



land, value, community
callicott and environmental philosophy

edited by
wayne ouderkirk and jim hill

Land, Value, Community

SUNY series in Environmental Philosophy and Ethics
J. Baird Callicott and John van Buren, editors

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Introduction: Callicott and Environmental Philosophy

WAYNE OUDERKIRK

Over the last twenty-five years, environmental philosophy has exploded into a vigorous and important area of research and writing. At first a form of applied ethics, it has rapidly become a matrix of ethical, metaphysical, epistemological, social, and political speculation, with an array of special problems or issues, several major theoretical models or paradigms, and the other fundamentals—journals, conferences, graduate programs—that mark a philosophically significant area of study.¹ This vigor is partial testimony to its importance because the creation of an environmentally benign, beneficial worldview, which would include a defensible and practicable environmental ethic, is clearly a major necessity resulting from our continuing and deepening environmental crisis.

J. Baird Callicott has been, and continues to be, one of the central figures in the development of environmental philosophy. To say that he has helped set the terms of the discussion, that he has developed one of the central theoretical models in the field, the land ethic, and that his work has provoked reactions and reflections that have both clarified other models and opened new avenues for continued work is no exaggeration.

This book examines environmental philosophy by analyzing Callicott's views critically. There are several reasons for this approach. First, one cannot discuss the field without considering Callicott's views. And the reverse is also true: If one wants to examine Callicott's views, there is no escaping a discussion of the larger field. He is that important a figure. Third, because he has been such a force, his theory warrants extended examination and analysis. Finally, by presenting his critics' evaluations of his theories, their own preferred ideas for future work, along with Callicott's response to those ideas, we can get a partial picture of some of the next important developments in the field. Not that there is here a crystal ball, but certainly that potent mixture—Callicott and his critics—will be at the center of whatever environmental philosophy becomes in its next twenty-five years.

Thus, this book represents one snapshot of a significant, lively, evolving field. As such, it cannot and does not pretend to cover every possible idea or theory. Still, by examining the strands of Callicott's theory and what he has tried to do with it, it covers a great deal. The sections of this collection fall rather naturally into place in accordance with key facets of Callicott's work. Within each section, other thinkers (philosophers, ecologists, political scientists, and scholars of religion) evaluate some aspect of that facet of Callicott's thought. In addition, most also explain their own ideas for resolving the problems they see for his position, thereby contributing new ideas to the continuing debate. So the book is about their thinking as well.

Of the seventeen essays that follow, all but six—those of Partridge, Donner, Norton, Light, Wenz, and the essay by Hester, McPherson, Booth, and Cheney—are published here for the first time; and all but one of the eleven original essays were written for this volume. The current version of the multi-author essay was written first, and for this collection, although a later version was published before this one.

Each of our authors explains those parts of Callicott's theory that are important for her or his own analysis, but as context for what follows we need a fuller depiction of Callicott's theory. For a complete exposition, the reader should study Callicott's writings. However, here we will explain his main ideas and relate them to the essays that follow.²

THE LAND ETHIC AND ITS FOUNDATIONS

Our world faces myriad anthropogenic environmental problems. Even a partial list reminds us of their complexity and scope: global warming, the rapid elimination of tropical rain forests and with them countless species of flora and fauna, the conversion of what little wilderness remains on the planet into farmlands, and the conversion of farmlands into cities, roads, and shopping malls. One response to such problems is that we humans should change the behaviors that lead to them because, unless we do, we are harming ourselves or future generations of humans. As appealing as such a response might be, many, including Callicott, have thought it at best incomplete and at worst an invitation to continue along our present course as long as we engage in some technological tinkering that many believe will put things aright.

The missing element in this human-centered response to environmental problems, of course, is the environment itself. Although previously not a subject of direct moral concern, omitting it from our present and future ethical deliberations seems both arrogant and a blatant continuation of our past mis-

behavior. But the question then becomes whether and how to justify a moral concern for the environment, especially in light of the traditional Western restriction of morality to interhuman relations.

In 1948, Aldo Leopold proposed the land ethic as a response to this question, and Callicott has earned his own place in the discussion by explaining, analyzing, and defending the core ideas of that ethic. Its basic moral injunction is Leopold's famous, oft-quoted maxim: "A thing is right when it tends to preserve the stability, integrity, and beauty of the biotic community. It is wrong when it tends otherwise."³

But why should we accept this new moral injunction? Callicott's response is that an accurate (i.e., a scientifically informed) picture of morality shows not only that we can but also that we should accept it. The requisite scientific perspective is primarily threefold, joining evolutionary biology, ecology, and Copernican astronomy, although Callicott frequently adds his interpretation of contemporary physics. The philosophical basis for this new perspective on ethics Callicott derives from the moral theories of David Hume and Adam Smith.

The science, although not totally uncontroversial, as we shall see, is fairly straightforwardly stated: Darwinian evolution shows that we humans have become what we are, not through divine fiat, but through the same evolutionary processes that produced all the millions of other life forms on this planet. That relates us in multiple, intimate ways to the rest of nature. Ecology shows us that all those life forms are integrated into an interactive, mutual interdependence. That interdependence is part of who and what we humans are, delineating more clearly the kind of linkage we have with this world, namely, community membership. Astronomy shows us that Earth is home, that the fates of all who live here are joined inseparably on one small planet.

This bundle of scientific ideas needs a link to justify a transition from it to a moral injunction, and Callicott finds that link in the Hume-Smith tradition of moral sentiment, fortified by Darwin's account of the evolution of morality. Unlike most Western ethicists, who place reason at the center of morality, Hume and Smith instead argue that it is sentiments—emotions, feelings, both positive and negative—that provide us with our morality.⁴ Importantly, those feelings, according to Hume, include an affection not only for other individuals but also for social groups or communities as a whole. Callicott convincingly argues that Darwin both knew of and used Hume's moral psychology in his account of how ethics, or altruistic behavior, could have evolved. Darwin's explanation is that those of our hominid ancestors to whom natural selection had given stronger emotional ties to their social

groups developed, due to those ties, cooperative behavior. Thus their offspring were naturally selected in the evolutionary process because members of a cohesive group had a higher likelihood of surviving than individuals struggling alone.⁵

So the evolutionary description of the origins of ethics confirms the Hume-Smith theory of ethics. Recall that evolution and ecology also show us that we are part of a community that includes the rest of nature, which is not a simple collection of separate components but an integrated whole, a biotic community. Such community membership can stimulate our evolved sentiments toward perceived communal ties. Our environmental obligations arise from our emotional ties to that community, which is every bit as much our own as is our immediate family.

