

Introduction: Compass Points in Environmental Philosophy

ENVIRONMENTAL PHILOSOPHY AND MAINSTREAM ACADEMIC PHILOSOPHY

During the decade that has elapsed since the publication of *In Defense of the Land Ethic*, environmental philosophy has developed explosively. I have no hard data to prove it, but the anecdotal evidence I collect, as President of the International Society for Environmental Ethics, suggests that a majority of colleges and universities in the United States, Canada, and Australia offer a course in environmental ethics (though in some cases it may not be taught in the philosophy department). So does the market evidence. An instructor has more than a dozen textbooks in environmental philosophy from which to select. And I can say from personal experience that the scholarly literature in the field has become so voluminous that it is impossible for even a full-time devotee, such as I, to read it all.

Nevertheless, environmental philosophy remains something of a pariah in the mainstream academic philosophical community. The environmental turn taken in other traditional disciplines, such as history and literature, is not so reviled. Consider the difference in professional status between the leading environmental philosophers and the leading environmental historians. Donald Worster, dean of environmental historians,

is Hall Distinguished Professor of History at the University of Kansas and oversees a number of doctoral students. Holmes Rolston III, dean of environmental philosophers, fills no endowed chair and toils at Colorado's second-tier university, Colorado State, which offers only a master's degree in philosophy. William Cronon, the heir apparent for the deanship in the field of environmental history, is Frederick Jackson Turner Professor of History, Geography, and Environmental Studies at the University of Wisconsin-Madison, a world-renowned research institution; and, like Worster, Cronon supervises more than his share of doctoral candidates. And J. Donald Hughes, President of the American Society for Environmental History, is John Evans Professor of History at the University of Denver. Until recently, I was a plain, no-name philosophy professor at the University of Wisconsin-Stevens Point, a self-styled "undergraduate teaching institution" offering no advanced degrees, and I am now employed in another brand-X position by the University of North Texas—which can plausibly claim, while offering only a master's degree, to have the best graduate program in environmental philosophy in the United States. Eugene C. Hargrove, now chair of the UNT Department of Philosophy and Religion Studies, first received tenure at another university, but only after an international letter-writing campaign resulted in an appeals committee override of the philosophy department's decision to let him go. The letters, written by indignant and outraged scholars from a wide variety of disciplines all over the world, pointed out that Hargrove was the most distinguished member of his department, having virtually established the field of environmental philosophy by founding and editing *Environmental Ethics*, the journal. Of course, his mainstream colleagues attempted to deny him tenure, not despite that fact, but because of it. The outcast estate of environmental philosophy used to be something of a mystery to me, but I think I now understand the reasons for it.

For one thing, environmental philosophy has been relegated to the "applied ethics" barrio. Hence, it is snubbed by the mandarins of academic philosophy who regard themselves to be advancing the "pure" stuff. There is an irony in this ghettoization. Environmental philosophy has, for the most part, been pressing the envelope of theory, especially ethical theory. Applied ethics, on the other hand, as the name suggests, applies the standard ethical theories—that hail ultimately from the Olympians of the Western tradition, such as Aristotle, Hobbes, Locke, Kant, and

Bentham, and that have been refined by their twentieth-century custodians, such as MacIntyre, Rawls, Nozick, Harman, and Hare—to novel moral problems created by Modern technology. But, because the whole of the Western tradition of moral philosophy has been resolutely (and often militantly) anthropocentric, environmental philosophers have been largely preoccupied with the more fundamental intellectual business of devising new, more nature-oriented and environment-friendly ethical theories than with the pedestrian work of applying off-the-rack ethical theories to moral problems in the environmental arena.

However, looked at from another angle, environmental philosophy is properly regarded as a species of applied philosophy. For contemporary environmental philosophers are attempting to apply the traditional *methods* of philosophy, conceptual criticism and invention, if not the traditional ethical theories, to a well-defined spectrum of actual problems—biological impoverishment, ecological and environmental degradation, and so on—that we human beings collectively face. Mainstream academic philosophers who do realize what is actually going on in environmental philosophy—theoretical reflection provoked by the twentieth century's environmental crisis—seem to become, nevertheless, even more antagonistic; for two reasons, I think. First, twentieth-century philosophers, fearing the hegemony of the sciences, attempted to transform philosophy into one compartmentalized academic discipline among others, with its own unique set of special problems, its own private turf. And theoretical environmental philosophy steps beyond the self-imposed disciplinary bounds of mainstream academic philosophy. Second, staunchly to maintain the ideological status quo in service of the imperium is a central role of the academic powers that be. In part, this is effected in mainstream academic philosophy by a diversionary tactic: focusing the considerable critical faculties of philosophy on specialized arcane intellectual puzzles, such as the referential relationship between words and objects, and away from common and pressing real-world problems—the solving of which might necessitate profound social, economic, and political change. (The highest compliment that a mainstream academic philosopher can win today from his or her peers is to be called “clever”—not wise, not profound, not insightful, not far-seeing, but, merely, clever. That's quite revealing, I think.) And theoretical environmental philosophy is revolutionary; it challenges the most cherished assumptions of the venerable Modern Western philosophical

tradition, upon which rest, in turn, the prevailing social, economic, and political institutions.

