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Our Limits Transgressed

Environmental Political Thought in America

Bob Pepperman Taylor

OUR LIMITS TRANSGRESSED

American Political Thought

edited by

Wilson Carey McWilliams and Lance Banning

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For Fran, Aaron, and Rachel

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Kansas Open Books Preface

The very first page of *Our Limits Transgressed: Environmental Political Thought in America* will provide the reader with a strong indication of how much has changed in the more than a quarter century since the book was published. There I observe that in the first twenty years after Earth Day in 1970, both Democratic and Republican politicians positioned themselves as environmentally sensitive. In the course of the next twenty years, of course, the Republican Party would become unremittingly hostile to environmentalists and environmental concerns, portraying what had once been a broadly bipartisan movement as a sinister and elitist attack on the liberties of individuals and businesses. As I write, the Trump administration has withdrawn the United States from the Paris Climate Agreement, abolished or significantly weakened environmental regulations established by previous administrations, and continues to do all it can to hobble the Environmental Protection Agency (EPA) which, we should remember, was established by Republican president Richard Nixon half a century ago. As the evidence for climate change becomes overwhelming and the consensus about the human impact on climate warming deepens within the scientific community, our dysfunctional American politics has produced a profound division between the majority who accepts these realities and a powerful minority, led by the Republic Party, denying the truth and even the moral integrity of climate science. Anyone coming of age in the twenty-first century may find the opening of this book hard to believe.

As one reads on, there are other ways in which the book clearly addresses an earlier period. Many of the authors discussed no longer claim prominence in our environmental debates. Arguments between biocentrists and anthropocentrists, or between Neo-Malthusians and resource optimists, or concerning whether or not nature can have moral and

legal rights, have receded, while debates about the Anthropocene and the most prudent approaches for confronting climate change now rage. None of this is surprising. Environmental activism has focused on a host of new environmental issues in the twenty-first century, from global heating to sustainable local agriculture. Our environmental problems and our environmental politics have evolved significantly since 1992, and our environmental political thought has evolved with them.

For all this, however, there is a significant and important thread of continuity from the debates discussed here to the debates of our present time. I suggest in this book that environmental disputes in the United States are best understood as organized around two competing traditions: the pastoral and the progressive. The former, tracing its roots back to Henry David Thoreau, councils an agrarian modesty toward nature (as a requirement for both personal satisfaction and democratic efficacy), while the latter promotes a utilitarian management of natural resources (for the sake of democratic stability and economic prosperity). This division within the environmental movement has, if anything, become deeper since *Our Limits Transgressed* first appeared. By far the dominant and more powerful voices continue to be of those who would rationally manage the natural world for the health and safety of human society. These voices range from the moderate and prudent to the exuberantly aggressive and optimistic about the human ability to willfully manipulate and control the natural world. In contrast, Thoreauvian pastoralists challenge the arrogance of the progressive project, suggesting that human life will be better understood as requiring more modest accommodations to and acceptance of natural limits and constraints.

With the emergence of the idea of the Anthropocene, it now seems to many that the human management of the natural world has become more a matter of fact and necessity than of choice. Some, like Mark Denny, are willing to accept this burden with a kind of chastened hope and sense of responsibility: "We have the smarts to think up technofixes to mitigate or even reverse the bad effects of climate change, but collectively we are too stupid to put them into effect fully, or in a timely manner."[1] "Technofix" may be our only realistic option,[2] but Denny is

1. Mark Denny, *Making the Most of the Anthropocene: Facing the Future* (Baltimore: Johns Hopkins University Press, 2017), 150.
2. Denny, *Making the Most*, 115.

skeptical enough about our political life to understand how daunting our challenges are even if the engineers have realistic ideas for how to mitigate, manage, or even reverse the conditions of climate change. Erle Ellis, in contrast, is much more enthusiastic about the degree to which "ecosystem engineering comes naturally to us," and how in the Anthropocene, "humans do not disturb nature. We reshape it."[3] Among the voices of the most technologically aggressive environmentalists today are Ted Nordhaus and Michael Shellenberger, authors of the influential 2004 essay "The Death of Environmentalism" and founders of the Breakthrough Institute, which aims to generate an optimistic, technologically sophisticated environmentalism that unapologetically assumes responsibility for shaping the natural world to suit human purposes. In *Break Through* (2007), the book elaborating on "The Death of Environmentalism," they insist that nature is no more or less than the stuff available for human exploitation: "We will not put the world back the way it was, nor will we renounce our desire to control nature. We have risen, not fallen. In the words of one founding father of environmentalism [Stewart Brand], who long ago broke from the politics of limits, 'We are as gods and might as well get good at it.'"[4] From the prudent to the Promethean, the progressive environmental tradition lives on in the hope of wedding scientific control of nature to the purposes of democratic society.

As the attention of so much contemporary environmentalism has turned to managing the health and safety of human society in an age of profound environmental danger, with varying degrees of optimism and enthusiasm for the task, a smaller but influential minority protests what it views as the arrogance of the progressive environmental tradition itself. The old environmental warrior, Dave Foreman, unleashes characteristically blunt criticism of the managerial utilitarianism informing so much environmentalism: "Such uncaring, careless, carefree brushing away of all other Earthlings but for the ecosystem services they give the

3. Erle C. Ellis, "Too Big for Nature," in Ben A. Minteer and Stephen J. Pyne, eds., *After Preservation: Saving American Nature in the Age of Humans* (Chicago: University of Chicago Press), 28, 29.

4. Ted Nordhaus and Michael Shellenberger, *Break Through: From the Death of Environmentalism to the Politics of Possibility* (Boston: Houghton Mifflin, 2007), 271.

last surviving ground ape is—how can I say this—wicked. It is awash in sin, it is treason to life, to Earth, and to all other Earthlings."[5] The British environmental writer Paul Kingsnorth is equally disgusted with these developments: "Today's environmentalism is as much a victim of the contemporary cult of utility as every other aspect of our lives, from science to education."[6] He can't "speak with a straight face," he writes, "about saving the planet when what I really mean is saving myself from what is coming."[7] At the end of the day, the position Rachel Carson articulated many years ago in *Silent Spring* continues to resonate through a "pastoral" tradition of the environmental movement. "The 'control of nature,'" she argued, "is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man."[8] Consider the importance of the local food movement and its patron saint, Wendell Berry, who teaches us to embrace technological simplicity, economic modesty, and the voluntary submission to natural limits as a precondition for a humane and just life. The embattled pastoral environmental tradition continues to view the project of controlling nature as a symptom of our illness rather than as the solution before us.

It is as true today as it was when *Our Limits Transgressed* was published in 1992 that the progressive and pastoral traditions provide us with very different conceptions of our moral and political obligations. In light of the significant strains on present-day democratic politics, and the dramatic dangers posed by a rapidly changing environment, it is perhaps even more urgent for us to think seriously about how to wed our democratic and environmental values. While our contemporary politics and the depth of our environmental problems give reasons for grave concern about the possibility of achieving this goal, the traditions discussed in this book provide us with resources for approaching the task. To lose either our democratic or our environmental bearings

5. Dave Foreman, "The Anthropocene and Ozymandias," in Minteer and Pyne, *After Preservation,* 56.

6. Paul Kingsnorth, *Confessions of a Recovering Environmentalist and Other Essays* (Minneapolis: Graywolf, 2017), 68.

7. Kingsnorth, *Confessions*, 80.

8. Rachel Carson, *Rachel Carson: Silent Spring and Other Writings on the Environment* (New York: Library of America, 2018), 258.

is potentially tragic, and to lose them both would constitute a tragedy of the highest order.

Bob Pepperman Taylor
Colchester, VT
July 2019

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O sweet spontaneous
earth how often have
the
doting

fingers of
prurient philosophers pinched
and
poked

thee
, has the naughty thumb
of science prodded
thy

beauty . how
often have religions taken
thee upon their scraggy knees
squeezing and

buffeting thee that thou mightest conceive
gods
(but
true

to the incomparable
couch of death thy
rhythmic
lover

thou answerest

them only with

spring)

e. e. cummings

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Preface to the Paperback Edition

Since I finished writing *Our Limits Transgressed,* the debates in the environmental literature have proceeded unabated. Much here is familiar and comes as little surprise to anyone who has followed the debates of the previous decade or two, but there is at least one development that is worth noting: there is a new tone in some of the criticisms of environmentalism. There has never been, nor is there now, a shortage of books and articles critical of environmentalism and environmentalists, and it has been and remains common for critics to dismiss environmentalists as marginal, hysterical, even subversive and disloyal, or, perhaps, as white middle-class elitists preoccupied with their own quality of life and indifferent to the plight of their less advantaged nonwhite neighbors. Since 1992, however, books have appeared that are deeply critical of environmentalism but do not fit neatly within the recognized genres of "anti-environmentalist" literature. In fact, these critical books are written by individuals who have been involved with or supportive of the environmental movement but who are having significant doubts about the current direction of the movement. This critical literature marks something of a turning point for environmental political thought in America.

