



Earth, Air, Water... Ethics

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canoe hovers over a fifteen-foot-deep hole in the middle of Little Sand Lake, Sawyer County, northern Wisconsin.

A map of the area reveals a landscape utterly dominated by a maze of blue blotches and lines: lakes and rivers and streams. This cerulean world is woven together and encircled by masses of smudged blue/green/white that the mapmaker designates as "marsh" or "swamp"—lakes on their way out, shallow and dispersed rivers and creeks on their way in. In contrast, green and white areas of field and forest netted with red lines of concrete and gravel offer a somewhat uninteresting background, a place to sleep, a way home.

From within the canoe, a red-wiggler-tipped fishing line extends from the pole in the fisher's hand, a hand browned by sun, chapped by wind, a hand clearly marked by rivers of bluish veins, veins full of oxygen-rich blood, blood kept warm through the night by clean burning oak, oak split by those same hands, blood itself constituted mostly of water, water of the same lake. The nylon fishing line cuts through the space between pole and lake surface, plunges almost imperceptibly into the lake, dives straight down twelve feet through light brown water, and hangs suspended three feet above the 80% sand, 20% detritus lake floor. The fisher focuses, then refocuses, attention, and waits for the sudden tug of a water-wallowing largemouth bass; a bass that was last night's dream fodder and perhaps tonight's source of internal warmth and satisfaction.

Above the fisher is a seemingly endless blue sky marked by the slight haze of a retreating front. A crook-necked, feet-dangling great blue heron passes overhead, coming from and going to the edge of its own blue blotch in search of its own fish fare. Shore minnows pop just out of the lake, suspend in atmosphere a split second, then tinkle back into the lake—the tinkle the only perceptible evidence of the drama. Common loons engage in a flurry of activity by the shore's edge: some diving for antsy shore minnows, some flying between fisher and blue heron, some sitting still and low in the water, some sitting higher and splashing frantically.

Thinking Like a Watershed

The differences in the composition of the substances in the above scene are differences in degree only. Lake water is oxygenated, lake floor is wet, blood is part lake water, lung is filled with sky, sky is full of fire from the sun, water-saturated body owes its warmth to the mixture of internal combustion and air temperature, atmosphere holds water but other more corporeal particles. Birds currently in air will be birds on lake surface then birds diving for minnows then birds on lake surface then in air again now brimming with lake substance. From sky and ground and inlet, water passes in and out of the lake. From sky and well and faucet, water inun-

dates the fisher's body. The fisher is conduit between lake and sky, water and land, animal and vegetable, self and other.

This gradated context, this "environment," is certainly and sensibly perceivable as a mixture of merely greater or lesser percentages of earth, air, fire and water—components of the ancient Greek periodic table of elements. In fact, one might well suggest that it is unperceivable any other way. Such an envisioning of the landscape takes little imagination and seems somewhat obvious given only a cursory understanding of elemental earth-parts and a slight alteration of perception and increase in attention.

While the ability to sense a context in such a manner is not impossible, it is perhaps somewhat unusual. We tend either to neglect certain parts of the picture and the myriad relationships that exist between those parts, or to relegate those parts and relationships to, at best, supporting and secondary roles. Likewise—and maybe as a reflection of this conceptualization—our notions of environmental- or land-ethics also neglect or relegate these components at times.

This is no coincidence. If we engage in discussions of environmental ethics at all, we tend to include only those components of the landscape that we metaphysically recognize, and to ignore those components that we fail to so discern. As a parallel, we have *always* maintained ethical systems of human rights. However, we have *not* always included all *Homo sapiens* within the purview of our moral communities, not because our ethical systems did not include all humans, but because we did not perceive of all *Homo sapiens* as fully human—as members of our human community. To the extent that we do not, therefore, conceptualize certain parts of the world as components of our land community, we do not then include them ethically.