The intellectual revolutionaries of earlier periods in philosophy have, of course, now become pillars of the tradition. But in their own day, they too were the outcasts, the upstarts, the dangerous boat-rockers, shunned by the scholastic establishment, denied professorships at the better places, marginalized, sometimes even martyred. So, I feel very encouraged, though often personally aggrieved, by the indifference on the part of most, and the outright hostility on the part of some, mainstream academic philosophers shown to us environmental philosophers and to our work.

The history of Western philosophy is conventionally ordered by centuries. In the ancient period, the sixth, fifth, and fourth centuries B.C.E., for example, each had its own distinctive philosophical concerns and style, as had the seventeenth, eighteenth, and nineteenth centuries, respectively, in the Modern period. Twentieth-century philosophy was marked by an effort, on the part of its practitioners, to make philosophy over into a rigorous, narrow, science-like discipline. In the Anglo-American philosophical community, the result was analytic philosophy; in the Continental philosophical community, the result was phenomenology. With the advent of the twenty-first century, not only a new century, but a new millennium will have arrived. And, in the twenty-first century, analytic philosophy and phenomenology will have become curiosities of intellectual history discarded by future philosophers with the same bemused contempt as was nineteenth-century absolute idealism by early twentieth-century philosophers, such as Moore and Russell, or as was Medieval scholasticism by early Modern philosophers, such as Descartes and Hobbes. Husserl and Davidson will be about as influential in the twenty-first century as Fichte and Bradley were in the twentieth. Future historians of philosophy will doubtless regard analytic philosophy and phenomenology as aberrations, born of physics envy, in a tradition of expansive, transdisciplinary speculative and critical thought going back more than 2,500 years.

What will succeed analytic philosophy and phenomenology as the twenty-first century ripens? I've bet my life on the belief that environmental philosophy will be regarded by future historians as the bellwether of a twenty-first-century intellectual effort to think through the philosophical implications of the profound paradigm shifts that occurred in the sciences during the twentieth century. Hasn't philosophy of science, a

twentieth-century innovation, been doing just that all along, you may be thinking? Not really. Philosophy of science has been a mainstay of twentieth-century academic philosophy to be sure, but, for the most part, twentieth-century philosophy of science was devoted to an analysis of the scientific method and the formal logico-mathematical relationships between scientific hypotheses and their experimental verification or falsification. When profound paradigm shifts were noted and studied by philosophers of science, attention was focused on the etiology of the shift, not its broader metaphysical and moral implications. Speculative ontological questions, for example, about the nature of physical reality in the light of the special and general theories of relativity and quantum theory did not head the research agenda of twentieth-century philosophy of science. But speculative ontological questions about the nature of terrestrial nature in the light of ecology have been at the forefront of inquiry in environmental philosophy, as have moral questions about the relationship of human beings to nature in the light of the theory of evolution.

In this regard, note that, in the 2,500-year-old Western philosophical tradition, changes in moral philosophy follow upon and adjust to changes in natural philosophy. The first philosophers in the tradition, the pre-Socratics, raised questions about the composition of the physical world and its principles of order and movement. Their success in persuasively answering such questions contributed to an ethical and political crisis in ancient Greek society—which crisis stimulated a shift in intellectual attention from natural to moral philosophy. And the first ancient Greek attempt to understand the origin and nature of justice, the social contract theory of ethics, was modelled on the atomic paradigm in natural philosophy. (Solitary, egoistic individual human beings in the “state of nature” are, in effect, social atoms, chaotically colliding with one another. And social contracts are supposed to order and coordinate their movements, reducing collisions to some tolerable minimum.) Socrates (who seems not to have been a social contract theorist) and his contemporary moral philosophers, the sophists (who were), lived and worked a century or so after Anaximenes and Heraclitus. Moral philosophy did not mature until the mid-fourth century in the work of Plato, Aristotle, and their contemporaries, a century or so after the zenith of Greek natural philosophy in the mid-fifth century. After the recovery of Greek natural philosophy in the European Renaissance and its further development in the course of

the scientific revolution of the sixteenth century, a similar response of moral philosophy was led in the seventeenth century by Descartes, in epistemology, and by Hobbes and Locke, in ethics. Thus it appears that the lag time between fundamental changes in natural philosophy—that is, in what today we call the scientific worldview—and subsequent changes of equal profundity in moral philosophy is about a century. The twentieth-century revolution in natural philosophy—led by Planck, Einstein, Heisenberg, Bohr, and others in physics, and by Clements, Elton, Tansley, Haldane, and others in biology—if history is a reliable guide, will be followed by a parallel revolution in moral philosophy. The environmental philosophy of the last quarter of the twentieth century is, I submit, the harbinger of things to come.