Consider Christopher Stone's *The Gnat Is Older Than Man.* Stone, a major figure in environmental ethics debates (discussed in detail in Chapter 3) exhibits a noticeable impatience with environmental theorists' preoccupation with identifying political and ideological causes for our environmental problems. "I don't know how to explain why so many canisters of wastes and weapons lie corroding on the ocean floors. Fear? Distrust? Aggressiveness? Surplus capital? One only wishes we would recognize the threat and take care of it."[1] Or con-

1. Christopher Stone, *The Gnat Is Older Than Man* (Princeton, N.J.: Princeton University Press, 1993), p. 235.

sider the book *No Turning Back* by Wallace Kaufman. A longtime environmental activist, Kaufman is clearly fed up with what he takes to be the inflated rhetoric and grandiose ideology of contemporary environmentalism, and he fears that these habits of thought will cripple the movement's ability to contend with particular environmental problems in a calm, reasonable, measured way: "After thirty years in the environmental movement, I am worried that as it gains power, it cares less and less about reason and science. . . . In short, I believe the environmental movement has lost touch with reality. Through its recent political success, it has started to exercise power in ways that may do more harm to nature than good."[2] Or consider Charles Rubin's *The Green Crusade.* Equating environmentalism with the antislavery and temperance movements as "part of the ongoing saga of evangelical reform that has characterized American history,"[3] Rubin warns us about the utopianism of much environmentalism and suggests that we need to focus more clearly on specific problems and avoid misleading rhetoric about any unified "environmentalism":

> All the talk about problems of unprecedented scope, all the fearful celebrations of our power, all the hand wringing about the death of nature are distractions from the day-to-day situations and problems of people all over the world. If we do not allow ourselves to be misled by the totality of the environment, and if we do not give in to utopian hopes for a perfect world, we see that what faces us are the same fundamental questions and aspirations of human life that have always faced us. . . . We do not need to explore new ethics for mere survival, nor revive or imagine old wisdom for saving the earth. We need to take care to live decently with an eye to the full range of relationships and responsibilities, human and otherwise, that necessarily characterize a good life.[4]

These authors, and others like them, are uncomfortable with the degree to which environmentalism has become or aims to become a

2. Wallace Kaufman, *No Turning Back: Dismantling the Fantasies of Environmental Thinking* (New York: Basic Books, 1994), p. 7.

3. Charles T. Rubin, *The Green Crusade: Rethinking the Roots of Environmentalism* (New York: Free Press, 1994), p. 10.

4. Ibid, p. 247.

"world view," an ideological system that provides a single explanation for the totality of environmental (and virtually all other) problems and offers an equally totalistic program for their solution.

"Environmentalism" is a large and varied movement, and the portrait painted of environmental thought by these authors inevitably suffers from oversimplification. But it is true enough that much environmentalism has become highly ideological, and it would be wrong for environmentalists to dismiss these critics as just another gang of anti-environmentalists. These authors do not doubt the existence of real environmental problems or the need to devise reasonable strategies for solving them. Their claim is, not that environmental problems are a hoax or a charade, but that contemporary environmentalism contains certain theoretical and political excesses which make it politically irresponsible and hamper its ability to clean up and protect the natural world. This is a claim, I believe, that all who care about the human relationship with the natural world must take seriously.

There is a sense in which these critics of contemporary environmentalism are part of a larger and important democratic discourse about American politics and society. Jean Bethke Elshtain reminds us that any uncompromising ideological politics is an enemy of democracy: "Ideologues who enjoin a world 'beyond compromise' scorn democracy as anemic. They . . . want the world to conform to their totalist dreams."[5] She also warns us that any claim that we are "starting anew," that we "will not be bound by the past, with its petty and benighted ways," is unambiguously antidemocratic.[6] Christopher Lasch, in his final book, also criticized all "ideological rigidity" as having the "effect of obscuring the views Americans have in common, of replacing substantive issues with purely symbolic issues, and of creating a false impression of polarization."[7] Elshtain and Lasch are not thinking specifically about environmentalism, but there is enough ideological and utopian thinking in contemporary environmentalism to give all democrats pause.[8] And this is the strongest point Stone,

5. Jean Bethke Elshtain, *Democracy on Trial* (New York: Basic Books, 1995), p. 112.

6. Ibid., p. 135.

7. Christopher Lasch, *The Revolt of the Elites and the Betrayal of Democracy* (New York: W. W. Norton, 1995), p. 112.

8. For example, see Carolyn Merchant's *Radical Ecology* (New York:

Kaufman, and Rubin are making with regard to environmentalism: beware the degree to which environmental ideology undermines our commitments to democratic life and our ability to pursue a defensible and sensible democratic public policy.[9]

This message is a welcome one and in keeping with my own claim in this book that we need to keep a close eye on both our environmental *and* our democratic values. There is danger in these arguments as well, however. For all its utopian and ideological excesses, environmentalism, especially of the most radical sort, has often reminded Americans of something that we frequently either forget or choose to ignore: that the earth was not created merely for our human pleasure, that our power to manipulate the environment to suit our own purposes is limited, and that this situation is probably as it should be. As Lasch says, "In an age that fancies itself as disillusioned, this is the one illusion—the illusion of mastery—that remains as tenacious as ever."[10] At a time when our religious communities have lost much of their traditional power to humble us before creation, our environmentalist discourse is one of the only places we can find the message of human limits brought to our public attention, however imperfectly. When Stone pragmatically asks us to stop worrying about *how* we got into this mess and instead concentrate on the specifics of cleaning it up, we may hear just the slightest echo of scientific and technological complacency. If we would only think about the problems in the right way, he seems to be suggesting, we will find the tools to deal with them. Kaufman's views are much more explicit: "Science seems to be marching forward and the environmental movement backward."[11] If only we put our faith in science, Kaufman believes, there is no real

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Routledge, 1992). Even while admitting that "radical ecology lacks coherence as a theory and as a movement" (p. 237), Merchant remains undeterred: "Radical ecology and its movements will continue to challenge mainstream environmentalism and will remain on the cutting edge of social transformation, contributing thought and action to the search for a livable world" (p. 240).

9. A chilling example is found in Laura Westra's recent book, *An Environmental Proposal for Ethics* (Lanham, Md.: Rowman and Littlefield, 1994). Westra boasts of her willingness to take the "risk of impugning the 'sacred cow' of democracy" (p. 193) and offers her absolutistic environmental ethics as a "revolutionary" alternative to democratic majoritarianism (pp. 188–89).

10. Lasch, *Revolt of the Elites*, p. 246.

11. Kaufman, *No Turning Back*, p. 15.

reason to fear the future. "A world of 60 billion people would almost surely be unpleasant by today's standards, but not unsustainable in the next century. Methods of housing, feeding, and transporting people will undergo a revolution as unforeseen as fiber optics."[12] Any hint of nervousness about the future we may detect in this comment is thoroughly overridden by Kaufman's conviction that "dominion is ours" and that "as we test nature, we will also test ourselves and the very limits of human wisdom."[13] Kaufman correctly distrusts the utopianism of some environmentalists, but his faith in the human mastery of the natural world is itself startling, frightful, ideological, and utopian. Stone and Kaufman and Rubin are probably right when they say we need to pragmatically focus on the particulars of specific environmental problems. But this focus must not distract us from also worrying about the "arrogance of humanism," and it certainly must not allow us to be seduced by the liberal fantasy of scientific dominion over nature.

The problem which I ended this book with three years ago remains: how do we combine a respect for democratic discourse and politics with an appropriate humility before creation? Although the recent environmentalist literature helps us to formulate the question once again, we are still a long way from a satisfactory answer.

12. Ibid., p. 176.
13. Ibid., p. 181.

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Preface

When Thoreau wrote, in the final passages of *Walden*, that "we need to witness our own limits transgressed," he was ecstatic over the arrival of spring at Walden Pond. The earth was coming to life again, and nature was displaying its full majesty, creativity, beauty, and power. To witness this rebirth was humbling, but it was also invigorating—Thoreau greeted the experience of his own limits transgressed with joy and celebration, rather than fear, trembling, or humiliation. There is a moral lesson to be learned, Thoreau believed, by witnessing nature as he did. If men and women appreciate nature as the true measure of things, they will presumably discover a more authentic and morally satisfying conception of themselves than they do when they take their own power and will as the standard of value and progress.