Callicott concludes: "Therefore, an environmental or land ethic is both possible—the biopsychological and cognitive conditions are in place—and necessary, since human beings collectively have acquired the power to destroy the integrity, diversity, and stability of the environing and supporting economy of nature."⁶ In broad outline, this is Callicott's general justification, in his phrase, the foundation, of his environmental ethic. It appears throughout his work, even in recent writings where he is developing a postmodern environmental ethic.⁷ More precisely, in such contexts he argues that through its use of evolutionary and ecological theory, Leopold's land ethic "opens out" on a postmodern perspective. So even there two of the main parts of his justification remain, and the others are not left far behind.

Few would dispute the general evolutionary account of our connections with the rest of nature, and the specific account of the development of ethics clearly makes sense within that Darwinian perspective. Nevertheless, Callicott's justification has problems. In the broadest terms, the metaphor of a foundation for the land ethic seems ill chosen when the same metaphor has proven problematic in other philosophic contexts and especially because foundationalism is one of the cornerstones of modernism, which Callicott rejects.⁸

More specifically, in part I, Ernest Partridge examines Hume's account of the moral sentiments and concludes that it is not an adequate basis for an environmental ethic because Hume's specifically moral sentiments originate in interpersonal relations and are attitudes toward persons. So Hume's theory would actually reinforce anthropocentrism, not a Leopoldian ecocentrism. As a counterproposal, Partridge offers as the basis for a nonanthropocentric environmental ethic "biophilic" natural sentiments, that is, positive, nonmoral emotional responses to nature, which he and others argue are part of our genetic constitution.

Smith, says John Barkdull in his essay, has a different theory of moral sen-

timent from that of Hume. The most relevant difference for environmental ethics is that morality, according to Smith, arises from and within close social interaction and is individually based. It thus lacks a sentiment toward society at large and so cannot fund obligations toward the community. Moreover, Barkdull argues that Smith's theory can probably not support obligations toward nonhumans because for him the general opinion gives moral principles much of their force. Because no general consensus exists on the moral standing of nonhuman nature, Smith would not see any moral obligation toward it. On the other hand, Barkdull does see some support for Callicott in Smith's view of aesthetic inspiration to improve the workings of the community. However, as was the case with Partridge's proposal, such support is decidedly nonmoral and thus diverges significantly from Callicott's account.

Robert McIntosh, an ecologist, moves the discussion to the land ethic's alleged foundation in scientific ecology. Searching a large sample of ecological literature for settled meanings of the key concepts of ecosystem, community, integrity, and stability, he finds little in that literature helpful to Callicott. All of those concepts, he claims, have diverse meanings in ecology; and that diversity raises difficulties for any philosophical appropriation of them. In addition, ecologists and philosophers of science disagree about the nature of ecology. McIntosh concludes, "The merits of ecology as the basis of an environmental ethic are unclear if its status as a science is unclear."

Although she finds much to praise in Callicott's theory, Kristin Shrader-Frechette likewise faults his use of the scientific concept of community. She too reviews some of the relevant ecological literature and claims that "there is no *scientifically/biologically* coherent notion of 'community' robust enough to ground either contemporary community ecology or environmental ethics." Her other major objection concerns Callicott's evolutionary justification of the land ethic. Callicott avoids relativism by basing ethics in natural selection: The community sentiments are not merely my subjective feelings but are possessed by all, or most of those, who survive in the social group, due to the random workings of natural selection. The trouble with that account, says Shrader-Frechette, is that the resulting ethic has no normative dimension. Altruistic feelings and the socially beneficent actions they provoke are simply natural behaviors, not free moral choices based on normative principles. The land ethic looks purely descriptive. Instead of a biologically based theory, Shrader-Frechette prefers "a metaphysical account that posits intrinsic value in nature itself. . . ."

Two additional problems for Callicott's theory come to mind. First, if our positive, community-oriented sentiments have been naturally selected for, why does the human species not exhibit more of them than it does? Our in-

terhuman behavior exhibits at least as much aggression as it does altruism. Thus, aggression must be as basic as altruism. Whatever the social implications of that observation, it seems to show that we can never have a fully operative ecological ethical community, not simply because ideals are always impossible to achieve, but because the ideal itself runs counter to our nature, or to part of it.

Another question regarding community is this: We may and should extend our natural social sentiments to the biotic community, says Callicott, because we can see that we are part of it. Participation in the community is derived from the interdependence members of the biotic community exhibit. But *interdependence* seems too strong a word for our role in ecosystems. We are undoubtedly dependent on them, but in what way are ecosystems dependent on us? Their independence from us is not like the independence of parents from offspring who can later reciprocate love and other mutual activities that can develop into interdependency. We play no such role in any ecosystem; we seem genuinely superfluous to ecosystemic functioning. If so, however, then mutuality, a necessary constituent of community, is missing; and the call to treat the environment as community reduces to self-interest.

INTRINSIC VALUE

Although not currently as prominent a topic in environmental philosophy as it once was, the concept of intrinsic value in nature has played a major role in the field's development. Callicott made it an important part of his position and clearly still regards it as necessary for a complete environmental philosophy. In *Earth's Insights*, one of his most recent works, he reiterates his view that "the most vexing problem of contemporary secular nonanthropocentric environmental ethics . . . is the problem of providing intrinsic value . . . for nonhuman natural entities and nature as a whole." He makes clear that a "promotion" of nature "from the instrumentally to the intrinsically valuable class" is a desideratum of a valid environmental ethic.⁹ And in his introduction to the most recent collection of his essays—in which he reserves a whole section for the topic—he states: ". . . The intrinsic-value-in-nature question has been, and remains, the central and most persistent cluster of problems in theoretical environmental philosophy." He then alleges that "Nonanthropocentrists, such as practically everyone else of note in the field [besides Bryan Norton and Eugene Hargrove], agree that nature has intrinsic value. . . ."¹⁰

Intrinsic value is best understood in contrast with instrumental value (although an entity might have both). Instrumental value is the value something

has as a means to an end. Obviously, much of nonhuman nature has instrumental value for us humans, who use it, for example, as the source of raw materials from which we build our civilizations. On the other hand, intrinsic value is the value something has in and of itself, independent of any use it might have for us or other organisms. Traditionally, philosophers have placed humans and their experiences, and not much else, in the category of the intrinsically valuable. Although such value is nonmoral, those beings that have it command special respect and moral consideration. Thus, demonstrating that nonhuman nature has intrinsic value would be a potent lever for raising the rest of nature into humanity's moral field of vision. That is Callicott's strategy.