PRACTICING ENVIRONMENTAL PHILOSOPHY

The essays in the first section of this volume provide a more sustained discussion of the relationship of environmental philosophy to the larger discipline of which it still remains a small, professionally despised, and peripheral part, and to the contemporary environmental crisis that provoked it. The first, “Environmental Philosophy *Is* Environmental Activism: The Most Radical and Effective Kind,” attempts to defend environmental philosophy as I have pursued it, not against attacks by my reactionary mainstream colleagues, who would like to nip it in the bud, but against attacks by environmental “antiphilosophers,” as I call them, who seem to think that theoretical environmental philosophy is not radical enough. It was written for a small conference of scholars, organized by Don E. Marietta and Lester Embree, on environmental philosophy and environmental activism, held in the spring of 1993 at a pleasant oceanside resort in South Florida. The second, “How Environmental Ethical Theory Can Be Put into Practice,” argues that unlike other ethics, environmental ethics requires more social and political than personal commitment to be effective. I speculate on how new worldviews seep into the collective consciousness of a culture such as ours and begin to shape its values and eventually to inform its changing policies and laws. It was written for an international interdisciplinary conference, open to the public, organized by Frederick Ferré and others, held at the University of Georgia in the

spring of 1992. The third, “Holistic Environmental Ethics and the Problem of Ecofascism,” takes up a perennial problem for “ecocentric” environmental ethics. I try to locate the Leopold land ethic, the leading example of a holistic environmental ethic, in the history of Western moral philosophy, and indicate why it has not been better understood and given a more sympathetic hearing by Modern moral philosophers. In brief and in sum, I trace the philosophical pedigree of the Leopold land ethic first to Darwin’s evolutionary account of the origin and development of the “social instincts” and “the moral sense” in *The Descent of Man*, which evidently directly informed Leopold’s thinking, and then to the sentimental communitarianism of Adam Smith and David Hume, which evidently directly informed Darwin’s thinking. And I dispel the pseudoproblem of ecofascism that has bedeviled holistic environmental ethics for more than fifteen years—at last, hopefully, once and for all. This chapter has not been presented or published elsewhere.

REVISITING THE LAND ETHIC

Aldo Leopold is routinely called a prophet—for two reasons. First, he studied the Bible, not as an act of faith, but for a model of literary style. As a result, his writing has a sort of biblical compulsion to it. Second, he thought far ahead of his time; he anticipated intellectual things to come. He was an environmental philosopher, before environmental philosophy came on the scene. He was an amateur twenty-first century philosopher, exploring the moral implications of the biological sciences, living in the twentieth century—and only during the first half of it, at that. Many of the essays on environmental philosophy in *In Defense of the Land Ethic* attempt to explore the submerged part of an intellectual iceberg, only the tip of which is visible in Aldo Leopold’s *A Sand County Almanac*. There I also deal with obvious theoretical problems confronting the land ethic, such as why we human beings may have moral obligations to nature while to suppose that nature might have moral obligations to us is patently absurd. As it seems to me, the most obvious theoretical problem facing the land ethic is how, in view of the divorce between facts and values decreed in twentieth-century academic philosophy, science can inform ethics, more especially how the theory of evolution and ecology can inform the land ethic.

I touched on that problem in *In Defense of the Land Ethic*; here I return to it in “Just the Facts, Ma’am,” an essay written for a theme issue of the *Environmental Professional* on environmental ethics, published in 1987. In addition to a more thorough theoretical treatment, I illustrate the interplay between our human rational faculties and moral sentiments with a case study: Leopold’s well-known reversal of attitude toward predators—such as the gray wolf, the brown bear, and the mountain lion—from one of fear and loathing to one of affection and concern.

My essays in the earlier SUNY Press collection did not, however, anticipate and obviate all the theoretical problems to which the land ethic is heir. Kristin Shrader-Frechette and Warwick Fox both argue that the land ethic, as I have interpreted it, lacks “normative force.” I may be able satisfactorily to explain, that is, how someone like Leopold, who acquires an evolutionary and ecological worldview, might come to love and respect predators after contemning and persecuting them, but I cannot, with the conceptual resources of the land ethic alone, demonstrate that anyone (Leopold included) ought, morally ought, to love and respect predators. Or so argue Shrader-Frechette and Fox, quite independently of one another. Here, in “Can a Theory of Moral Sentiments Support a Genuinely Normative Environmental Ethic?” I wrestle with this problem. The essay was written as the Invited Address to the sixty-fifth annual meeting of the Pacific Division of the American Philosophical Association in the spring of 1991. (The Pacific has long been the most progressive of the three divisions of the APA. Further evidence that environmental philosophy is garnering at least a little bit of professional respect is that an environmental philosopher was asked to give, not an, but *the* invited address to the division meetings that year. I should also add, in the same vein, that between the writing of this introduction and its publication Kristin Shrader-Frechette, my successor as president of the International Society for Environmental Ethics, has become Alfred C. DeCrane Professor of Philosophy and Concurrent Professor of Biology at Notre Dame University.)