Even if we are skeptical of Thoreau's claims about the moral significance of nature, we can no longer doubt that the environmental problems we face today are teaching us a hard lesson about our limited ability to control and exploit nature for our own purposes. The thoughtless pillaging of the environment obviously continues to be an enormous problem. But it is perhaps equally disturbing to witness the degree to which the careful, scientific management of nature has failed to fully understand and protect the natural world in all its complexity and fragility. This in turn raises the possibility that ecological and natural resource constraints may limit the freedom with which our civilization can exploit nature to provide us with the liberties, security, wealth, and ease to which we aspire.

At no other time in American history have there been more people who share not only Thoreau's love of nature, but also his belief that nature can provide answers to some of our deepest moral questions. There has also been no time in American history when so many have

been alarmed about the socially generated deterioration of the environment. These concerns reflect the central themes of this book, in which I discuss the problems confronting American environmental political thought today. I have divided this thought into two traditions—the "pastoral" and the "progressive"—in order to illuminate these problems. The pastoral tradition, which I trace from Thoreau to contemporary deep ecology and biocentric philosophy, invokes the moral lessons that nature may possibly teach us. The progressive tradition, which I trace from Gifford Pinchot to today's most important liberal environmental theorists, appeals to the role that nature plays as a support for a liberal democratic society.

These traditions, with their significantly different emphases and perspectives on the role and importance of nature, continue to shape contemporary debates among environmentalists. And it is not surprising that these theorists have, in many ways, become much more sophisticated than their forebears. Thoreau's poetic appeals to the moral significance of nature have been given a great deal more rigor in the hands of contemporary thinkers, who have at their disposal not only the tools of academic philosophy, but also the science of ecology as it has developed over the course of this century. Theorists in the progressive conservation tradition have rightly rejected Pinchot's somewhat crude utilitarianism and have attempted to explain and develop a deeper moral understanding of the natural world while retaining a commitment to basic liberal values and institutions. Our understanding of and appreciation for the importance of the natural environment and the role it might play in our moral life have thus been greatly expanded and sharpened by the modern representatives of these two traditions.

Nevertheless, these gains have not been without a cost—potentially a very serious one. For both Thoreau and Pinchot, thinking about nature and the environment was intimately related to thinking about social and political life. Whatever their differences, they both understood their political views and their conceptions of the value of the natural world to be deeply and intimately connected with one another. It is just this sense of connection, however, that has been significantly weakened or lost altogether in much contemporary environmental ethics and philosophy. As I hope to demonstrate, current environmental thinking has been unable to maintain and develop this

relationship between our political values and the ways in which we do or should value the environment. But this relationship must be established and clearly understood, since our political and environmental values are necessarily connected; just as environmental values potentially limit our political options, so our political commitments serve to define and limit the options available to us in solving environmental problems.

In this book, I identify and discuss many shortcomings in the works of both the progressive and the pastoral traditions. Despite their problems, however, I have become convinced that future environmental political theory must learn from both viewpoints and aim at synthesizing and incorporating the best of each. This will happen only when environmental philosophy begins to self-consciously retrieve, scrutinize, and develop the political commitments that originally inspired both Pinchot and Thoreau. It is this project of retrieval, by first identifying and understanding these commitments and then tracing the manner in which we have strayed from them in our contemporary thinking, to which this book contributes.

In what follows, then, I do not attempt to provide a thorough review or intellectual history of the literature of the environmental movement. My focus has been more selective than exhaustive, and I hope that it has not been arbitrary or capricious. My intention has been to choose from the contemporary literature representative works that are intellectually sophisticated and have been influential in environmentalist circles. For each of the positions I investigate, the literature I discuss has been widely read and debated, or contains the highest level of intellectual merit among literatures with similar views, or (in most cases) both.

I would like to thank my colleagues Frank Bryan, Jan Feldman, and Chris Klyza for reading and commenting on early bits and pieces of the manuscript. Special thanks must go to Lance Banning, Wilson Carey McWilliams, Pat Neal, and Fran Pepperman Taylor for reading the entire manuscript with such care and providing me with helpful suggestions and interesting conversation about the ideas.

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1
The Pastoral and Progressive Visions

> Arise, plead your case before the mountains, and let the hills hear your voice. Hear, you mountains, the controversy of the lord, and you enduring foundations of the earth.
>
> —*Micah 6:1–2*

> Yet thou hast made him little less than God, and dost crown him with glory and honor. Thou hast given him dominion over the works of thy hands; thou hast put all things under his feet.
>
> —*Psalms 8:5–6*

During the last few decades there has been a growing awareness of the environmental problems generated by modern societies, as well as an increase in the intensity and magnitude of these problems. In the late 1950s and early 1960s a relatively small number of American scientists, such as Rachel Carson and Barry Commoner, became alarmed by the environmental consequences of atmospheric nuclear testing and the widespread use of chemical pesticides. Although the writings of these early environmentalists were often bitterly attacked, they gained some positive attention and popularity. It was not until Earth Day 1970, however, that the modern environmental movement began to develop a broad base of support. Twenty years later, environmentalism is no longer a fringe movement or concern—Republican and Democratic politicians alike attempt to appeal to voters on the basis of their sensitivity to environmental issues, and the voters themselves, if public opinion data are to be trusted, have strong environmental concerns and commitments.[1] At least part of this concern is due to the development of global and potentially catastrophic environmental problems: global warming, the depletion of the ozone layer, the pollution of the air and water around every major city, massive oil spills, and a

worldwide population explosion that some believe threatens to exhaust the most elemental natural resources required for human survival. As the vast scope and severity of these problems become increasingly clear, even those who have historically been hostile to the claims of environmentalists have become sympathetic to at least some of these concerns.

The increased severity and awareness of environmental problems have also heightened attention to questions of moral and political theory. One set of questions, which can be thought of as problems of environmental ethics, has to do with the appropriate relationship between people and the natural world. For example, should humans think of the natural world as a body of resources for their own use, or should nature (or perhaps certain elements of it) be regarded as having value equal to and independent of humans? Another set of questions centers on the relationship between political and environmental values; these are questions of political theory. For example, should justice among humans take priority over respect for nature? Can we think of rights as extending to nonhuman entities, and if so, how do they compare in importance to the rights held by citizens? Is political democracy of greater value than appropriate environmental policy, or vice versa?

These issues have received a great deal of attention in American environmentalist writing during the last two or three decades and have generated significant and heated debates. In the literature on environmental ethics, for example, there is an ongoing debate between biocentric theorists, who argue that the interests of nonhuman beings (and perhaps of the biosphere generally) are as important as human interests, and anthropocentric theorists, who argue that human interests are more important than any interests or needs that may be found in the natural world. In the realm of political philosophy, environmental theorists have debated whether democratic decision making is the appropriate way to create environmental policy. The recommendations given in answer to this question have ranged from outright authoritarianism to radical participatory democracy.

Although questions concerning environmentalism and political theory have drawn less attention than questions of environmental ethics they are probably more significant. Environmental problems are collective problems, in both their cause and effect, and they are

thus political problems at their core. In addition, these problems pose direct and radical challenges to contemporary political theory. For example, democratic theory has traditionally been premised on assumptions of expanding wealth and abundance.[2] Such assumptions, however, have been called into question by environmentalist concerns about the "limits to growth" and the depletion of natural resources. In addition, some writers have claimed that democratic politics has itself generated anti-environmentalist social behavior and public policy[3] or at the very least is incapable of contending with the enormous problems created by increasingly scarce resources.[4] Contemporary political theory is being forced to face the challenges raised by environmental problems, which threaten some of this theory's most cherished (and frequently unexamined) assumptions and values. As Marc Landy, Marc Roberts, and Stephen Thomas write, "Our relationship with the environment raises fundamental issues about who we are and what we care about."[5]

The challenge of thinking about these issues has been taken up by those writers who have addressed the relationship between environmentalism and political theory. As a result of the historically unique character of many contemporary environmental problems, much of this political theory is charting relatively new territory. Interest in the physical and natural world is not unknown in political theory—indeed, theorists from Plato to Rousseau to Jefferson have all commented on the relationship of politics to nature, geography, and other aspects of the physical environment. But never before has consideration of these issues been so urgent or so central to the tasks of political theory, so crucial to the foundations of the theories themselves. Environmental political theory is important not only because of its timeliness, but also because of the degree to which it must confront old assumptions and develop fresh perspectives as it attempts to integrate new understandings of nature into a theory of politics.

Environmental political theory may address new substantive issues, but it is not unrelated to previous political discourse. American environmental political thinking falls fairly neatly within two well-established traditions of American political thought—what I will refer to as the pastoral and the progressive—and builds its theories, more or less self-consciously, within these traditions. Leo Marx ends his classic study of American literature, *The Machine in the Garden*, by observ-

ing that the tension between the pastoral and the machine is the "root conflict of our culture."[6] If we think of the pastoral as representing simple village and rural agricultural life, and the machine as symbolizing advancing technology, industrialization, modern science, and the wholesale engineering of the environment, Marx's claim strengthens our grasp of these two fundamental strains of American environmental political thought. The pastoral tradition, whose central figure is Henry David Thoreau, rebels against commercial and industrial society and calls for the simplification of life, tutored and informed by an appreciation and understanding of nature. The progressive tradition, whose central figure is Gifford Pinchot, emphasizes the wise technical administration of natural resources for the enhancement of material life and the support of distributive justice. The contrast between these two theorists and the traditions they represent has been frequently discussed. What is less frequently appreciated is the degree to which the positions of Thoreau and Pinchot represent not only competing environmental theories, but competing political theories as well.