Callicott has presented different accounts of intrinsic value, modernist and postmodernist, necessitated by his belief that most environmentalists still operate within a modernist worldview but that we are developing, and must develop, a postmodern worldview.¹¹ In a modernist context, science is the exemplar of knowledge. It is objective, factual, and delineates the real structure and operations of the universe. And in that delineation, it finds no values, only facts. Values exist only on the subjective side of the split between knowing subject and known object. They thus have no independent existence of their own but are created by conscious valuers.

Although no values exist outside of conscious valuing, Callicott nevertheless maintains that we can value things for what they are in themselves, that is, intrinsically. In other words, that values originate from conscious valuers does not imply that only such valuers and their experiences are valuable. We can still value things, such as the biotic community, or endangered species, for what they are in themselves. But the fact that we can thus value nonhuman nature does not show that we ought to do so. Here Callicott invokes the land ethic's foundations. We ought to value nonhuman nature for itself, he claims, because it constitutes a community to which we belong, as ecology demonstrates, and because we experience positive feelings toward our acknowledged communities, as the Humean theory of moral sentiments shows.

Callicott acknowledges that this is not full-blown intrinsic value because it allows things to be valuable only for themselves, not in themselves. Still, he thinks it sufficient for environmental ethics not only because nothing can have any greater kind of value but also because, once acknowledged, it shifts "the burden of proof from those who would protect nature to those who would exploit it only as a means." In this vision, constraints on the treatment of intrinsically valuable nonhuman nature would develop analogous to constraints on the treatment of human workers that protect them from abuses.¹²

Explicitly acknowledging the problems of modernism and the nascent

postmodern transition phase we have entered, Callicott also develops another account of intrinsic value in nature that he sees as consistent with the intellectual forces driving that transition. Again, he singles out science for a central role in his theory, this time evolution, ecology, and contemporary physics. Evolution shows us that the modernist-Cartesian bifurcation of thinking subject–extended object is untenable, that we are part of nature. Ecology reinforces that change in ontological perspective and adds the crucial element that no organism is a rootless atom but is part of an interdependent system of life. Quantum theory supplies more metaphysical and epistemological force. Together with relativity theory, it “portray[s] a universe that is systematically integrated and internally related.” This total integration eliminates the old modernist separation between knowing subject and known object and all its associated dichotomies, including especially the fact-value distinction. In Callicott’s interpretation of the new science, all qualities are on the same ontological footing, none are objective or subjective. They are, instead, virtual, emerging on interaction between elements of the integrated universe. Thus, when we interact with the world, the qualities we “perceive” are created by that interaction. This puts values on a par with all other epistemological categories. There still is no objective intrinsic value, but “that is to concede nothing of consequence, since *no* properties in nature are strictly intrinsic. . . .”¹³

Callicott also suggests a still more radical account, conditionally interpreting the new physics as implying “that nature is one and continuous with the self.” To that he adds traditional ethical theory’s axiological acceptance of egoism as given. He reasons:

If quantum theory and ecology both imply in structurally similar ways in both the physical and organic domains of nature the continuity of self and nature, and *if* the self is intrinsically valuable, then nature is intrinsically valuable. *If* it is rational for me to act in my own self interest, and I and nature are one, then it is rational for me to act in the best interest of nature.¹⁴

In later writings,¹⁵ Callicott promotes the continuity of self and world and the identification of self-realization with Self-realization where the world is my self writ large; but in those later contexts he does not explicitly mention intrinsic value. However, because one such presentation is part of a book section on intrinsic value, I conclude that he would still connect Self-realization with intrinsic value.

Not surprisingly, these accounts of intrinsic value have provoked strong reactions from other thinkers. In her essay, Wendy Donner criticizes Callicott’s modernist theory of intrinsic value, arguing that given its extreme subjec-

tivism, the theory cannot “establish the conclusion that ecosystems and species are the primary bearers of value.” Rather, conscious valuers seem to be the primary carriers of value. Also, Donner claims that the theory fails to give us any general guidelines for sorting or balancing our ethical duties regarding vastly different kinds of things (individual organisms, endangered species, ecosystems), all of which it counts as intrinsically valuable. Finally, she raises the specter of inhuman and inhumane decisions based on the alleged equality of intrinsic value throughout the biotic community.

Intrinsic value in nature is as equally associated with the theories of Holmes Rolston III as it is with Callicott's.¹⁶ Rolston, in his essay, maintains his conclusion that such value is not subjective in any way, but is fully objective. Among the themes that Rolston challenges is Callicott's antidualistic naturalism. Although overcoming dualism may seem like a good idea, Rolston objects that, “Naturalizing everything naturalizes too much.” Robbed of any contrasting class of the nonnatural, we no longer can sort the natural from the nonnatural, and we want to do so in guiding human behavior toward the environment. Otherwise, destructive human actions are as natural as benign ones. Rolston describes some of what he takes as clear differences between humans and nature, which we ignore at our peril.

As for intrinsic value, Rolston finds serious problems with Callicott's theory. For one thing, Callicott seems to take back his antidualism with his value theory. In saying that only we (or conscious beings) can value, he distinguishes between us and nature. In addition, Rolston analyzes Callicott's “projection” metaphor of intrinsic value and finds a serious problem. Because all the value comes from (is projected by) the conscious valuers, no value is actually located in nature. This repeats one of Donner's criticisms, but Rolston elaborates and deepens it, locating problems and confusions in Callicott's terminology and his mislocation of value. Rolston argues for his own objective account of intrinsic value because, among other things, it is simpler, discovering values already present before we humans arrive, not requiring the added process of “projection.”

In the next essay, Bryan Norton disagrees with the whole project of finding intrinsic value in nature, faulting both Callicott and Rolston for assuming that the only credible response to the exploitation of nature is to assert its independent value. To Norton, the problem identified by Donner and Rolston—that Callicott's theory of value in nature actually finds none there—is due to the mistaken modernist epistemology. In its place, Norton proposes a pragmatist relational epistemology. Norton also rejects Callicott's postmodern accounts of intrinsic value, noting that Callicott himself recognizes that the version based on Self-realization still rests on the rejected Cartesian concept

of self. And the account in which all features of the world are “virtual” Norton sees as a rather desperate attempt to rescue as much epistemological objectivity for intrinsic value as possible. Norton recommends instead a rejection of that pursuit in favor of a “postfoundationalist” epistemology with an ethic promoting anthropocentric but noninstrumental values.

In addition to Norton’s criticisms, Clare Palmer’s comments from her essay in the next section on Callicott’s use of quantum physics are pertinent here. Palmer makes the important observation that Callicott never specifies on which of the several interpretations of quantum theory he bases his arguments. But each of those interpretations can have different, conflicting implications. Callicott, she points out, has simply chosen the one most compatible with his own ethics, rendering his view more ideological than philosophical.