In my opinion, the biggest problems for the land ethic arise not from its philosophical, but from its scientific foundations. *Sand County’s* “The Land Ethic” was put together at almost the midpoint of the twentieth century. Then the ecosystem concept was in ascendancy in ecology. It represented living nature to be an integrated set of structures in dynamic equilibrium, maintained in such an equilibrium by negative feedback pro-

cesses, such as predator-prey relationships, similar to that of a thermostat. But virtually all the models and metaphors in ecology up until then assumed, in one way or another, that to be in a state of equilibrium was nature's normal condition. In F. E. Clements's superorganism model in early twentieth-century ecology, for example, one "association" of organisms succeeded another until a mature climax association was attained. Then the climax reproduced itself in perpetuity until the successional series leading up to the climax was restarted by some external (often anthropogenic) disturbance. In Charles Elton's community model, widely current in ecology by the 1920s, the magnitude of potentially explosive species populations composing biotic communities remained constant or fluctuated around some mean, each species population held in "balance," in respect to the others, by various invisible hands, such as competition and predation. Sometime around 1975, the equilibrium or balance-of-nature worldview in ecology gave way to one in which nature is constantly changing, often chaotically, and in which violent disturbance is a normal and healthy, not an abnormal and pathological, occurrence. Further, after Leopold composed "The Land Ethic," evolutionary accounts of the origin and development of ethics more sophisticated than Darwin's own have also been advanced. In "Do Deconstructive Ecology and Sociology Undermine the Leopold Land Ethic?," I document and confront these and similar challenges to the scientific foundations of the land ethic. I answer "No" to the title's question, but argue that late twentieth-century developments in the ecological and evolutionary sciences may necessitate revising the precepts of the land ethic.

HOW MANY EARTH AND OTHER ETHICS DO WE WANT?

In 1989, I was drawn into a debate about moral pluralism by another invitation to present a paper at the annual meeting of the APA-Pacific—this time as one of the critics in an increasingly popular "author-meets-critics" session celebrating the publication of *Earth and Other Ethics* by Christopher D. Stone. Stone advanced a position that he styled "moral pluralism," a position that I found to be philosophically untenable. My critique, "The Case Against Moral Pluralism," was eventually published in *Environmental Ethics*, the journal. It provoked a firestorm of protest.

Pluralism is politically correct. How could I or any other well-meaning, magnanimous, progressive person be against it? I endorse personnel pluralism in the academy and in the bureaucracy, and pluralism in sexual orientation, why do I not endorse pluralism in ethics? My case against moral pluralism is directed toward the very specific form of it recommended by Stone, not moral pluralism under any and every possible interpretation of the term. I do not think that we should adopt one *theory* of ethics to guide action in *this* type of moral quandary, another to guide action in *that* very different sort of moral quandary, a third moral *theory* to guide action in still *another* equally different kind of moral quandary, and so on, as Stone suggests. Why? In short, because moral theories are embedded in moral philosophies, most of which are mutually inconsistent. Hence, moral pluralism, as Stone advocates it, implies intrapersonal inconsistency and self-contradiction.

If by “moral pluralism” you mean the right of different moral agents to select the moral theory and associated moral philosophy most persuasive to each, severally, certainly I have nothing against that. On the other hand, I think that the very nature of moral philosophy requires that we assume a commitment on the part of all moral agents to *reasoned* persuasion. To adopt a moral theory arbitrarily or because it is self-serving is contrary to a commitment to reasoned persuasion. Hence, if I am persuaded by the land ethic—and as modified along the lines I just sketched, I am—I assume that, after sufficient discussion between us, you will be too. Or, after sufficient discussion, you will convince me to adopt the theory that you find most persuasive. This, of course, is an ideal. No discussion is ever sufficient. New and unexpected considerations are always emerging. So the adoption of any moral theory, as of any scientific theory, is always provisional and open to modification or wholesale replacement. And, because universal agreement is an ideal, at any given time there are going to be a number of viable candidates in mutual contention for best moral theory. That’s what I call “interpersonal moral pluralism,” and it is a very good and healthy thing. In this good and healthy climate of interpersonal moral pluralism, each moral philosopher has not only a right but a duty to argue that his or her preferred moral theory is superior to all the others—that is, that it uniquely takes account of all the relevant considerations and does so self-consistently. By the same token, if each moral philosopher expects everyone else to be persuaded by reasoned argument that

his or her preferred moral theory is superior to all the others, then he or she also has a duty to be genuinely open to persuasion by the reasoned arguments of others. I have been criticized for changing my mind. I consider changing my mind not to be a philosophical weakness or vice—as if philosophy consisted in staking out a position, digging in one’s heels, refusing to budge, and shamelessly concocting any and every sophistry to fend off criticism—but evidence of my commitment to reasoned persuasion. How can I expect everyone else to be open to persuasion by my arguments, if I am unwilling to be open to persuasion by theirs? And what better way to prove that one is open to persuasion by someone else’s arguments than occasionally to be persuaded by them?