Perhaps the most widely quoted statements from Thoreau's writings in the environmentalist literature come from one of his last essays, "Walking," where he claims that "in Wildness is the preservation of the World."[7] Elsewhere in this essay Thoreau writes, "Life consists with wildness. The most alive is the wildest. Not yet subdued to man, its presence refreshes him."[8] These and similar sentiments, scattered throughout Thoreau's texts, are used by environmentalists to illustrate Thoreau's commitment to wilderness preservation and his belief that wilderness can inspire both individuals and civilization as a whole.

There is no doubt that Thoreau does advocate both wilderness preservation and its special ability to inspire. In *The Maine Woods*, for example, Thoreau argues for the establishment of national forests, which should be left in their natural state:

> The kings of England formerly had their forests "to hold the king's game," for sport or food, sometimes destroying villages to create or extend them; and I think that they were impelled by a true instinct. Why should not we, who have renounced the king's authority, have our national preserves, where no villages need be

> destroyed, in which the bear and panther, and some even of the hunter race, may still exist, and not be "civilized off the face of the earth,"—not for idle sport or food, but for inspiration and our own true re-creation? or shall we, like villains, grub them all up, poaching on our own national domains?[9]

For Thoreau, pristine wilderness has some essential qualities that must be protected both for and from civilization, qualities necessary for our "inspiration" as well as our "re-creation."

In "Walking," Thoreau elaborates on his claim that civilization requires the lessons provided by wild nature:

> The West of which I speak is but another name for the Wild; and what I have been preparing to say is, that in Wildness is the preservation of the World. Every tree sends its fibers forth in search of the Wild. The cities import it at any price. Men plow and sail for it. From the forest and wilderness come the tonics and barks which brace mankind. Our ancestors were savages. The story of Romulus and Remus being suckled by a wolf is not a meaningless fable. The founders of every state which has risen to eminence have drawn their nourishment and vigor from a similar wild source. It was because the children of the Empire were not suckled by the wolf that they were conquered and displaced by the children of the northern forests who were.[10]

While it is clear from this passage that Thoreau believes wild nature is the foundation of a dynamic civilization, the precise quality of this role is quite obscure. It is tempting to read this paragraph as praise for those empires and nations that have "risen to eminence" through military and political power, but Thoreau's other writings (for example, the famous opening lines of "Civil Disobedience") testify to his great scorn for such empires and conventional political affairs. The most we can infer from this passage is that Thoreau believes that wild forests provide vigor and valuable resources to people and civilizations and that civilizations with the deepest roots in such wild forests are the most vibrant and healthy.

Thoreau's claim that "in Wildness is the preservation of the World," therefore, raises two questions about his meaning here and elsewhere

in his writings. First, how does Thoreau define "wildness?" What image of the natural world does he have in mind when he suggests the importance of wildness? Second, what does Thoreau mean when he claims that this wildness will "preserve" the world? Both questions require an answer if we are to understand Thoreau's pastoral environmentalism and the role it plays in his criticism of American politics and society.

Although Thoreau urges the protection of wild and uncivilized places, this is not the sum total of his thinking. When he first went to Maine in 1846, Thoreau was disturbed and uncomfortable with the wilderness there. "Nature was here something savage and awful, though beautiful. . . . It was a place for heathenism and superstitious rites,—to be inhabited by men nearer of kin to the rocks and to wild animals than we."[11] It was important to preserve some land such as this—land that, as Roderick Nash says, "shocked" Thoreau[12]—but nature had other incarnations that were ultimately of much greater importance to Thoreau than untouched wilderness.

When Thoreau wrote in *Walden* that "we need the tonic of wildness" and "we can never have enough of Nature,"[13] he was living in a very different environment from the wilds of Maine. Walden Pond, of course, was surrounded by cultivated land and near a village. Situated between the civilization of Concord and the wilderness beyond, it was to this pastoral space that Thoreau was most drawn. Nash is correct, I think, when he concludes: "For an optimum existence Thoreau believed, one should alternate between wilderness and civilization, or, if necessary, choose for a permanent residence 'partially cultivated country.' The essential requirement was to maintain contact with both ends of the spectrum."[14] Thoreau was a pastoralist, not a primitivist. Although he was attracted to the wild and uncultivated, he was also somewhat alienated from nature in this pure form.[15]

That Walden was the pastoral setting in which Thoreau was most at home can be illustrated by Thoreau's comments about Native Americans. There are many passages in his writings that suggest that Thoreau considered the Indians as role models; and given Thoreau's understanding of Native American life and culture, emphasizing only these sections might support a primitivist reading of his views.[16] For example, in *A Week on the Concord and Merrimack Rivers*, he praises the

relationship of Indians to their natural environment: "The Indian's intercourse with Nature is at least such as admits of the greatest independence of each."[17] Elsewhere he refers to his desire to cultivate "Indian wisdom,"[18] and he certainly admires the way in which Native Americans lived in balance with nature. Nonetheless, Thoreau was firmly committed to what he called "civilization," by which he meant European civilization. In "Walking," Thoreau contrasts the Indian with the white farmer. "I think that the farmer displaces the Indian even because he redeems the meadow, and so makes himself stronger and in some respects more natural."[19] The farmer is not only perhaps more natural—in Thoreau's sense—than the Indian, but also provides Thoreau with a heroic symbol:

> The weapons with which we have gained our most important victories, which should be handed down as heirlooms from father to son, are not the sword and the lance, but the bushwack, the turf-cutter, the spade, and the bog hoe, rusted with the blood of many a meadow, and begrimed with the dust of many a hard-fought field. The very winds blew the Indian's cornfield into the meadow, and pointed out the way which he had not the skill to follow. He had no better implement with which to intrench himself in the land than a clam-shell. But the farmer is armed with plow and spade.[20]

In *Walden*, too, Thoreau asserts that "civilization" is "a real advance in the condition of man" over the life of the "savage," although "only the wise improve their advantages."[21] The most powerful exemplar in Thoreau's writings is not the Native American but John Brown. And Brown is portrayed by Thoreau as the greatest of the Puritans, greater than even the heroes of the Revolution, and, more significantly, as a product of the pastoral American West rather than the overly civilized halls of Harvard University.[22] As he writes in *Walden*, "The civilized man is a more experienced and wiser savage."[23]

Thoreau's ideal nature, then, was not the uncultivated, but the properly cultivated, not the primitive, but the pastoral and civilized (properly understood). As Wilson Carey McWilliams writes, "Thoreau's quarrel with civilization . . . lay in his charge that civilization was insufficiently civilized."[24] The "wildness" that Thoreau believed

could "preserve" civilization was pastoral, not untamed and primeval.[25]

The more difficult and important question can now be addressed: What does Thoreau see as the moral and redemptive role of nature in the "preservation of the World"? In the opening passages of "A Natural History of Massachusetts," Thoreau writes, "The merely political aspect of the land is never very cheering; men are degraded when considered as the members of a political organization. . . . In society you will not find health, but in nature. Unless our feet at least stood in the midst of nature, all our faces would be pale and livid. Society is always diseased, and the best is the most so."[26] Similar sentiments are expressed in "Walking" when Thoreau contrasts civilization and nature: "I wish to speak a word for Nature, for absolute freedom and wildness, as contrasted with a freedom and culture merely civil—to regard man as an inhabitant, or a part and parcel of Nature, rather than a member of society. I wish to make an extreme statement, if so I may make an emphatic one, for there are enough champions of civilization: the minister and the school committee and every one of you will take care of that."[27] In order to provoke the reader into a greater appreciation of the natural world, and our potential relationship to it, Thoreau separates experience into two radically different spheres, civilization and nature. From this iconoclastic position, he speaks as a partisan of the latter against the former. The implication is that nature serves as an alternative to, or a refuge from, society, and each individual must choose between the two. Thoreau's own commitment is clear: "If you are ready to leave father and mother, and brother and sister, and wife and child and friends, and never see them again—if you have paid your debts, and made your will, and settled your affairs, and are a free man—then you are ready for a walk."[28]