METAPHYSICS AND METAETHICS

Palmer’s criticism of Callicott’s appropriation of quantum theory provides a nice entrée into a discussion of metaphysical and metaethical aspects of environmental philosophy. Such topics form an essential part of the field. One such topic came up in part I, namely, the relation between environmental ethics and scientific ecology. Callicott certainly is not the only philosopher who has seen the need to deal with metaphysical issues in connection with environmental ethics.¹⁷ Thus, his efforts and the reactions they stimulate form a significant part of an important, wider philosophical controversy. Of course, any proposed radical revisions of our ethical traditions will provoke metaethical reflections on the nature of ethics. A central metaethical issue in the recent literature has been the ethical monism-pluralism debate. Once more, Callicott has been at the center of the debate. But first the metaphysical discussion.

Metaphysics is a continuing theme in Callicott’s writings. He not only thinks that the land ethic needs a metaphysical foundation, he thinks that the new science can and will provide it. Science, he believes, has metaphysical implications that, through the elaboration of a scientific perspective into a paradigm for understanding not only the rest of nature but also human society and relations, come to permeate a culture, transforming the paradigm into a “worldview.” Thus it was with modernism, a worldview that developed from classical mechanistic physics. But the new science of the late twentieth century, claims Callicott, is rapidly undermining the modernist paradigm. Specifically, he thinks that the new physics, in which the observer and observed mutually influence one another, undermines the dualism between knower and known, that it also undermines the notion that the universe is a

mere collection of independent entities. Thus, in traditional metaphysical terminology, the self is not separate from the world it experiences; things are not separate entities accidentally related; rather, their relations are more important than they are. When we add, as we must, ecology to the emerging paradigm, we see that these related entities form a whole, a unity of some sort. Those are the metaphysical elements that Callicott sees at the core of the emerging postmodern worldview and that, as we have seen, undergird the land ethic.¹⁸

Catherine Larrère discusses Callicott's derivation of metaphysical and ethical concepts from science, comparing his thought to some French poststructuralist approaches to the emerging postmodernism. Specifically, Larrère identifies two aspects of what Callicott calls the "metaphysical implications of ecology": First, that science "enfolds" an ontology and second, that "natural philosophy is able to inform a moral philosophy." She agrees with Callicott on the first point and sees his approach as more constructive than that of some poststructuralists. But she contests Callicott's subordination of moral philosophy to natural philosophy, claiming that such a model of the relationship between the two areas is really the modernist model, that in a postmodern era we can and must grant as much authority to moral thinking (and to the humanities generally) as to science.

Going further in her criticisms than Larrère, and in addition to her comment on the interpretation of quantum theory, Clare Palmer has several questions about the metaphysical and other implications Callicott draws from science. The new, holistic, relational worldview that Callicott envisions, supported and promoted by science, might underwrite something like the land ethic. But Palmer asserts that the possibility of such a unified scientific worldview seems doubtful. Moreover, she argues that because little empirical evidence currently exists for such an emerging worldview, Callicott cannot justify his claim to a privileged place for his ethical position, which he sees as grounded in this alleged new scientific worldview. Palmer also raises serious questions about the legitimacy of moving from claims made about the quantum level to claims about the level of everyday experience. As she concludes, "[Metaphysical and ethical] positions must surely be argued in their own right, rather than relying for special support from scientific theory." Finally, she questions whether the purported new scientific worldview would, as Callicott asserts, lead directly to an environmental ethic. There seems to be no causal or logical necessity for its doing so; it might take us elsewhere.

Eugene Hargrove rejects the idea that environmental ethics needs a metaphysics in any traditional sense. Hargrove's essay is an important discussion not only of environmental philosophy, but also of the nature and function of

metaphysics generally. It focuses on Callicott's "metaphysics of morals," but its cautions about metaphysics apply as well to his speculation about the new science's implications. Environmental philosophers, says Hargrove, should stick to "descriptive" metaphysics (which simply describe how people think about the world) and avoid "revisionary" metaphysics (which attempt to develop a better way to think about the world). A particularly telling and unfortunate example of the latter, claims Hargrove, is the attempted proofs of the existence of nonanthropocentric intrinsic value in nature, which he sees as contributing to the marginalization of environmental philosophy within the environmental movement. Hargrove points out some difficulties in the Hume-Darwin-Leopold-Midgley tradition for Callicott's metaphysical views: that elements of those thinkers' views do not support the land ethic or as easily do support alternative views, such as Hargrove's own version of anthropocentrism. Admitting to a metaphysical eclecticism, Hargrove says Callicott practices it as well.

That last comment raises the issue of theoretical unity, a much-debated question lately. For a variety of theoretical reasons, and especially because environmental ethics affirms obligations to several types of entities—individuals, species, ecosystems, biotic communities—many environmental philosophers have defended the idea that we need several moral principles to explain and determine our moral duties. That is moral pluralism.

Callicott's nuanced opposition to pluralism exhibits again the development of his thought. Early on, he interpreted Leopold's principle as the single overriding ethical rule.¹⁹ So interpreted, however, it does seem to have some of the horrifying implications that Donner raises. We might, for example, be obliged to sacrifice human lives to preserve the environment. In later writings, Callicott advocates instead a version of ethics in which several principles or virtues are united in a single moral philosophy. For the latter he of course appeals to the Hume-Smith "sentimental communitarianism" that, although identifying a single basis for ethical duties (community membership), includes a "multiplicity of community-generated duties and obligations." The advantage Callicott sees in such a theoretical monism joined with a pluralism of principles is that when duties or principles conflict they can be compared and prioritized "in the commensurable terms of the common and self-consistent moral philosophy in which they are located." But Callicott remains adamantly opposed to a pluralism in which one appeals to one moral philosophy for one issue, another moral philosophy for another issue, and so on. That is because such pluralism would involve "intrapersonal inconsistency and self-contradiction."²⁰

Peter Wenz, Andrew Light, and Lori Gruen critique Callicott's theoretical monism, but for different reasons. Wenz accepts Callicott's arguments against

“extreme” pluralism, the view that we can jump from one moral philosophy to another to solve different types of moral quandaries. In contrast, any theory that does not provide a single formulaic solution to every moral question is “minimally pluralistic,” says Wenz. He disagrees with Callicott’s arguments against that variety of pluralism because no moral theory, including Callicott’s, provides single, unambiguous answers to all our moral dilemmas. Moderate pluralism remains, and Wenz both defends it and claims that Callicott’s theory is similarly pluralistic. Because Callicott has endorsed a plurality of principles within a single theory and Wenz says that his own moderate pluralism is a single theory, it looks as if they agree. But Wenz also claims that Callicott’s “many moral principles . . . are not all derived from a single, master principle.” Callicott, as we have seen, does claim that the moral principles are “unified” in communitarian sentimentalism, so the two thinkers still disagree.