In academic ethics, “moral pluralism” often refers to the view that an agent might appropriately employ a multiplicity of moral *principles* to guide action in various, different moral quandaries. I do object to such a pluralism of principles *if* one’s principles are grounded in inconsistent moral philosophies, as I just explained. Again, for example, if one adopted the utilitarian “greatest happiness” principle to guide one’s actions in one quandary and then adopted the Kantian “universalization” principle to guide one’s actions in another moral quandary, one would be committing oneself to the mutually inconsistent and contradictory ethical theories and moral philosophies that ground and justify these principles. But one might, quite properly, in my opinion, adopt a single moral philosophy, say Plato’s, and subscribe, within that moral philosophy, to a plurality of principles: say, Be just; Be temperate; Be courageous; Be wise; Be pious; and Be generous. Having a single moral philosophy in which these several principles are grounded and by means of which they are justified, unifies them theoretically. And if they should come into conflict in practice or application, one can compare each with the others in the commensurable terms of the common and self-consistent moral philosophy in which they are located. One can thus adjudicate between them, or “prioritize,” as we now sometimes say, among them. Suppose, to continue with the Platonic-virtue-ethics example, that I am a college student and that my moral quandary is, Should I or should I not attempt to drink a quart of whisky at one gulp on the dare of my fraternity brothers? We are all enrolled in a course in classical Greek philosophy, being campus “Greeks” ourselves, in the expectation of learning something about how the ancient inventors of Greek-letter organizations initiated their pledges and what and how much

they drank when they partied down with their “little sisters.” Not to try to chug it, my frat brothers argue, would be cowardly, and thus contrary to the Platonic principle Be courageous. To try, I reply, would be intemperate, and unwise as well, given the toxicity of alcohol, and its potential, in such quantity, to kill me. Moreover, it might involve impiety, if not toward the gods (Dionysus might approve, while Apollo might not—we were just assigned the *Euthyphro*, and I read it) then “filial” impiety, as my professor called it, toward my parents, who certainly would not want me to try to do such a foolish thing. If they should explore Plato’s moral philosophy more deeply, I go on to point out, my frat brothers might discover that he views courage as a species of wisdom, the knowledge of what to fear and what not to fear. And the taunts of one’s peers, I argue triumphantly, is not something to fear—or at least such taunting should be feared less than abject drunkenness and possible suicide. All things considered, the virtuous thing to do is to demur.

At first, I understood the Leopold land ethic to posit a single moral principle, comparable in this regard, not to the Platonic ethic, but to the more familiar Christian, utilitarian, and Kantian ethics, each of which endorse one and only one master moral principle. The Golden Rule is the monistic principle of the Christian ethic; the greatest happiness principle is the monistic principle of the utilitarian ethic; and the categorical imperative is the monistic principle of the Kantian ethic. The golden rule of the land ethic is, “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community; it is wrong when it tends otherwise.” Raised in a predominantly Christian culture and schooled in Modern consequentialist and deontological ethics, I naively just assumed moral monism at the level of principle. And so at first I argued that the land ethic required us to assess the rightness or wrongness of *all* our actions to the extent that they conform to this principle, just as the Christian, utilitarian, and Kantian ethics assess the rightness or wrongness of all our actions to the extent that they conform to the Golden Rule proper, the greatest happiness principle, or the categorical imperative, respectively. My critics gleefully pointed out that actually guiding all our actions by the summary moral maxim of the land ethic would entail monstrous, homicidal consequences. Here, by the way, my commitment to interpersonal pluralism and openness to persuasion may be demonstrated. I was persuaded that my critics were right: Guiding *all* our actions by the golden

rule of the land ethic would indeed entail monstrous, homicidal consequences. And, then and there, I would have abandoned the land ethic, had it not occurred to me that I had been wrong to interpret it as positing a single moral principle as do the Christian, utilitarian, and Kantian ethics. Leopold characterizes the land ethic, I noted, as an “accretion,” that is, an addition to our familiar human-to-human ethics; it is not intended to replace or eclipse our familiar human-to-human ethics. But if the summary moral maxim of the land ethic is a new principle to be added to others, we can only do so consistently, that is, without self-contradiction, if we can locate it within an ethical theory and moral philosophy that accommodates a plurality of principles, human, humane, and environmental. As noted, the Christian, utilitarian, and Kantian moral philosophies each accommodate only a single master principle—the Golden Rule, the greatest happiness principle, and the categorical imperative, respectively. But the Platonic moral philosophy coherently accommodates a plurality or multiplicity of principles—the justice principle, the temperance principle, and so on—or, more precisely put, a plurality or multiplicity of cardinal virtues. I find a moral philosophy that will accommodate a plurality or multiplicity of ethical principles—or, more precisely, a multiplicity of duties and obligations—including the summary moral maxim of the Leopold land ethic (as modified to take into account recent developments in ecology), in the sentimental communitarianism first advocated by David Hume and Adam Smith and later biologized by Charles Darwin. And, in the final analysis, I claim that the golden rule of the Leopold land ethic (as modified to take into account recent developments in ecology) is but one of a multiplicity of community-generated duties and obligations, unified by sentimental communitarianism. It is generated by our membership in the biotic community. But our many other community memberships—in families, municipalities, nation-states, the global human village—generate many other duties and obligations than the land ethical duty to disturb the biotic community only at normal spatial and temporal scales (which is how I suggest that the summary moral maxim of the land ethic might be modified to take into account recent developments in ecology).