This stark contrast between society and nature seems to be reinforced by Thoreau's comments about politics in "Civil Disobedience." "I simply wish," he claims, "to refuse allegiance to the State, to withdraw and stand aloof from it effectually."[29] In the case of the poll tax that Thoreau was required to pay, however, simple withdrawal from the political world was impossible. Because of the severity of the evils that he believed he would be supporting if he paid the tax—the institution of slavery and an imperialistic war with Mexico—Thoreau felt that he must defy the government. In such a case, the moral individ-

ual must let his or her life "be a counter-friction to stop the machine" of the state.[30] This rebellion, however, is only secondarily aimed at political reform. The foremost concern is to prevent the individual from becoming a party to the evil at hand. "What I have to do is to see, at any rate, that I do not lend myself to the wrong which I condemn."[31] In fact, Thoreau finds the entire confrontation to be tiring and distracting, but he is comforted by the fact that such rebellions are unusual episodes in his otherwise independent, apolitical life: "The government does not concern me much, and I shall bestow the fewest possible thoughts on it. It is not many moments that I live under a government, even in this world. If a man is thought-free, fancy-free, imagination-free . . . unwise rulers or reformers cannot fatally interrupt him."[32]

Thoreau's position in this essay is similar to that in "Walking" and "A Natural History of Massachusetts." At his cabin by Walden Pond, or in other communion with nature, Thoreau is able to concentrate on the serious business of living. Civilization, society, and the state all threaten to intrude upon his solitude and freedom, and they present him with distractions and potentially serious threats to his moral integrity. In "Civil Disobedience," the degree of his alienation from society is indicated by the options he presents regarding his relationship with the state: Withdrawal and rebellion are the only alternatives. There is no indication that conventional participation as a citizen is a possibility for him, and he explicitly refuses to entertain this option. "It is not my business to be petitioning the Governor or the Legislature any more than it is theirs to petition me; and if they should not hear my petition, what should I do then? But in this case the State has provided no way: its very Constitution is the evil."[33] In "Walking," the social relationships of family and friendship represent impediments to be overcome before an individual is ready to experience the natural world; in "Civil Disobedience," the state becomes the impediment.

In these writings, Thoreau seems to suggest that the moral role of nature is the refuge it provides from the mundane and immoral world of ordinary men and women. Nash argues that "the development of Thoreau's wilderness philosophy is most meaningful when juxtaposed to this sense of discontent with his society."[34] Thoreau's radical criticism of American society drove him to nature, where he could

find the truth, solitude, and meaning lacking in nineteenth-century society. "Wilderness," Nash concludes, "was ultimately significant to Thoreau for its beneficial effect on thought."[35]

This conclusion is certainly warranted if we focus on the kind of passages discussed above. There, Thoreau's apparent anarchism and radical individualism lead him to an almost misanthropic rejection of the human world. These elements in Thoreau's writings reflect the most pessimistic moods and moments in his work, where nature is clearly portrayed as an escape from human society. The irony is that the nature to which Thoreau is retreating is a pastoral, cultivated, and peopled nature, which is itself a branch of society.

There is in Thoreau's writings, however, another strain that I believe is more central and important. Nash's reading of Thoreau leads him to conclude that the exclusive role of nature is to provide solace for the thinker, the only comfortable environment for a philosopher in an alien and hostile human world. This reading makes sense if "Civil Disobedience" is thought of as Thoreau's central political work and essays such as "Walking" are viewed as his central works concerning nature. However, Thoreau's most developed considerations of both politics and nature are found in *Walden*. And in *Walden* there is a very different and more hopeful message about politics, the moral importance of nature, and the relationship between the two.

To understand Thoreau's project in *Walden*, it is helpful to consider two themes in his thought that emerge as early as his college years at Harvard. In a brief essay written while he was a student, Thoreau asserts that the "end of life is education."[36] This education, he argues, is best supplied by nature rather than by "art" or civilization. "Nature is continually exerting a moral influence over man, she accommodates herself to the soul of man."[37] It is contact and sympathy with nature that allows the cultivation of true wisdom.

> A nation may be ever so civilized and yet lack wisdom. Wisdom is the result of education, and education being the bringing out, or development, of that which is in a man, by contact with the Not Me, is safer in the hands of Nature than of Art. The savage may be, and often is, a sage. Our Indian is more of a man than an inhabitant of a city. He lives as a man—he thinks as a man—he dies as a man. The latter, it is true, is more learned; learning is

> Art's creature; but it is not essential to the perfect man—it cannot educate.[38]

The romanticization of the Indian aside, the importance of this early essay is Thoreau's strong claim about the moral impact of nature. Although this statement clashes with other comments he makes in these classroom exercises (he wrote in another essay a month later that "truth is not exalted, but rather degraded and soiled by contact with humanity"[39]), it is clear the young Thoreau believes that nature is both receptive to humans, if they will only be open and sensitive to it, and of the greatest possible moral benefit to them as well.

A second theme from Thoreau's college years appears in his classbook autobiography, where he takes great pride in the revolutionary heritage of his native Concord. "I shall ever pride myself upon the place of my birth—may she never have cause to be ashamed of her sons."[40] It is these two commitments—to both the systematic study of nature as a moral project and the maintenance of the revolutionary tradition of Concord—that are combined and developed as the central ideas of *Walden*.

Thoreau is careful to inform the reader that he retreated to Walden Pond on the Fourth of July 1845, although he claims the date of his move was an "accident."[41] He tells us that he came to Walden Pond to learn from nature,[42] and the overarching theme of the book is the contrast between the lessons that he discovers there and the society he finds around him in Massachusetts. In the contemporary world, he writes, "shams and delusions are esteemed for soundest truths, while reality is fabulous. If men would steadily observe realities only, and not allow themselves to be deluded, life, to compare it with such things as we know, would be like a fairy tale and the Arabian Nights' Entertainments."[43] The nature found at Walden Pond represents the reality that is the key to attacking the superficiality of American society—a superficiality that in turn leads to the misery of lives lived in "quiet desperation."[44] Nature is also the reality that enables Thoreau to condemn what he sees as the corruption of American patriotism. In the conclusion to *Walden*, he writes that "every man is the lord of a realm beside which the earthly empire of the Czar is but a petty state, a hummock left by the ice. Yet some can be patriotic who have no *self*-respect, and sacrifice the greater to the less. They love the soil which

makes their graves, but have no sympathy with the spirit which may still animate their clay. Patriotism is a maggot in their heads."[45]

Thoreau is not withdrawing from society simply to find personal comfort and respite in nature. Rather, his project is that of the political radical and social critic, and the move to his cabin in the woods gives him the appropriate vantage point from which to criticize the American society that has betrayed whatever was good and noble in its revolutionary tradition. "I delight to come to my bearings—not walk in procession with pomp and parade, in a conspicuous place, but to walk even with the Builder of the universe, if I may—not to live in this restless, nervous, bustling, trivial nineteenth century, but stand or sit thoughtfully while it goes by. What are men celebrating?"[46] Thoreau took his bearings from the woods—first, to contemplate those things his society was "celebrating," and then to convey what he learned to his fellow citizens.

Just what is it that Thoreau discovers from this experience with nature? Implicit in these excerpts is perhaps the principal lesson: that nature teaches a different, truer, and more significant moral reality than that found in contemporary society. "We are acquainted with a mere pellicle of the globe on which we live. Most have not delved six feet beneath the surface, nor leaped as many above it. We know not where we are. Besides, we are sound asleep nearly half our time. Yet we esteem ourselves wise, and have an established order on the surface."[47] The knowledge found in society is scientific and utilitarian, while the truths found in nature have a deeper essence. In "A Natural History of Massachusetts," Thoreau writes about the wisdom gained from being open to nature: "We do not learn by inference and deduction and the application of mathematics to philosophy, but by direct intercourse and sympathy. It is with science as with ethics—we cannot know truth by contrivance and method; the Baconian is as false as any other, and with all the helps of machinery and the arts, the most scientific will still be the healthiest and friendliest man, and possess a more perfect Indian wisdom."[48]

The wisdom acquired from the "direct intercourse and sympathy" with nature is not only an alternative to the methods of knowing and thinking found in commercial society, but stands as a direct challenge to them. Modern science is blindly utilitarian, wedded to the machine, commerce, and material progress. At its extreme, science has

lost touch with its moral basis and thus leads society away from the life taught by nature. In a review of a book by a utopian Fourierist, Thoreau writes, "How little do the most wonderful inventions of modern times detain us. They insult nature." Reflecting the temper of modern society, the "chief fault of this book is, that it aims to secure the greatest degree of gross comfort and pleasure merely" and so distracts humankind from the moral task of living good lives.[49] If people were more in sympathy with nature, they would discover that the basic needs of human life are relatively easily provided for: "Nature is as well adapted to our weakness as to our strength."[50] This existence would also free them to develop a greater human wisdom than that found in the mere caring for material needs and pleasures.