Light approaches the issue from another direction. To him, the important point is not the metaethical resolution of the monism-pluralism dispute but the practical problem of gaining agreement enough among theorists to reach convergence regarding environmental practice. It is the discovery of practical solutions to environmental problems acceptable to those of different theoretical bents that is the central motivation of pluralism, he argues, not the theoretical wrangling over whether monism trumps pluralism or vice versa. So Light recommends that Callicott and others, rather than searching for a theory that combines the advantages of monism and pluralism, search instead for “compatibilism among forms of valuing” so we can find ways of cooperating on important and pressing environmental issues. Light goes on to explain how Arne Naess, the originator of deep ecology, has defended a form of pluralism that accomplishes exactly that, and does so in a manner complementary to Light’s own environmental pragmatism.²¹

In her contribution, Lori Gruen explains and emphasizes the importance of context in ecofeminist theory. She contends that Callicott, in criticizing ecofeminism as rejecting the need for theory in environmental ethics, has misunderstood ecofeminism. Although she agrees with him that ecofeminists have not sought a theoretical account of intrinsic value in nature, she contends that ecofeminism does provide a theoretical perspective, but one that focuses on the analysis and critique of “the forces that contribute to the oppression of women, animals, and nature.” Such forces can exist even within “supposedly emancipatory theories” in environmental philosophy, so the issue of context becomes crucial. In turn, that issue again raises the monism-pluralism debate. Gruen argues that ecofeminism emerged “to provide a critical, self-reflective and pluralistic alternative.” She goes on to explain that although such an alternative seeks to honor and affirm the many voices and

cultures of our world, it is not relativistic, still allowing for careful ethical assessments of others' practices.

CHALLENGING THE IMPLICATIONS OF THE LAND ETHIC

Given the ubiquity of environmental concerns and the wide-ranging implications of the land ethic for understanding the relation between humans and the rest of nature, that thinkers from a broad range of theoretical viewpoints have reacted to Callicott's writings is not surprising, all the more so because Callicott himself has discussed the land ethic in relation to sundry disciplines and cultural practices.

Perhaps the best known of Callicott's own take on the land ethic's implications is his polemical critique of animal-liberation from an ecocentric position. He completely rejected animal liberation because of its individualism and lack of concern for endangered species and ecosystems and because, he claimed, it absurdly implies a duty to prevent predation. Later, based on his reading of Mary Midgley's notion of a "mixed community" of humans and animals, Callicott moderated his views, proposing an alliance between environmentalism and animal liberation, connecting them via the concept of community membership.²² But he never altered his emphasis on concern for the biotic community or his rejection of the individualism of Peter Singer's or Tom Regan's theories of ethics regarding animals.

In contrast, Angus Taylor, seeing no conflict between ecosystemic integrity and autonomy of sentient animals, presents an alternative reading of the relation between Callicott's ethic and a strong animal-liberation position. Taylor argues that both animal rights and the land ethic oblige us to leave wild animals alone, to respect their autonomous pursuit of their own natures. Callicott goes wrong, says Taylor, in at least two ways: by insisting that we can respect domesticated animals and continue "appropriating their lives and bodies for our exclusive purposes without their consent," and by ignoring the necessary connection between the rights of animals and "the flourishing of their natural environments." Taylor calls for an alliance between animal liberation and environmentalism with autonomy and ecosystemic integrity "as joint fundamental values."

Susan Power Bratton explores Callicott's views about the relation between the land ethic and Christianity. Bratton thinks Callicott, in his search for a single environmental ethic, is actually responding to the wrong question. Rather than seeking such an ethic, Bratton argues that we instead should be trying to facilitate environmental problem solving and promoting environmental sensi-

tivity within existing moral systems. She challenges the whole project of ethical monism and of academic environmental ethics as either ignoring religious practitioners—the largest constituency of ethical study—or as insulting them, through the attempted imposition of an abstract ethic to which they are supposed to adapt. Thus, she argues, the effort to determine the effectiveness of Christian environmental ethics is not a philosophical but rather a social science question. Rejecting Callicott's criteria for an adequate environmental ethic, Bratton, based on her own empirical work, proposes seven "social benchmarks" for assessing how an ethic is expressed in a real society, which is constituted by dynamic, developing relationships. She believes such an approach will better promote beneficial environmental attitudes and behavior than will judging a religious ethic from an abstract philosophical vantage point.

Callicott has always been interested in Native American attitudes toward the environment, and in *Earth's Insights* he compares the environmental ethics of indigenous peoples throughout the world with the land ethic.²³ Consistent with his moral monism, he argues that although many indigenous environmental ethics exist, they are or can be made consonant with the land ethic, which validates them. The validation is not, he claims, an instance of Western arrogance because the land ethic is based in postmodern science, which has become a worldwide epistemological project. Lee Hester, Dennis McPherson, Annie Booth, and Jim Cheney take strong exception to Callicott's project in *Earth's Insights*. They argue that it is an attempt to subordinate indigenous people's ways of life to a distinctly Western approach to the natural world. Instead of basing ethics in metaphysics, as Callicott does, they emphasize that indigenous peoples perceive the world within an attitude of respect that concomitantly creates their worlds. So for them respect is a practical epistemology that creates an ontology. These authors' essay is simultaneously a rigorous critique of Callicott's arguments in *Earth's Insights* and a rich presentation of indigenous thought, and they suggest ways in which that thought can assist Euro-Americans to develop a similar attitude or approach separate from the domination and control characteristic of Western approaches.

Callicott vehemently opposes dualism, which he sees as separating humans from the world of which they are part. That separation, he believes, has contributed to the destruction of the nonhuman world. Based on that general view, he has argued that the concept of wilderness is dualistic in that it divides the world into the human, cultural world and the wild, natural world.²⁴ I also oppose dualism, but argue that Callicott goes too far in his critique of wilderness. Arguing that Callicott's rejection of dualism is itself determined by a

dualist outlook, I defend the notion of wilderness as designating the non-human world, the world other than us. We are indeed part of nature, but we also have our own unique features that are important in working out how we should treat the rest of nature, although they do not amount to an ontological separation.