My defense of the land ethic against the charge that it entails a hideous “environmental fascism” opens it to the charge that it is a “paper tiger.” It has no bite. Just how do we prioritize when our land ethical

duties and obligations conflict with our familial, municipal, national, and humanitarian duties and obligations? I suggested that the duties and obligations associated with our more venerable and intimate community memberships are the more primitive and urgent. Thus, if one has severely limited resources, one should share them with family members, not distribute them indiscriminately to total strangers. By the same token, I have stronger obligations to my fellow human beings and to the human community than to my fellow creatures and to the biotic community. But in that case, it would seem that our environmental ethics would always be eclipsed by our human ethics. And they would be, rightly so I think, if all our duties and obligations were of equal strength. But they are not. Many of our environmental problems could be ameliorated if we sacrificed not the necessities of human life, which we have a strong duty to provide ourselves and others, but some of the more excessive and extravagant luxuries of human lifestyles. We have a much stronger obligation to save endangered species from extinction, for instance, than we have to raise the Dow Jones Industrial Average by a percentage point or two. In "Moral Monism in Environmental Ethics Defended" (written in 1993 for presentation at the ninety-first annual meeting of the APA-Central Division, and originally published in the *Journal of Philosophical Research*), I clarify just what sort of moral pluralism I find philosophically untenable. And I take up the paper-tiger problem alleged to bedevil the land ethic and indicate how the land ethic might help guide us in resolving the notorious timber-industry-versus-spotted-owls conflict in the Pacific Northwest.

ANOTHER CONTROVERSIAL TOPIC

Though environmental philosopher Bryan Norton wishes it were not so, the intrinsic-value-in-nature question has been, and remains, the central and most persistent cluster of problems in theoretical environmental philosophy. Two special issues of general philosophy journals—the *Monist*, volume 75, number 2 (1992) and the *Electronic Journal of Analytic Philosophy*, volume 3, number 3 (1995)—were devoted to that topic; I guest-edited the former and contributed to the latter. Anthropocentrists, such as Norton and Hargrove, refuse to attribute intrinsic value to nature, and reserve it only for human beings, both those presently living and future

generations. That is why, indeed, they are called anthropocentrists. Non-anthropocentrists, such as practically everyone else of note in the field, all agree that nature has intrinsic value, but we disagree profoundly on the extent to which it can be found (or ought to be distributed) in nature and on its ontological status. As to its distribution in nature, some claim that only individual organisms can be properly said to possess intrinsic value (or inherent worth, as it is sometimes called). Others, I among them, argue that superorganismic wholes—species, biotic communities, ecosystems, the whole biosphere—are intrinsically valuable. As to ontological status, some nonanthropocentrists claim that intrinsic value exists objectively—no less objectively than, say, backbones or wings—as a fact of nature. Others, I among them, claim that intrinsic value is subjectively conferred—that is, that if there existed no valuing subjects, nothing would be of value, intrinsic or otherwise.

The first of the three papers in this volume on intrinsic value in nature was presented at the 1989 meeting of the American Society for Environmental History at Evergreen State College in Olympia, Washington, on the shores of Puget Sound. In retrospect, that meeting represents an intellectual watershed. At it, Donald Worster debuted his essay, “The Ecology of Order and Chaos,” in which he summarized and documented, for the community of environmental humanists, the ethically untoward and disturbing shift in ecology from the mid-century “balance of nature paradigm” to the fin-de-siècle “flux of nature paradigm” (as the principal proponent of the latter, Stewart Pickett, styles them)—the ecology of order and the ecology of chaos, respectively, of Worster’s title. It was Worster’s paper that first convinced me that, to remain viable, the Leopold land ethic must be revised in light of this recent paradigm shift in ecology.

For some time, at any rate, I had been playfully thinking about a third interpretation of the environmental implications of Genesis, to which Lynn White Jr. had called attention in his notorious “Historical Roots of Our Ecologic Crisis,” published in *Science* in 1967. (Scrutinizing that paper a quarter-century later, it appears to have, more generally, set out an agenda for a future environmental philosophy and inspired us, the founders of the field, to get moving on it.) White had sketched the mastery interpretation which Judeo-Christian apologists had immediately countered with the stewardship interpretation. The more I thought about it, the more convinced I became that an environmental ethic far more radical

than the Judeo-Christian stewardship environmental ethic, or even than the Leopold land ethic, could be teased out of the biblical worldview. Then I noticed that in *A Thousand Mile Walk to the Gulf*, John Muir had adumbrated just such a radical Judeo-Christian citizenship environmental ethic as I had been mulling over. "Genesis and John Muir" amalgamates my ruminations on Genesis with Muir's. It is included in this section on intrinsic value because, as it seems to me, Genesis clearly imputes intrinsic value to nature, and does so in the clearest and most direct way imaginable—by divine fiat.