It might be suggested that, while we focus on land (terra firma) and those things in and on the land, we tend to either ignore or devalue such things as oceans, inland surface water and groundwater, and perhaps even the atmosphere within our sphere of environmental ethics. Of course we have laws governing air and water pollution, access to the ocean's resources, and impacts on inland waterways. And of course we sometimes recognize the connection between all the elements in the landscape. One might argue, however, that such legal regulations and occasional recognition are not properly or necessarily reflective *of* an ethic of oceans, inland surface water and groundwater, or the atmosphere but merely an extension of more immediate terrestrial interests.

While, of course, any appropriate ethical inclusion may and should address immediate and long-term prudence and expedience, few would argue that an appropriate sense of *ethical* inclusion can be limited to prudence and expedience. We would not mistake, as an analogy, the kind and gentle treatment of slaves for a truly human rights ethics. A full sense of the ethical inclusivity of the nonhuman—here, water and atmosphere—would not simply refer to the instru-

mental value of the nonhuman, but would ask questions about right, good, and proper conduct with reference to the nonhuman.

To this extent, it might also be suggested that we lack, but desperately need, an ocean ethic, a water ethic, or an atmosphere ethic, to go along with or balance out our currently one-sided land ethic.

If this claim of neglect has merit, then it is fair to ask how such neglect occurred, how it continues to exist, and how it can be remedied.

Possible Reasons for Neglect

Perhaps the problem involves the way we talk about the environment, with the way we divvy it up both conceptually and politically. For example, conservation in America, it is sometimes suggested, is a matter of properly managing both our private and public lands. But our very totalizing framework (both private and public) may not be so totalizing after all. Rivers flow through and atmosphere mixes over both the public and the private. The same concepts of public versus private ownership do not apply so smoothly to lakes, oceans, groundwater, or the atmosphere. But if we do downgrade certain areas from our conceptual and, hence, from our ethical frameworks, why do we do it?

Is it merely an etymological problem? The historical origins of the words we use to describe our more inclusive ethic ("land" or "environment") both display preference for terra firma. In the Oxford Dictionary of English Etymology, "land" is even portrayed in opposition to water and air. "Land" is the "solid portion of the earth's surface; ground, soil." This bias is reflected as well in the notion of a "landscape" or a "picture representing natural *inland* scenery." Hence, a "land ethic" is, etymologically speaking, an ethic of the earth's solid inland surface.

Of course, etymology is not deterministic. The human mind is dynamic, able to enlarge and enrich, even transcend, the boundaries that etymology imposes upon it. Therefore, while such a verbal dissection certainly helps us understand and explain the exclusion of ocean and atmosphere from our concept of "land," and hence from a "land ethic" traditionally, it certainly does not justify it. One might well argue that the concept of land suggested in our etymology reflects a pre-ecological image of nature as readily compartmentalized and unintegrated; an image that is no longer legitimate.

The word "environment" is perhaps more broad and forgiving. "Environment" comes from the root word "environ," which refers merely to that which "surrounds" or "encompasses" you. So, an "environmental ethic" *could* well encompass water and atmosphere. However, if our vision of that which surrounds or encompasses us does not include water and atmosphere, then we will fail to include them in our vision of an "environmental ethic" as well, again irrespective of an etymological education. Arguably there is little hope to be found in merely insisting on "environmental" instead of "land ethic." And given that definitions of words do not determine, but rather reflect, usage, there appears to be reason to believe that our problem is not merely etymological, but more fundamentally conceptual and philosophical.

This tension between an exclusive and an inclusive sense of land or environment is even glimpsed in the ways in which Aldo Leopold, a person whom many refer to as the father of ecology and whom we most certainly do not think of as possessing an environmentally myopic vision, refers to land. On the one hand he employed hydrologic metaphor to explain ecology in such essays as "Round River" and "Song of the Gavilan" and recognized that "Waters, like soil, are part of the energy circuit" (Leopold 1966, 255). When he famously defined "conservation" as "a state of harmony between men and land," he was clear that "By land is meant all of the things on, over, and in the earth" (Leopold 1966, 189). And, when referring to that which ought to be encompassed by a "land ethic" he points out that "a land ethic simply enlarges the bound-aries of the community to include soils, waters, plants, and animals, or collectively: the land" (Leopold 1966, 239).