The aim of this wisdom is not simply to become more "natural," but actually to overcome the sensuality of nature. "He is blessed who is assured that the animal is dying out in him day by day, and the divine being established. . . . Nature is hard to be overcome, but she must be overcome. What avails it that you are Christian, if you are not purer than the heathen, if you deny yourself no more, if you are not more religious?"[51] Nature teaches values and wisdom of a higher order than the sensualism and utilitarianism that thrive in commercial society. In nature are found the "higher laws."

A life tutored by these higher laws contrasts with American society in two substantive ways. The first is in simplicity of lifestyle. "Our life is frittered away by detail. . . . Simplicity, simplicity, simplicity! I say, let your affairs be as two or three, and not a hundred or a thousand; instead of a million count half a dozen, and keep your accounts on your thumb nail."[52] The United States, of course, has taken exactly the opposite course: "The nation itself, with all its so-called internal improvements, which, by the way are all external and superficial, is just such an unwieldy and overgrown establishment, cluttered with furniture and tripped up by its own traps, ruined by luxury and heedless expense, by want of calculation and a worthy aim, as the million households in the land; and the only cure for it as for them is in a rigid economy, a stern and more than Spartan simplicity of life and elevation of purpose."[53] Modern life yields luxury and comfort, and in doing so it creates needless complexity and personal dissatisfaction. In addition to individual alienation, commercial culture produces among citizens an inevitable material inequality, extremes of wealth and indi-

gence.[54] Thoreau, however, has learned from nature to limit himself to simple and more substantial things, "for my greatest skill has been to want but little."[55] With the unhappiness and economic divisions produced by the "incessant business" of contemporary society, a host of unnecessary social conflicts emerge.[56] Thoreau suggests, with characteristic exaggeration, that in a simpler society crime itself would become rare: "I am convinced, that if all men were to live as simply as I then did, thieving and robbery would be unknown."[57] Nature teaches appropriate human wants, and supplies the means by which they can be satisfied. The symptoms of discord, alienation, and meaningless activity in society are indicative of the degree to which the nation has strayed from the simplicity taught by nature.

The second way nature's instruction differs from the attitude of contemporary society is in a sense of humility and proportion. Consider, for example, Thoreau's discussion of his experience of solitude at Walden: "I was suddenly sensible of such sweet and beneficent society in Nature, in the very pattering of the drops [of rain], and in every sound and sight around my house, an infinite and unaccountable friendliness all at once like an atmosphere sustaining me, as made the fancied advantages of human neighborhood insignificant, and I have never thought of them since."[58] Thoreau obviously did not cease to think about the "human neighborhood" as a result of this experience; *Walden* itself is testimony against this claim. What Thoreau is suggesting is that solitude in nature allowed him to understand the greater context of the natural world, to see human society in proper perspective. This is also his point when he argues that "we need to witness our own limits transgressed."[59] Human arrogance, illustrated by American society's commitment to luxury and progress, needs to be tempered by the experience of natural limits. To understand the superiority of the natural world and the moral context it provides for human society is to understand the appropriate possibilities for such a society. Because American society has become deaf to the teachings of nature, it struggles incessantly to fashion the world after its own image. Its hubris produces the unhealthy, alienated, restless society Thoreau describes. Americans should learn that "humility like darkness reveals the heavenly lights."[60]

To return to our original question, Thoreau believes that "in Wildness is the preservation of the World" because of the potentially edu-

cative and moral influence of nature on individuals and, ideally, on society as a whole.[61] In contrast to the flourishing commercial society of nineteenth-century America, nature offers a different way to wisdom than science does, an alternative to the compulsive and alienating world of a market economy, and a context for a society to comprehend its true limitations and thus its true potential. Nature has the potential to tutor not only the philosopher, but also the nation as a whole. It teaches the higher laws to which a genuine American patriot and revolutionary must appeal, and these laws provide the vantage point for criticizing both the superficiality and the downright evils of American society. It is the foundation on which a truer justice can be built. When Thoreau turned to nature, he did so not only to find solitude and comfort in an uncomfortable world, but also to discover the means by which he could judge the values of contemporary society. And although Thoreau never provides a detailed vision of a society wholly driven by the lessons of nature, his work challenges us to think of this as our primary political task.

Gifford Pinchot was the first professional forester in the United States and a central figure in the political affairs of the Progressive period. He was one of Theodore Roosevelt's most trusted and influential advisers, during his presidency as well as the creation of the Bull Moose Party in 1912. In 1896 he was appointed chief of the Forest Commission (later the Forest Service), and he served in that capacity until 1910. He vigorously pursued the scientific management and conservation of U.S. forests, and under his leadership the National Forest system was established. Pinchot is rightly considered the founding giant of twentieth century conservationism and natural resource management, and his views still carry weight today, particularly within the forestry profession. Although he served two terms as governor of Pennsylvania (1923–27; 1931–35), he regarded himself first and foremost as a forester and conservationist, which is apparent throughout his autobiography, *Breaking New Ground*.

There is perhaps no other figure from the Progressive Era who more completely embodies the political values and commitments of this period. Pinchot's writings are full of Rooseveltian "trust-busting" rhetoric—arguments for the public regulation of the economy in order to

maintain economic opportunity for all in the face of threats by concentrated capital and the modern business corporation—and pleas for clean and efficient government backed by a strong ethic of honest bureaucratic public service. All of these elements, commonplace in the writings of the age, find complete, almost stereotypical expression in Pinchot's work.

Pinchot's unique contribution to this period was his commitment to the conservation of natural resources and the degree to which he viewed this as the core of the Progressive agenda. He opens *The Fight for Conservation* with the claim that "the conservation of natural resources is the basis, and the only permanent basis, of national success. There are other conditions, but this one lies at the foundation."[62] American prosperity and liberty are themselves premised on the abundance of nature, and thus any progressive and farsighted political program must begin with the protection of this natural bounty. "The planned and orderly development and conservation of our natural resources is the first duty of the United States."[63]

In his autobiography, Pinchot acknowledges the importance of George Perkins Marsh to the development of his own thinking, referring to Marsh's 1864 *Man and Nature* as an "epoch-making book."[64] The work is indeed remarkable as an early and sophisticated statement of ecological principles that would not become widely discussed and accepted until well into the second half of the twentieth century. Observing the degree to which human society disrupts and transforms natural ecosystems, not only in his native Vermont but worldwide, Marsh concludes that "man is everywhere a disturbing agent. Wherever he plants his foot, the harmonies of nature are turned to discords."[65] In fact, the degree of destruction of ecosystems caused by the reckless use of natural resources is potentially a menace to civilization and the earth itself. "The earth," Marsh observes, "is fast becoming an unfit home for its noblest inhabitant, and another era of equal human crime and human improvidence, and of like duration with that through which traces of that crime and the improvidence extended, would reduce it to such a condition of impoverished productiveness, of shattered surface, of climatic excess, as to threaten the depravation, barbarism, and perhaps even extinction of the species."[66]

In Marsh's view, the threats to the environment are caused by three factors. First, there is too little understanding of natural processes and

the relationships that keep nature in balance. We have been too insensitive to the ways in which "all nature is linked together by invisible bonds."[67] Much more attention must be given to these linkages, and this will only occur by following Marsh's own lead in studying ecological relationships and the human connection to them. "If man is destined to inhabit the earth much longer, and to advance in natural knowledge with the rapidity which has marked his progress in physical science for the last two or three centuries, he will learn to put a wiser estimate on the works of creation, and will derive . . . great instruction from studying the ways of nature in her obscurest, humblest walks."[68] Closer scrutiny of the links between "man and nature" is a prerequisite not only for preventing the future deterioration of nature, but for maintaining human prosperity as well.

Second, the attitude toward the earth that is usually exhibited by civilization must change. "Man has too long forgotten that the earth was given to him for usufruct alone, not for consumption, still less for profligate waste."[69] Marsh scolds society for forgetting that "the command of religion and of practical wisdom" is "to use this world as not abusing it."[70]

Third, Marsh believes that one of the institutions most guilty of flagrant disregard for nature is the modern business corporation. He refers to the "rottenness of private corporations" and attacks them as immoral and corrupt.[71] By pursuing profits with such single-minded disregard for other values, these enterprises pose a potentially disastrous threat to the environment.

Marsh is guardedly optimistic that all of these problems can be overcome. Improving knowledge of and attitudes toward nature can be accomplished through works such as his own. The business corporation can be checked by strict government regulation and control.[72] More generally, as sensitivity toward nature increases, Marsh believes that people can become "coworkers" with nature and reestablish the harmonies that exist spontaneously.[73] A full understanding of ecological processes may be beyond human reach, yet people might come to know enough about such processes to cease being destructive agents.