The second of the three papers in this volume on intrinsic value in nature, "Rolston on Intrinsic Value: A Deconstruction," was also occasioned by an invitation to serve as a critic at another APA-Pacific author-meets-critics session. For this one, the author was Holmes Rolston III; the book was *Environmental Ethics*; and the year was also 1989. Rolston is a staunch advocate of objective intrinsic value in nature. I hold a less doctrinaire, more relative opinion. I think that intrinsic value in nature cannot exist objectively *within the constraints of the Modern worldview*, the general parameters of which were set out by Descartes in the seventeenth century. A cornerstone of the Modern worldview is the divorce, decreed by Descartes himself, between the *res extensa* and the *res cogitans*, between the objective physical and the subjective psychological domains. Corollary to this divorce is the one decreed between objective primary and subjective secondary qualities, first by Galileo Galilei and later affirmed (and so named) by John Locke, and the one decreed by David Hume between objective facts and subjective values. In the Modern worldview, values are, as it were, subjectively conferred tertiary qualities of objects. In *Environmental Ethics*, the book (and elsewhere), Rolston challenges the Humean distinction, arguing that intrinsic value actually exists in nature, while expressly affirming the Galilean-Lockean distinction between primary and secondary qualities and nowhere challenging the more fundamental distinction from which the other two are derived, the Cartesian distinction between purely psychological subjects and purely physical objects. Hence, his case for objective intrinsic value in nature fails to convince.

To mount a convincing case for objective intrinsic value in nature, one must go beyond the Modern worldview. In *In Defense of the Land Ethic*, I suggested that a postModern worldview useful for solving environmental philosophy's intrinsic-value-in-nature problems might be constructed

from the conceptual resources provided by quantum theory in the New Physics. For in the worldview of the New Physics, the Cartesian distinction between the *res extensa* and *res cogitans* is blurred. Corollary to this postModern remarriage of subjects and objects, I also there argued that all properties of objects—their primary quantitative properties, their secondary sensory properties, and their tertiary valuative properties—had the same ontological status. All were “virtual” (or potential) properties of objects that are actualized only by interaction with physical subjects. Short of some such foundational project as this, hard as we try to conjure it, intrinsic value cannot be shown to exist objectively in nature.

But short of some such foundational project as constructing a post-Cartesian worldview from the conceptual resources of the New Physics, we can get by just fine, in environmental ethics, with a normatively equivalent theory of subjectively conferred intrinsic value in nature. Normatively, intrinsic value serves as a foil for instrumental value. When something is valued instrumentally, it is valued by some valuing subject as a means only. On the other hand, if something has intrinsic value, it is also an end-in-itself. The normative function of finding objective intrinsic value in nature is to transform nature (or some elements or aspects of it) from the status of a mere means to the status of an end-in-itself. We can, however, preserve the distinction between means and ends without challenging the Cartesian cleft between the *res extensa* and the *res cogitans*. For we psychological Cartesian subjects (assuming that that’s what we are) are perfectly capable of valuing entities other than ourselves intrinsically—that is, for their own sakes, as ends in themselves—as well as instrumentally.

In “Intrinsic Value in Nature: A Metaethical Analysis” (originally published in the *Electronic Journal of Analytic Philosophy*) I try to prove, against Norton, that intrinsic value “exists,” in the sense that most everyone values him- or herself intrinsically, and that the concept of intrinsic value has a powerful function in ethics. An intrinsically valuable end cannot be appropriated as a mere means, without overwhelming justification for doing so. As things stand, only the instrumental value of nature is widely recognized. To prevent the destructive exploitation of nature, environmentalists are, thus, compelled to show that the instrumental value of nature left alone and whole (its ecological services, its potential for recreation and for aesthetic gratification) outweighs its instrumental value as fodder for the industrial maw. Now suppose that the intrinsic value of

nature (or some elements or aspects of it) were to become as widely recognized as is the intrinsic value of human beings. Then the burden of proof would shift from those who would protect nature to those who would exploit it as only a means. Intrinsically valued people are often called “human resources” and millions of us human resources are exploited every day by our employers. Though we employees are acknowledged to be ends-in-ourselves, we are also means to our employers’ ends. Hence in those societies that intrinsically value human life, ethical constraints—hour maximums, wage minimums, workplace safety standards—are institutionalized to mitigate the exploitation of human beings. If nature were intrinsically valued, it could, ethically, still be exploited, but similar constraints would apply.