At times Leopold himself, however, expresses a slightly more conventional understanding of "land," not necessarily ignoring water and atmosphere, but not drawing attention to them either. Consider his description of a "land pyramid":

Plants absorb energy from the sun. This energy flows through a circuit called the biota, which may be represented by a pyramid consisting of layers. The bottom layer is the soil. A plant layer rests on the soil, an insect layer on the plants, a bird and rodent layer on the insects, and so on up through various animal groups to the apex layer, which consists of the larger carnivores. . . . Land, then, is not merely soil; it is a fountain of energy flowing through a circuit of soils, plants, and animals. (Leopold 1966, 252-253)

Is it perhaps that we are so completely of the land? That is, is it because we are thoroughly terrestrial critters; that we are born, live, and are buried in the land? Is it that our familiarity and experience with those "other" places is only in passing? We only temporarily exist in or on water; we only briefly, and completely sheathed, move through atmosphere. Is it that atmosphere and ocean are just forbidding and foreign enough that they fail to evoke a sense of place or a sense of home necessary for ethical prompting?

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This might partly explain our neglect. However, our various senses of identity as well as our aesthetic sensibilities wholly and completely include those things as much as, or even more than, they do the hard dry ground. Montana is Big Sky Country; flying cranes and a boat sailing on the water grace the license plate of my truck alongside forest and barn; Denver is unfortunately as famous for its brown cloud as for anything else; countless writers and painters have been inspired by the world's oceans. These things are not simply superficial parts of our world. They are and have been thoroughly ingrained within all cultures in many relevant ways.

Do the Earth's bodies of water and its atmosphere perhaps lack the necessary solidity required to make them metaphysically tangible and hence real—real enough to merit moral standing of some sort? Is it perhaps that we perceive the fluidity of rivers, the vast and mysterious aspect of oceans with their massive gyres, or the seemingly unending limits of the atmosphere as bespeaking too much scale or variability to count? Or is it that this scale and variability convince us that those things can absorb untold, even unlimited, amounts of human impact without any harm? Is it that we can so readily dissipate our impact, our waste, our effluents, that they become out of sight, out of mind, and hence out of the realm of ethical inclusion?

Such a view certainly represents our own failing. As nature philosopher and writer Kathleen Dean Moore has noted, while contemplating a hiking trail blocked by a house-sized rock broken off from a cliff above:

The rock was proof, if any proof was needed, that solidity is only a function of time. A river revealed in a flash of lightning is as thick and quivering as gelatin. And yet, measured against a millennium, a mountain melts down the sides of the valley and pours into the sea. (Moore 1995, 45)

Along a slightly different line, West German space shuttle pilot Ulf Merbold once reflected thus on his view of Earth from space:

For the first time in my life, I saw the horizon as a curved line. It was accentuated by a thin seam of dark and light blue—our atmosphere. Obviously, this was not the "ocean" of air I had been told it was so many times in my life. I was terrified by its fragile appearance. (Lyman 1990, 143)

So, we might be mistaken or stunted in our view about the reality of such parts of our world. However, since we have maintained this perception, and coupled it with a thoroughly anthropocentric valuation and ethical approach to nature, it is probably little wonder that we now

neglect these things ethically. Since ontology precedes ethics—since something's ethical consideration hinges upon the extent of its very existence—we may fail to account for waters and atmosphere ethically because we fail to account for them metaphysically. If necessity is indeed the mother of invention, one may suggest that we have not been as inclusive of ocean, inland groundwaters and surface waters, and the atmosphere because we have not felt a necessity to do so for one reason or another. Possibly, then, this lacking is more a matter of misguided or blatantly mistaken assumptions about the nature of ocean and atmosphere than it is some sort of moral failing.