> The equation of animal and vegetable life is too complicated a problem for human intelligence to solve, and we can never know how wide a circle of disturbance we produce in the harmonies of

> nature when we throw the smallest pebble into the ocean of organic life. This much, however, we seem authorized to conclude: as often as we destroy the balance by deranging the original proportions between different orders of spontaneous life, the law of self preservation requires us to restore the equilibrium.[74]

For example, some resources, such as the forests, can actually provide greater economic benefits through proper management than through wholesale destruction.[75]

There seems to be a measure of humility in Marsh's claims about the human capacity to completely understand and control natural processes, but this element of Marsh's thought drops away almost entirely in Pinchot's work. Like Marsh, Pinchot is alarmed by the reckless waste and destruction of natural resources. But unlike Marsh, Pinchot has unwavering optimism about the possibility of correcting this problem and, in fact, managing natural resources so as to allow for an almost endlessly increasing American prosperity. "The object of practical forestry is precisely to make the forest render its best service to man in such a way as to increase rather than to diminish its usefulness in the future."[76] Pinchot agreed with Marsh about the dangers of unregulated exploitation of nature, and he acted on Marsh's claim that natural resources must be protected and managed in the long-term public interest. In fact, as Stephen Fox has written, "in his own person Pinchot embodied the transition from amateur protection to scientific management" of natural resources.[77]

Samuel Hays, in his distinguished historical study of progressive conservationism, argues that it was a political movement fundamentally scientific and technocratic in character. Hays notes that "conservation, above all, was a scientific movement, and its role in history arises from the implications of science and technology in modern society. . . . Its essence was rational planning to promote efficient development and use of all natural resources. . . . It is from the vantage point of applied science, rather than of democratic protest, that one must understand the historic role of the conservation movement."[78] The evidence for viewing Pinchot in this light is certainly great. In all of Pinchot's writings on conservation and forestry, the emphasis is the same as in his opening sentence of *A Primer of Forestry*: "The object of forestry is to discover and apply the principles according to which for-

ests are best managed."[79] Elsewhere he refers to forestry as "tree farming" and to the forest as "strictly . . . a factory of wood," and for him the task is to manage these forests for "continuous production."[80] Thus, efficiency and productivity become the highest values to be pursued, and these are achieved through the same type of scientific management that was currently being developed in industrial production. The key to success, therefore, rested with the training and employment of dedicated public servants like himself, who understood both the economy and the ecology of natural resources.

Despite these scientific and administrative elements, however, it would be a mistake to label Pinchot as simply an apolitical technocrat and to think of his view of conservation as managerial only. At the heart of his conservationism is a commitment to a particular understanding of democratic equality and liberty, which is synthesized in his conception of equality of opportunity.

> I stand for the Roosevelt policies because they set the common good of all of us above the private gain of some of us; because they recognize the livelihood of the small man as more important to the Nation than the profit of the big man; because they oppose all useless waste at present at the cost of robbing the future; because they demand the complete, sane, and orderly development of all our natural resources; because they insist upon equality of opportunity and denounce monopoly and special privilege; . . . and, most of all, because in them the plain American always and everywhere holds the first place.[81]

For Pinchot, the conservation of natural resources is of fundamental democratic value because it allows for the possibility of equality of opportunity for all citizens. Such equality is defined not so much as access to political participation or power than as access to at least a minimal level of material comfort and prosperity. "The single object of the public land system of the United States . . . is the making and maintenance of prosperous homes."[82] Liberty, in turn, is thought of by Pinchot as the ability to pursue and enjoy this material equality. Dwight Waldo's observation about the political commitments of twentieth-century American public administration could have been directed specifically at Pinchot: "Students of administration, it is clear, are in-

clined to a large, if indefinite, degree of equality—at least in the enjoyment of material things. Equality is probably the chief ingredient of their sense of justice. . . . Writers on public administration have less frequently spoken in terms of liberty, not because they regard it as less important than equality, but because they find the essence of liberty to lie in equality itself."[83] For Pinchot, as well as for the broader tradition of public administration that grew out of the Progressive Era, democratic liberty and equality are primarily problems of material comfort and individual utility. "Conservation is a moral issue because it involves the rights and duties of our people—their rights to prosperity and happiness, and their duties to themselves, to their descendents, and to the whole future progress and welfare of this nation."[84] It is in this sense that Pinchot regards conservation as a fundamentally democratic movement, and he never lost sight of this Progressive vision.

Pinchot's "fight for conservation," then, was actually a fight to protect equality of opportunity for the "plain" citizen from the privilege of wealth and corporate power. "Equality of opportunity is the real object of our laws and institutions,"[85] and there are no laws and institutions of greater importance for achieving this goal than those concerned with the conservation of natural resources. Given this underlying political purpose, it is clear that Grant McConnell has captured better than Samuel Hays the essential qualities of early conservationism. As he observes, "To an important degree . . . the conservation movement of the first part of the century was Progressivism itself . . . it was the realization in political form of a delusively simple idea, that of equality."[86] Scientific management is the means, but democratic equality is the end, of Pinchot's conservationism.

This commitment to democratic equality informs what Pinchot outlines as the three principles of conservation. First, conservation is dedicated to "development, the use of the natural resources now existing on this continent for the benefit of the people who live here now." The second principle is the prevention of unnecessary waste. Third, "natural resources must be developed and preserved for the benefit of the many, and not merely for the profit of the few."[87] Pinchot thus views nature in utilitarian terms, but utility is defined by Pinchot's commitment to distributive justice, which, in turn, is essen-

tial for political equality. "Conservation," he writes, "is the most democratic movement this country has known for a generation."[88]

Pinchot believes that conservation provides not only the means by which the prosperity of a democratic order is maintained and promoted, but also a guide for a new ethic of public service. "The opportunity to set a new standard in political morality is here now."[89] Although there has been and continues to be an "unholy alliance" between business and government in American politics,[90] the standard set by his own Forest Service in the management of the nation's affairs offers a new model for democratic government. "The national housekeeping, the Government's vast machinery, should be the cleanest, the most effective, and the best in methods and in men, for its touch upon the life of the Nation at every point is constant and vital."[91] Efficient management goes hand in hand with the development of high standards of honest, professional bureaucratic responsibility.

Yet the goal of clean, efficient, nonpartisan government service can collide with the utilitarian sensibilities that Pinchot articulates as the guiding principles of conservation. On the one hand, Pinchot defends a patriotic vision of public service aimed at the public good rather than personal considerations of material gain and loss.[92] On the other, he presents a program of forestry premised on economic benefits. In the opening pages of *Breaking New Ground*, Pinchot relates the advice given to him when he was a student of scientific forestry in Europe after his graduation from Yale. One of his teachers in France instructed him to go home to America and "manage a forest and make it pay."[93] Pinchot was very proud of his first success at this task, managing the forest on George W. Vanderbilt's Biltmore estate in North Carolina. The conclusion Pinchot draws from this experience is that "in the long run forestry cannot succeed unless the people who live in and near the forest are for it and not against it."[94] In order to convince these people, it is essential to demonstrate that forest conservation is not only good for the forest, but good for business as well.

Pinchot does not appear to be uncomfortable with the fact that he appeals to two separate, and perhaps at times incompatible, sets of values. Public servants are to be motivated by high patriotic ideals, while they are to use the market as the incentive for society to support their policies. Pinchot is confident that the two goals can be synthesized—that forests can be managed economically and ecologically,

and that public servants will not become corrupted by the market values they employ to promote their policies.[95]

A related tension is found in the attitude that Pinchot advocates toward nature generally. Pinchot appears to be somewhat ambivalent about his utilitarianism, but in the end he considers his position practical and even brave. Contrasting his own work with that of early protesters against the rapaciousness of the lumber industry, Pinchot writes, "Their eyes were closed to the economic motive behind true Forestry. They hated to see a tree cut down. So do I, and the chances are that you do too. But you cannot practice Forestry without it. Naturally the lumber juggernaut rolled over them—rolled over them and went on its forest-devastating and home-building way without even paying them the tribute of serious attention."[96] Pinchot here recognizes that there may be other values in the forest than simple economic ones; trees may be prized for some quality besides their usefulness as lumber, and he clearly is sympathetic, on a personal level, to this sensibility. In fact, when one reads through the stories that Pinchot tells of his travels and experiences in the nation's forests, it is apparent that he found a great deal of intrinsic and aesthetic value in the natural world. Nonetheless, there is no place for these sentiments in the context of the political and economic realities of American life. Referring to those who resisted the "lumber juggernaut" as "denudatics," he says, "I could not join the denudatics, because they were marching up a blind alley."[97] He, in contrast, is going to blaze new ground, which actually takes a good deal more imagination and courage than simple moral outrage or protest. "The job was not to stop the ax, but to regulate its use."[98] The denudatics are as guilty as the lumber industry of not looking to the future and developing a workable political plan to handle current and future needs for natural resources. Pinchot's utilitarian attitude toward natural resources was a strategic choice, made to assure the political viability of conservation. But it required the adoption of an economic view of nature and the acceptance of the primacy of economic values in American life.