CONCLUSION

A volume that discussed every aspect of Callicott's environmental philosophy would be much larger than this one. It would have to include sections on environmental aesthetics, environmental education, and conservation biology,²⁵ to name a few topics not covered herein, and some of the coverage in this volume would need expansion. However, the major aspects of his theories are analyzed here, and in the final essay of the collection, Callicott responds to the questions, criticisms, and problems raised in the other articles. That response is ample and complex and covers all the essays just described, so I will not attempt to summarize it here.

In his introduction to *In Defense of the Land Ethic*, Callicott says that he offered that collection of essays "not only as a defense of Leopold's seminal ethic but as an invitation to critical exploration along the trail he charted."²⁶ The collection herein accepts that invitation both by responding to his defense and development of Leopold's ethic and by exploring what has become the trail system of environmental philosophy. The editors hope that this exploration assists readers not only in navigating Callicott's extensions of Leopold's trail and those of the other thinkers included here, but also in discovering and developing new trails that help us all learn how better to live in the land.

NOTES

1. For an overview of some of the literature in environmental philosophy, see Wayne Ouderkirk, "Mindful of the Earth: A Bibliographical Essay on Environmental Philosophy," *Centennial Review* 42 (1998): 353–392. A shorter version was "Earthly Thoughts: An Essay on Environmental Philosophy," *Choice: Current Reviews for Academic Libraries*, 35 (Nov. 1997): 421–434. Interested readers can find an annually updated bibliography of the environmental philosophy literature at the Web site of the International Society for Environmental Ethics, <<http://www.cep.unt.edu/ISEE.html>>. The bibliography is also available on disk; purchase information is on the Web site.

2. The account that follows summarizes Callicott's explanation and justification of

the land ethic found in many of his essays and books. See for example, his “The Conceptual Foundations of the Land Ethic,” originally published in J. Baird Callicott, ed., *Companion to A Sand County Almanac: Interpretive and Critical Essays* (Madison: University of Wisconsin Press, 1987), republished in Callicott’s *In Defense of the Land Ethic: Essays in Environmental Philosophy* (Albany N.Y.: SUNY Press, 1989).

3. Aldo Leopold, “The Land Ethic,” in *A Sand County Almanac with Essays on Conservation from Round River* (New York: Ballantine Books, 1966), 262.

4. David Hume, *An Inquiry Concerning the Principles of Morals* ([1777]; LaSalle, Ill.: Open Court, 1966), and Adam Smith, *The Theory of the Moral Sentiments* ([1790]; Oxford: Clarendon Press, 1976).

5. Charles Darwin, *The Descent of Man and Selection in Relation to Sex*, 2d ed. (New York: J. A. Hill, 1904).

6. Callicott, *In Defense of the Land Ethic*, 83.

7. Callicott, *Earth’s Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback* (Berkeley: University of California Press, 1994), 199 ff.

8. See Bernard Williams, *Ethics and the Limits of Philosophy* (Cambridge, Mass.: Harvard University Press, 1985); Wilfrid Sellars, *Empiricism and the Philosophy of Mind* (Cambridge, Mass.: Harvard University Press, 1997); Laurence Bonjour, *The Structure of Empirical Knowledge* (Cambridge, Mass.: Harvard University Press, 1987); Richard Rorty, *Objectivity, Relativism and Truth* (Cambridge, England: Cambridge University Press, 1991).

9. Callicott, *Earth’s Insights*, 21.

10. J. B. Callicott, *Beyond the Land Ethic: More Essays in Environmental Philosophy* (Albany, N.Y.: SUNY Press, 1999), 14–15.

11. This summary follows Callicott’s expositions; for the modern version, see his “On the Intrinsic Value of Nonhuman Species”; for the postmodern versions see “Intrinsic Value, Quantum Theory, and Environmental Ethics.” Both are in Callicott, *In Defense of the Land Ethic*.

12. Callicott, *Beyond the Land Ethic*, 18.

13. Callicott, *In Defense of the Land Ethic*, 169.

14. Callicott, *In Defense of the Land Ethic*, 173.

15. Callicott, *Beyond the Land Ethic*, 217–218; Callicott, *Earth’s Insights*, 206–209.

16. See for example, his *Environmental Ethics: Duties to and Values in the Natural World* (Philadelphia, Pa.: Temple University Press, 1988).

17. For example, in defending duties toward species, Holmes Rolston first argues that they are actual entities, in *Environmental Ethics*. Metaphysical theses also form part of the theories developed in: Val Plumwood, *Feminism and the Mastery of Nature* (London: Routledge, 1993); Bill Devall and George Sessions, *Deep Ecology: Living as if Nature Mattered* (Salt Lake City, Utah: Gibbs Smith, 1988); Eric Katz, *Nature as Subject: Human Obligation and Natural Community* (Lanham, Md.: Rowman and Littlefield, 1997); Kate Soper, *What Is Nature? Culture, Politics, and the Non-Human* (Oxford: Blackwell, 1995). Keekok Lee has argued that environmental philosophy must begin with ontology rather than axiology, in *The Natural and the Artifactual: The Implications of Deep Science and Deep Technology for Environmental Philosophy* (Lanham, Md.: Lexington, 1999).

18. See chap. 9 of Callicott, *Earth's Insights*, "A Postmodern Evolutionary-Ecological Environmental Ethic"; also "The Metaphysical Implications of Ecology," "Intrinsic Value, Quantum Theory, and Environmental Ethics," both in Callicott, *In Defense of the Land Ethic*; and "After the Industrial Paradigm, What?" in Callicott, *Beyond the Land Ethic*.

19. For example, in "Animal Liberation: A Triangular Affair," in Callicott, *In Defense of the Land Ethic*.

20. Callicott, *Beyond the Land Ethic*, 13, 11, 10.

21. See Light's contributions to *Environmental Pragmatism*, Andrew Light and Eric Katz, eds. (London: Routledge, 1997). Others' contributions to the same anthology are of course relevant here.

22. "Animal Liberation: A Triangular Affair," and "Animal Liberation and Environmental Ethics: Back Together Again," in Callicott, *In Defense of the Land Ethic*.

23. See also his essays, "Traditional American Indian and Western European Attitudes Toward Nature: An Overview," and "American Indian Land Wisdom? Sorting Out the Issues," in Callicott, *In Defense*. See also Thomas W. Overholt and J. Baird Callicott, *Clothed-in-Fur and Other Tales: An Introduction to An Ojibwa World View* (Washington, D.C.: University Press of America, 1982).

24. J. Baird Callicott, "The Wilderness Idea Revisited: The Sustainable Development Alternative," *The Environmental Professional* 13 (1991): 235–247. Callicott also discusses other problems with the concept of wilderness in this essay.