Not all that far back in our intellectual history, however, water and air occupied the most central ontological rolls imaginable. In 585 B.C., the Greek scientist/philosopher Thales of Miletus announced that the ultimate stuff of the universe, that which all else could be reduced to, was *Water*. (Meletus was a seaside city, as were many of the city/states of ancient Greece where these early thinkers lived. I have always wondered if someone like Thales would have been so quick to suggest the underlying reality of water if he had lived in the mountains or desert.)

For Thales, water was most obvious not only in its abundance, but also in its transformations: rivers turn into deltas, water into ice, ice into water and then steam, which he eventually believed became air which formed wind, wind which fans fire, causing it to grow larger. Even more, however, in its eternality and its ability to cause change or motion, water was divine. Hence, all things were full of the divine to a greater or lesser extent, and the oceans almost completely divine. (It amazes me to think that a boy growing up in ancient Greece could view fish in a river or in the ocean as things that swam in a milieu of the divine, while as a boy I viewed the carp in the industrial river flowing through my hometown as wallowing in what amounted to an open sewer.) The oceans, inland rivers and lakes, ponds, streams, even subsurface water occupy not only a central place in our historical ontology, but also a spiritual position that would make them *a priori* central in our ethics as well.

Anaximenes was a student of a student of Thales. Anaximenes suggested that it was not water, but in fact *Air* that was the ultimate stuff of the universe. For him, all was either more or less diffused or rarefied air, or more or less condensed or felted air. Air, as we experience it, is merely the middle stage between all other forms. As air becomes rarefied, thinned or spread out, it becomes steam, then smoke, then fire, then sky, and then the heavens. As air becomes condensed or thickened, it becomes mist, then water, then mud, then dirt, then stone, then earth.

In short, it is possible to glimpse a decidedly different focus in our own intellectual history, a focus not so closely linked with terra firma alone, but one more inclusive of, even focused upon, elements linked with ocean, inland waters, and atmosphere. These views were eventually supplanted by the atomic theory of nature from Leucippus and Democritus—a view that in due course became dominant, a view that concluded that ultimately all is composed of little tiny solid particles, themselves indivisible (or atoms). One might suggest, then, that for the Greeks—and for us via the Greeks—the totality is simply a collection of little tiny pieces of land. Water and atmosphere become reduced merely to little pieces of land themselves, or defined out of existence altogether since they do not fit neatly into the totalizing atomistic ontological schema. Possibly it is this bias that finds its way into our modern mindset, supplanting the less tangible views of Thales and Anaximenes, relegating water and atmosphere to ancillary roles, defining reality and hence ethics in such a way that does not allow for their inclusion.

I suspect, however, that ultimately, for one reason or another, our failure to account for water and atmosphere has to do with a lack of a holistic vision and an inability to see the continuity between land and sky, lake, river, ocean, and even our own circulatory system. We compartmentalize and bifurcate the world to understand it. Nature has become taxonomy, the whole (if there is any whole) nothing more than the sum of its parts, parts that themselves can be reduced to yet smaller parts, and so on. The parts, and hence the whole, purely material, purely mechanical, purely quantitative, purely reducible, and purely superficially related. If we can compartmentalize, we can readily relegate status and value. If we cannot compartmentalize, then lines, both lines of existence and lines of ethical inclusiveness, cannot be so easily or readily drawn.

But, in the root of our problem may also lie the source of our salvation.

If I am at all correct, then there is hope to be found. That hope lies in our ability to foster an ecological and holistic vision of nature: a vision where we scoff at such compartmentalization as not only naïve and uninformed, but even dangerous and unethical.

So, how do we remedy this dearth of ocean, inland groundwaters and surface waters, and atmosphere in our ethics? We have become adept at identifying our shortcomings, and we have more recently begun to envision an appropriate future, but we still lack when it comes to getting there from here.