Wide recognition of the intrinsic value of nature, as we see, would work in the environmental arena similar to the way in which wide recognition of human rights works in the political arena. Few philosophers who study human rights ascribe to a metaethical theory of natural rights—a theory that asserts that human rights are something objective which human beings may coherently be said to possess in the same straightforward sense in which we may coherently be said to possess shoes or teeth or even thoughts. A metaethical theory of the ontological status of human rights which denies that they are anything objective, however, does not undermine—nor is such a theory intended to undermine—the considerable normative efficacy of human rights. Similarly, a Modern metaethical theory of the ontological status of the intrinsic value of nature, such as mine, which denies that the intrinsic value of nature is objective, and asserts instead that it is subjectively conferred by valuing subjects, would in no way compromise—nor is it intended to compromise—the considerable impact on environmental policy and law that a wide recognition of the intrinsic value of nature would make.

Conflating, I suppose, metaethical and normative discourse, moral philosophers going all the way back to Kant have, nevertheless, tried, within the constraints of the Modern worldview, to convincingly claim that some limited set of entities—rational human beings and interested organisms, are the two candidate sets that I examine in “Intrinsic Value in Nature: A Metaethical Analysis”—possess objective intrinsic value. None, including Kant, succeed, in my opinion. However, in the course of his most recent

attempt, *Conserving Natural Value*, Rolston, I suggest, gradually and inadvertently transcends the Modern worldview by first systematically democratizing, then deconstructing and decentering the Cartesian psychological subject. Rolston thus hints at a postModern theory of intrinsic value that is very different from the reconstructive one, distilled from the New Physics, that I offer. He, rather, points toward a poststructuralist approach, the viability of which can only be judged if and when it is more fully and deliberately developed.

BAROMETERS OF CHANGE

Signs are everywhere that the Modern worldview is decaying and that its hold on the Western mind and institutions is weakening. In my opinion, the most irresistible force undermining the very foundations of Modernism is the shift from print to electronic information media. The shift from orally transmitting and mnemonically storing information to storing and transmitting information by means of writing was accompanied by a profound transformation of human consciousness—from the mythopoeic mind to the rational mind and from the communal self to the individual self. Print completed and perfected the changes initiated by writing. Modernity is the legacy of a more or less universal literacy, made possible by print. But now, we educators lament, no one reads anymore. People watch TV instead or, more recently, surf the net. And information is stored and retrieved electronically. What equally profound transformation of human consciousness will that create?

A deconstructed and decentered self? Maybe the fragmented, rapidly shifting images on MTV are, it is feared, an objective correlative of the postModern mind—a shattered, post-rational self that is nowhere and everywhere at once, a far cry from the focused, rational, synoptic Modern ego, so ably characterized by Descartes. There is a more hopeful possibility than this, however. The political balkanization of the planet, the bickering domestic politics of difference (“identity politics,” as it is sometimes called) in pluralistic societies such as the United States of America, the empty consumerism of this *fin de millennium* may not be the end point of the sea changes in progress, but the transitional phase. To what? Perhaps

to an ecological or, more generally, a systems worldview and to a gradual reification of such a worldview in the material of social, political, and economic organization.

Two universals in human experience are eating and getting sick. Irrespective of one's cultural identity, everyone must eat and everyone is liable to get sick. Though the necessity of getting food and the possibility of getting sick are human universals transcending the myriad cultural differences between us, the means of obtaining something to eat and of warding off and curing illness are deeply embedded in and understood in terms of the many and various cultural worldviews. In *In Defense of the Land Ethic*, I characterize some aspects of the traditional woodland American Indian representation of their means of getting food (and getting sick) by hunting and gathering. Game animals and forage plants were believed to be persons who would voluntarily give themselves up to needy and worthy hunters and gatherers. Success in obtaining food was, therefore, believed to depend less on developing capture skills with such technologies as the bow and arrow and more on developing a proper relationship with the other-than-human persons in the hunters' and gatherers' greater-than-human community. Illness, similarly, was explained as retaliation for some social offense against a mystically empowered human or other-than-human person. If, for instance, a hunter were to take more game than needed or fail respectfully to dispose of an animal's inedible remains, either the animal's spirit or its spiritual warden could and would cause the errant hunter to fall ill. Curing illness involved restoring the afflicted person's good relationship with his or her neighbors—human or other-than-human, as the case may be—often diagnosed and mediated by a shaman.

Eating and getting sick are not only universal in human experience, they are vital and fundamental. How we go about getting food and warding off and curing sickness reveal, therefore, perhaps more reliably than any profession of faith or statement of philosophy, our foundational beliefs, our worldview. In "The Metaphysical Transition in Farming: From the Newtonian-Mechanical to the Eltonian-Ecological" (originally published in the *Journal of Agricultural Ethics*) and in "Environmental Wellness" (originally published in *Literature and Medicine*), I argue that Modern agriculture and medicine are clear manifestations, indeed manneristic manifestations, of the mechanical worldview. But mechanical (or "industrial") agriculture and "conventional" (or mechanico-chemical) medicine