25. On aesthetics, see his "The Land Aesthetic" in *Companion to "A Sand County Almanac": Interpretive and Critical Essays*, ed. J. B. Callicott (Madison: University of Wisconsin Press, 1987). On education, see J. B. Callicott and Fernando J. R. da Rocha, eds., *Earth Summit Ethics: Toward a Reconstructive Postmodern Philosophy of Environmental Education* (Albany, N.Y.: SUNY Press, 1996). On conservation biology, see his essay "Whither Conservation Ethics?" in *Conservation Biology* 4 (1990): 15–20.

26. Callicott, *In Defense of the Land Ethic*, 12.

Part I

The Conceptual Foundations of the Land Ethic

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I

Ecological Morality and Nonmoral Sentiments

ERNEST PARTRIDGE

*Arcturian zoologists visiting this planet could make no sense of our morality
and art until they reconstructed our genetic history—nor can we.*

—Edward O. Wilson, *Biophilia*

MORAL SENTIMENTS

Radical environmentalists have often characterized *Homo sapiens* as a cancerous mutation, heedlessly devouring the planetary body that nurtured and sustains it, and thus veering toward its own destruction and that of its ecosystemic host.

If this bleak scenario is to be reversed, a key ingredient of our collective rescue must be a mix of scientifically informed insight into the consequences of our assaults upon the planet; a clear view of our duties to our species, the ecosystem, and the future; and finally the motivation to do what that duty demands of us. Of these, the third, *motivation*, and the sentiments that support it, has arguably received the least attention.

In several of his essays, J. Baird Callicott has enriched Aldo Leopold's visionary land ethic with the insights of critical and normative ethics, thus bringing Leopold's vision into the arena of philosophical debate and scholarship. To his credit, Callicott has recognized the essential role of moral psychology to a cogent environmental ethic.

Although I share Callicott's conviction that an environmental ethic cannot stand without a theory of sentiments, I dispute his suggestion that David Hume's theory of moral sentiments adequately functions in this role.¹ To the contrary, I contend that Humean *moral* sentiments are more likely to reinforce anthropocentrism and alienate humans from nature. If moral senti-

ments are to aid the ecological moralist, they must do so in a secondary way by binding human communities and motivating them to appropriate action in the defense of their natural contexts and heritage. However, for a primary motivational support of environmental ethics, we must look to the *nonmoral* sentiments. In this essay, I close with a suggestion as to where we might find those requisite nonmoral sentiments.

In several publications Callicott has attempted to show that Leopold's land ethic "actually has a legitimate ancestry in the Western philosophical canon . . . traceable through [Charles] Darwin [in the *Descent of Man*], to the Scottish Enlightenment in the eighteenth century," notably the moral philosophy of Adam Smith and David Hume.² He thus outlines "The Conceptual Foundations of the Land Ethic," in his essay of that title:

Its conceptual elements are a Copernican cosmology, a Darwinian protosociobiological natural history of ethics, Darwinian ties of kinship among all forms of life on earth, and an Eltonian model of the structure of biocenoses all overlaid on a Humean-Smithian moral psychology. Its logic is that natural selection has endowed human beings with an affective moral response to perceived bonds of kinship and community membership and identity; that today the natural environment, the land, is represented as a community, the biotic community. . . .³

If we are to assess this claim, a review of some elements of Hume's moral philosophy is in order. First, Hume posits that moral judgment is based, not on reason, but on "some internal sense or feeling which nature has made universal in the whole species." In this crucial assertion, we find that to Hume, morality is strangely both subjective ("internal") and "universal" because these "moral sentiments" issue from "the original fabric and formation of the human mind, which is naturally adapted to receive them."⁴ Note the explicit reference to the "natural" foundations and adaptations of the human mind and morality. I have much to say about this point later.

"Morality," writes Hume, "is determined by sentiment. It defines virtue to be *whatever mental action or quality gives to a spectator the pleasing sentiment of approbation*, and vice the contrary."⁵ Prominent among the moral sentiments mentioned by Hume are generosity, love, friendship, esteem, compassion, gratitude, guilt, shame, contempt, and hatred. Primary among these are the sentiments of *benevolence* and *sympathy*—in fact, the latter might better be regarded as the capacity necessary for the generation of the sentiments. Note how all these sentiments are personal, that is, either reflecting or referring to qualities of persons.

Thus, if I understand him correctly, Callicott is attempting to demonstrate that Humean moral sentiments emerged from “the original fabric and formation of the human mind,” as Hume himself put it in words that Charles Darwin could and apparently did embrace. Such sentiments, argues Callicott, can extend out from the individual to attach to his immediate family and friends, then to the society beyond, and finally may affirm the life community itself and thus support a normative environmental ethic.

I believe this view to be unworkable because (1) the application of “moral sentiments” ends with our “moral community,” which (2) can be no more than a community of persons, or at most, of sentient beings, due to the profound disanalogies between such “moral communities” and Leopold’s “natural community” of ecosystems. These points require argument. I begin with moral sentiments.

Just what are *moral sentiments*? Let’s take the phrase one word at a time. First, I interpret the crucial term *moral* in a manner I believe to be fairly standard among contemporary moral philosophers. The adjective *moral* must have, lurking at least somewhere in its context of application, some deliberative agent or community of agents, which is to say, a “person” (although not necessarily a human). *Moral* implies responsibility, accountability, praise, and blame. In essence, a moral judgment is a judgment that reflects upon the worth of a person. Persons of moral worth are called “virtuous,” and persons of little worth are called “wicked.” Acts that reflect well on persons are “right” and their opposites are “wrong.” On a planet without persons, however teeming with sentient but nondeliberative and nonreflective life, there will be “goods” and “bads,” but no morality—no right and wrong, no justice, no duties, no rights. Put bluntly, if the latest data of human evolution are to be believed, morality emerged upon the Earth within the past million years—possibly within the past few tens of thousand years.

Moral sentiment, then, is simply an emotional and evaluative attitude toward a person, persons, or their institutions. Positive and negative moral sentiments toward oneself include, respectively, *self-esteem* and *guilt* or *shame*. Toward others, these sentiments are respectively called *admiration* and *indignation* or *contempt*. Of particular interest to Hume, and thus to Callicott, are the moral sentiments of *sympathy* and *benevolence*.

We morally praise and blame people with regard to their treatment of other persons. The traditional virtues (i.e., *courage*, *charity*, *benevolence*, *trust*, and *fidelity*) testify to the command of our will and signify our recognition of the worth of other persons. The deadly sins (i.e., *pride*, *lust*, *anger*, *gluttony*, *sloth*, *envy*, and *greed*) issue from our depersonalization of our brethren and stigmatize the willful crippling of our moral potential.