Possible Remediation

Two paths for remediation seem immediately obvious.

First, we could strive to create a distinct ethic of the oceans, one of the atmosphere, and even one of inland groundwater and surface water. In other words, the call for an "ocean ethic," or an "atmospheric ethic," or "water ethic" might be seen as a pursuit quite apart from discussions of an environmental or land ethic. While this option might seem attractive and appropriate to those who feel slighted by typical talk of environmental and land ethics, there appear to be some very serious drawbacks to this tactic. For one, such an approach might be somewhat self-contradictory. If the reason that oceans, atmosphere, and inland waters have been disregarded or inappropriately downplayed in our current environmental ethical proposals has something to do with an unecological compartmentalization of nature, the environment, or land, then we would apparently run the risk of perpetuating this compartmentalization with an attempt to operate a water ethic along-side a land ethic, or an atmospheric ethic alongside an environmental ethic.

Such an approach, if indeed it reinforced an atomistic image of nature, may not only be woefully unecological, but as such may then also perpetuate the very mentality that caused our environmental problems, while at the same time rejecting the way of thinking that may lie at the heart of overcoming them. Moreover, such an approach at remediation also seems unnecessary. Our problem is not a problem of ethical *intention*, nor is it a problem of disrespect per se; it is a problem of understanding and attention, a problem of ecological vision: the assumption being that if the vision changes, the ethic will change in kind.

A second option may be preferable. We might insist on doggedly and continuously reinvigorating our notions of land and environment, and hence that to which we believe an "environmental" or "land" ethic applies. We may forcefully rehearse our fundamental lessons in ecology and our history of ecological thought (a history highly inclusive of those popularly neglected environmental components) and remind ourselves again and again that any sensible and complete environmental discourse, and hence any sensible and complete ethical schema, must include the Earth's various forms of water and the earth's atmosphere, and the indwelling creatures, as well as terra firma and the on-dwelling creatures.

When I say "land" or "environment" I mean land in its various forms and mixes of earth, air, and water; and when I evoke a "land" or "environmental ethic" I am evoking the direct moral standing of the land or the environment in this inclusive sense. This approach, then, does not strive to create a series of new ethics, but merely insists that our conceptualization of "land" or "environment" be properly expanded to include ocean, inland waters, and the earth's atmosphere. This methodology has the advantage of refusing to allow nature to be cataloged inappropriately and demonstrating the holism that might help ground a new ecological vision. If such compartmentalization underpins our current environmental woes, this approach serves to simultaneously avoid and remedy this affliction.

But can we conceptually retool, or is it too late? Of course we can. We did it before. We went from a focus on water and air, to atoms, to mechanisms, and now perhaps back again. Human history is a story not only of a richness or diversity of worldviews but of dynamism within each of those worldviews, worldviews that are no more static than the human mind or nature itself. Rachel Carson recognized that one could most certainly change her or his perceptions about the sea. Replacing the typically terrestrial notion of "dust unto dust" with a more nautical vision, she wrote,

In its mysterious past [the sea] encompasses all the dim origins of life and receives in the end, after, it may be, many transmutations, the dead husks of that same life. For all at last returns to the sea—to Oceanus, the ocean river, like the ever-flowing stream of time, the beginning and the end. (Carson 1951, 216)

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Little Sand Lake, one year later, is covered with a rotting sheet of ice—the remnant of winter's grip, now loosening on the North Country. Ghostly footprints still vaguely mark the fisher's winter route onto the now disintegrating steely blue surface, footprints fading fast into the distant haze of the evaporating lake and the lake shore trees teetering on an explosion of expression. The impermanence, the simplicity, the purity, and the magic of this transitional season strangely appear like some flashy billboard screaming out for recognition. At this calm and reflective moment in time an expansive sense of the land seems palpable. At this moment only a fool could fail to recognize the existence of a moral mandate. *****

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