that there are ways to invite students into a more open-ended approach to other-than-human beings. Specifically, I ask my students to consider the animals, or places, or forces of nature, with which they identify and whose power or presence they feel they may share in some way. Many pick specific animals: Cat or Dog, Dragonfly, Elephant, Stringray, Deer. A runner may be Cheetah. Some pick favourite places, places that speak to them, like Beach, or specific beaches. Some are waves, there is the occasional tree, sometimes Wind or Rain or Lightning or Sun.

Actually, I tell the students, don’t think that you are doing all the choosing. It is at least as true that other beings/powers choose *us*. Are there animals that regularly come to you, in dreams or awake? What animals? Perhaps you have even had specific encounters, numinous or electrifying, that stay with you? Are there days when all the world seems alive to you and you are “in your element”? What is that element?

Affinity-seeking in this way is of course an ancient practice. I myself have until very recently put it in terms of totemism (Weston, 2014), but an impassioned and difficult dialogue at the Loon Lake Gathering persuaded me that it is inappropriate to invoke an indigenous aura in this way for a practice that might (might) be quite superficial, just barely open to the solicitations of companion beings and undertaken with little or no awareness of the sustained totemic practices of indigenous peoples. On the other hand, I am just as persuaded that all of us can and should make a project of attending to and building upon affinities with other creatures or powers of the land, in all of the appropriate and sustainable ways that we can, learning as much as we can, with the utmost respect, from those traditions that have practised such things from time out of mind, but not supposing that they somehow must license any such project now or that theirs is somehow the only or best way.

For here is the thing: superficial as it often may be, there is immense potential in opening this door even a crack. I have found repeatedly that the beings with whom my students declare affinities show up in unprecedented numbers and in striking ways—across our paths, on the Web, in our dreams. I had not seen rabbits for years on campus until one of my freshmen chose Rabbit one Spring: within days you could not turn around without seeing rabbits everywhere. Another in the same class was Shark (partly on account of a diving encounter, face to face): now, class over, I am still sending him links to shark films that won't stop turning up on my listservs. Yet another was Dragonfly, and what followed was the summer of, yes, dragonflies.

Of course, once again, it may be said—as it immediately was said, by one of this journal's reviewers—that these experiences testify only to the power of suggestion. We notice what we are prompted to look for: “rabbits and dragonflies were probably just there all along.” It is true: suggestion is powerful—but this cuts both ways. We also find it difficult to recognize what we are *not* looking for and whose very possibility we have been taught to disparage and fear, especially if an embodied receptivity on our parts is a condition of it showing up in the first place (Cheney & Weston, 1999). I am more interested in the rather striking allegation that those other-than-human beings “were just there all along.” With Abram (1996, Chapter 1), I would insist, for one thing, that there is already a magic in *that*. I also would respond that it cannot be so readily asserted, *a priori*, that a certain kind of attention and welcome on our parts could not have actual consequences in the world. Who says? In my view this kind of pedagogy is also a kind of experiment—to find out.

Usually my classes invoke our other-than-human affinities outside, around a fire if possible—Fire being a presence too of course—or in some other ceremonial space. Last Fire Circle my co-teacher, better able to observe than me in my owl mask, wrote a striking note afterwards:

I actually had an eerie sense that [students'] faces and postures took on something of their animal (or plant or elemental) alter-egos when they began to speak about their connections to their [affinities]. . . . Bear had a growl in his voice I hadn't noticed before. . . . cat seemed calmly twitchy like cats are, ready to spring or lounge at the drop of a hat. . . . The way Otter moved her hands as she talked reminded me of the way otters play with objects in the water, turning them over and over. . . . Cloud was always glancing up, maybe taking all this lightly, as if from above. . . . Shark's teeth glinted, especially when she said she “always follows the blood!” Oh, and of course there was kindly but stern owl, who was so owl-awkward trying to look at his poem with one eye, and then the other. . . . I could list more. . . . (Frances Bottenberg, personal communication, 2013)

Once an entire class was stunned into silence by the sudden appearance of a student's affinity creature—in our case it was a Great Blue Heron—at the exact moment that that student was about to lead us into a difficult and stirring discussion (Weston, 2014). This too could be coincidental, of course, however

improbable (it was the *exact* moment). But why *must* it be? It is possible, at least, that at times like these we are instead vouchsafed glimpses of something primal, a communicative flow vastly more powerful than language itself, deep and almost inexpressible receptivities and harmonies in nature, unaccountable by current understandings even if we do not insist on the usual reductive materialism—but real for all that. Suppose that it is not merely Martian meteorites that may yet hold unaccountable surprises, but creatures who have been right next to us from time out of mind?

Conclusion

Let us remember that environmentalism and environmental education, as we know them today, are not somehow given and fixed features of the world, but are products of their times and specific historical and cultural circumstances, and thus are thoroughly in flux—on edge themselves, really. Environmental Studies programs themselves did not even exist a generation ago: what will they be in another generation? Not so far in the future, if I am right, such programs might include astronomers—for how long can a thorough-going embrace of nature keep stiff-arming the entire rest of the universe? And recognizing the Old Ways have not been somehow superseded but, more accurately, just destroyed, along with wide swaths of the animate world that sustained them and that they sustained, what entitles us to suppose that the most to which environmentalism can now aspire is environmental “literacy”? What *about* that initiate turning into a jaguar? What emerging wider and wilder events might we now learn to dance along with—maybe with whole new dances? We need to get edgier, my friends—both philosophically and pedagogically.

Notes

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Notes on Contributor

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