The worth of persons—of oneself and of those with whom we deal—is the paradigm context of moral evaluation. The invasion of personal interest and the destruction of personal property have traditionally been regarded as paradigms of immorality. By extension, the infliction of pain upon defenseless, sentient nonpersonal beings has been seen as a penumbral immorality.

With this elucidation, I submit that the problem of basing a normative environmental ethic on *moral* sentiments becomes clear. *Moral* sentiments seem to require *persons* in the equation. But what if persons are not apparent among the objects of our concern? We can ask: “Why does the clear-cutting of a primeval forest, the damming of a wild river, or the extinction of a species, violate a normative environmental ethic?” If these are moral wrongs, then one must presumably show that the agents responsible have done something that reflects poorly upon them as persons, due perhaps to their wrongful treatment *of* persons. Yet all this environmental destruction might be done *on behalf of* persons: the rain forest cut on behalf of the poor farmers, dams built to provide cheap and abundant power, and so on.

To state that the willful destruction of nature is morally wrong, presupposes an underlying theory of value that supports principles, the violation of which reflects unfavorably upon the worth of the agent responsible for this destruction. As the precondition for moral evaluation, such a theory must be a theory of *nonmoral* value, otherwise the theory will be circular.⁶ Thus, if this theory is based upon sentiments, then these must be *nonmoral* sentiments.

At this point, two theoretical roads diverge: along one, we return to a familiar anthropocentrism by identifying *nonmoral value* as pleasure/pain, or human potential and welfare, or some other “good for people”—choose your theory. Along the other road, we might seek intrinsic values in nature, a vast and fascinating realm of inquiry. The second road, I believe, is far more promising for environmental ethics, and Callicott has often explored it in promising and suggestive ways.

Unfortunately for the argument offered by Callicott, Hume appears to have had the first road in mind. As Callicott correctly points out, Hume’s moral sentiments have their origin in interpersonal relationships. These sentiments are evoked by our recognition of the personhood or sentience in others. *Personhood* is not only the source of these moral sentiments but also its limit. Accordingly, the Humean sentiment of *benevolence* is not directed toward insentient nature, much less toward abstractions such as species or ecosystems.⁷ Nor can Humean *sympathy* connect with objects in or conditions of impersonal nature. Hume could not have been more explicit concerning this point than when he wrote: “Inanimate objects . . . can never be the object of love or hatred, nor are [they] consequently susceptible of merit

or iniquity.”⁸ Thus, the Humean moralist will favor the logger and his dependent family over the old-growth forest, the abalone fishermen over the sea otters, the Lake Powell water skiers over the Glen Canyon wrens. I submit that the uses to which Callicott is putting moral sentiments would astonish David Hume.

Humean moral sentiment is a poor theoretical stream in which to fish for a land ethic.

HUMAN AND NATURAL COMMUNITIES

Like Callicott and many other ecophilosophers, I find Leopold’s “natural community” metaphor to be attractive and have often used it. Occasionally, some of my colleagues have warned me not to be beguiled by this metaphor. Reading Callicott, I begin to see what they had in mind.

No one can read Leopold without recognizing immediately and vividly the aptness of the community metaphor. As in human societies, the individual “members” survive and flourish only as they interact and respond, share and cooperate (even in the “cooperative” act of predation), and thus sustain the “community”—a whole that is more than the sum of its individual parts, in fact that is best conceived, not in terms of its component parts, but in terms of its internal relations and processes.

So much for the compelling analogies. One fundamental disanalogy remains: the human community alone is characterized by reciprocity among moral agents. Thus, *rights*, *duties*, *justice*, and *responsibility* belong exclusively to the axiological vocabulary of human communities. These terms are meaningless in the natural community unless that community is touched by the human (or better, the *personal*).⁹

If the reach of moral sentiment stops at the barrier of personhood or, at most, of sentience, does not the extent of the moral community likewise end with those beings who can reciprocate the bonds of moral consideration, or at least have the bare neural equipment to care how they are treated? Callicott thinks not and for reasons now familiar to us. In “Intrinsic Value, Quantum Theory, and Environmental Ethics,” he writes:

Hume suggests that the values you project onto objects are not arbitrary, but arise spontaneously in you because of the “constitution of your nature.” . . . Leopold masterfully played upon our open social and moral sentiments by representing plants and animals, soils and waters as “fellow members” of our maximally expanded “biotic community.” Hence, to those who are ecologically well-informed, non-

human natural entities are inherently valuable—as putative members of one extended family or society. And nature as a whole is inherently valuable—as the one great family or society to which we belong as members or citizens.¹⁰

Here Callicott boldly goes where few moral philosophers have gone before, carrying his community metaphor to the far end of the field.

A critic of Callicott may reply:

It is just the differences between human and natural “communities” that cause me to reject this extension. Extend out from human communities, and you leave the domain of cognition and reciprocation among equals, to that of mere sentience, and then, into the domain of insentience and nonlife. As you do, you shed the stringency of your moral imperatives. Thus, as my neighbor cares how I treat him and his property, so then must I respect his concerns, as I demand that he respect mine. To assure this mutual respect and restraint, we form communities regulated by laws. But that redwood and that river don’t care in the least how I treat them—so why should I? Granted, if I despoil the tree and the river, and thus violate the “integrity, stability and beauty” of the so-called ecological “community” of which they, and I, are a part, I will also impoverish my world and that of my neighbors and posterity. So I’ll keep on paying my Sierra Club dues, and I’ll agree to march on Washington. But I’ll do all this for my sake, and that of my neighbors and posterity—not for the “sake” of the tree and river which, strictly speaking, have no “sake.”¹¹

Callicott correctly points out that it is scientific knowledge that makes us “ecologically well-informed” by teaching us that the ecosystem is a figurative “community” in the sense of a cooperative scheme of interacting parts, and of information, energy, and nutrient distribution. But the social sciences also point out significant dissimilarities between ecosystems and human communities of persons, with their complex systems of moral controls (e.g., reciprocating rights and duties, procedural and distributive justice, sanctions, moral sentiments.) To be fully “well-informed” is to be aware both of the similarities and the differences of these two “communities.”

Nevertheless, the attempt to extend, by analogy, our loyalty to our human community over to the natural, is based on the presupposition that our *human* community deserves our *prima facie* loyalty (surely one of the most fundamental assumptions of political philosophy). Notice how Callicott uses this presumptive “community loyalty” to derive, by extension, a (deontolog-