Although Pinchot is at great pains to present "the fight for conservation" as the foundation of a new sensibility toward both the nation's natural resources and democratic public service, in the end he is forced to cater to, rather than challenge, the values that gave rise to

the exploitation of the forests, and nature generally, in the first instance. Pinchot does not find this to be an unsatisfactory compromise because he believes that if natural resources are properly managed, there is no reason to fear for either the continued abundance of American society or the health of the natural world. The threat to natural resources comes from a lack of, or poor, public regulation. If, however, public management is honest, efficient, and well informed, American prosperity as well as environmental integrity will be assured. Thus, Pinchot is never forced to confront any conflict between the needs of the natural environment and his own values of scientific management, patriotic public service, and utilitarian materialism. In his view, a stark choice between American materialism and the protection of nature can be avoided by using the tools of scientific management. His utilitarian conservationism is a compromise that allows for both abundance and the safeguarding of nature.

Pinchot's view of nature, then, has a number of crucial characteristics. First, nature exists primarily for the sake of human prosperity. Humanity's privileged position, however, entails great responsibility: "The first duty of the human race is to control the earth it lives upon."[99] The purpose of the conservation movement is to establish the principles and institutions necessary for this duty. "The great fundamental problem which confronts us all now is this: Shall we continue, as a Nation, to exist in well-being? That is the conservation problem."[100] Since nature exists for the sake of human welfare, the protection of nature is required less because of its intrinsic value than because of moral obligations we owe to ourselves, our fellows, and future citizens. This entire vision is built on a political program that holds nature and natural resources to be fundamentally important for achieving the goals of political equality and liberty. "The conservation of political liberty will take its proper place alongside the conservation of the means of living."[101] Pinchot's genius and political success lay in the manner in which he wedded his concern for nature to his belief and participation in Progressive politics.

The contrasts between Thoreau and Pinchot are striking and obvious. Thoreau was a rebel, an outsider, and one of the most forceful and (over time) influential critics of American society. Pinchot was a classic

political insider, a reformer as well as a champion and defender of his society. Thoreau's most profound writings about nature were produced when he retreated to the periphery of American society, while Pinchot's work grew out of a lifetime of public service and intimate contact with political power.

Thoreau's pastoral environmentalism has a crucial and often overlooked political core. Certainly he looked to nature as the source of intellectual inspiration and personal satisfaction in a banal, crude, and immoral world. But beyond this, he found that nature provided him with the means to criticize American politics and society and to imagine a more just political order. In nature, he believed, a person experiences the independence and the humility that are necessary for building and sustaining a moral, free, and democratic community. It was his pastoral environmental political theory that informed his censure of his fellow citizens ("O for a man who is a *man*, and, as my neighbor says, has a bone in his back which you cannot pass your hand through!"[102]) as well as his praise for the simple town-meeting democracy of farmer and villager, which compared so favorably to the corruption of city and national politics: "When, in some obscure country town, the farmers come together to a special town meeting, to express their opinion on some subject which is vexing the land, that, I think, is the true Congress, and the most respectable one that is ever assembled in the United States."[103] Nature supplied Thoreau with the principles he needed to ground both his social criticism and his vision of a more equitable America. For this better nation to exist, people must listen to the lessons of nature rather than the clattering of commercial society.

Pinchot, no less than Thoreau, viewed nature from an essentially political perspective, but there the similarity between the two men ends. For Thoreau, nature provided values essential to the criticism of a potentially just but presently corrupt society; for Pinchot, nature furnished the material resources needed to sustain an already basically just political order. While he disapproved of the excesses of American capitalism and feared its corrupting influence on government, he nonetheless believed there were viable solutions: The threats to natural resources could be alleviated through scientific management, and the dangers of political abuses could be controlled through the elimination of corruption and the patriotic appeal to con-

ventional American values as a guide for public servants. What for Thoreau was the latent moral and spiritual foundation of American society was for Pinchot its material base and resource.

Thoreau's pastoralism was politically radical, but it was also politically weak—the result of its radicalism and Thoreau's chosen position as an outsider in American society. He inspired no political movement, nor did he wish to do so (at least in any ordinary sense). Pinchot's progressive conservationism was politically influential largely because of its linkage to traditional and widely held political values. The weakness of Thoreau's overall political clout reflects the strength and power of his radical criticism; his appeal to nature is a direct challenge to conventional American values. The broad political popularity of Pinchot's conservationism, on the other hand, reflects the success with which he tied his material and instrumental concept of nature to democratic politics and a particular democratic vision.

As mentioned at the outset, many current discussions of environmentalism tend to divide the contemporary literature into two opposing camps, the anthropocentric and the biocentric. To the former, environmental values are ultimately grounded in concerns about human goods and interests, and so environmental protection, conservation, and even wilderness preservation are justified in terms of their importance for human welfare. To the latter, there are intrinsic values in at least some aspects of the natural world that are independent of human goods—and perhaps of even greater importance than human welfare—and these elements must be protected and respected for their own sake.

This environmental ethics debate is not very useful for understanding the origins of American environmental political thought. It would be possible, for example, to regard Thoreau as biocentric, and Pinchot as anthropocentric. Although there are certainly biocentric messages in Thoreau's nature writings, on the whole the emphasis is on the educative benefits of nature for human welfare. As Bill McKibben observes, "It is curious . . . just how little description of nature *Walden* contains."[104] Likewise, Pinchot developed strongly anthropocentric arguments to support his program of conservation. Yet he also appears to have been personally sensitive to the intrinsic goods of nature. Nash in fact writes that Pinchot "selected forestry as a career because

it involved contact with the outdoors," which he cherished throughout his life.[105]

The current debate between anthropocentrism and biocentrism, therefore, misses the crucial issues at stake between these two theorists. Ultimately, Thoreau's pastoralism and Pinchot's progressivism do not part company over the appropriate conception of nature abstractly considered, but rather over the appropriate understanding of American political life and values and the role of nature in this political life. If the political element in their thought is ignored, much of the moral and intellectual power of their respective visions is lost. If we remove the social and political criticism from Thoreau's writings about nature, we are left only with an alienated naturalist—and we will fail to grasp what initially drove Thoreau to Walden Pond. If we remove the vision of Progressive democracy from Pinchot's work, we are left merely with the scientific management and control of natural resources for no other purpose than brute human survival—a much lower aim than the commitment to democratic equality that actually animates his writings. The importance of Thoreau and Pinchot for understanding American environmental thought is that for both theorists, environmental thought was essentially political thought. As such, their works represent two competing paradigms—the pastoral and the progressive—for American environmental political theory.

2

Scarcity beyond Inefficiency: Neo-Malthusian Fears

> You will see how dearly nature makes us pay for the contempt with which we have treated her lessons.
>
> —*J. J. Rousseau*

Gifford Pinchot's progressive conservationism was based on a crucial technical claim: Natural resources, if properly managed, are for all practical purposes limitless. The threats posed to nature by contemporary society, and the possible scarcity of resources that could result from these threats, are caused by needless waste, poor administration, and the squandering of natural resources for short-sighted private gain. Scientific public management would assure in perpetuity the availability of the resources required for an expanding economy and a liberal democratic society.

Pinchot's optimistic views about the abundance of natural resources provided him with the link between scientific management and democratic politics. Not only would public management produce the necessary material basis of democratic society, but it would actually promote democratic values by setting an example of patriotic public service. As Grant McConnell has pointed out, however, the mass appeal of Pinchot's conservationism died with the end of Progressive politics. The popularity of the program had hinged on its championship of democratic equality, but that banner now shifted to other movements (particularly the labor movement).[1] (Even so, Pinchot's views have remained influential within the professional ranks of public servants and foresters, primarily in the doctrine of multiple use for public lands.[2])

By the late 1960s and early 1970s, nagging concerns began to emerge about the increasing severity and intractability of problems of

scarce resources. New conditions threatened to destroy the bridge that Pinchot had built between the conservation of natural resources and a political program that fostered democratic equality. As fear about limited, even shrinking, natural resources became more intense, the connection between environmental conservation and liberal democratic politics was for some theorists strained to the breaking point.

Alarm about natural resource scarcity, and perhaps even the depletion of some essential resources, was originally raised to a wide popular audience by two scientists, Garrett Hardin and Paul Ehrlich, both of whom focused on the dangers of world population growth. In 1968, Hardin published his famous paper, "The Tragedy of the Commons," in which he concludes that the "freedom to breed will bring ruin to all."[3] Hardin develops this thesis by discussing the problem of a "commons," or pasture used in common by independent farmers. The land is capable of serving a limited number of cattle, beyond which it will become depleted. Yet each individual farmer has a personal incentive to graze as many animals as possible, and each addition only adds a seemingly insignificant burden to the pasture. However, since each farmer has the same incentive to add more cattle to the commons, an inevitable strain will be put on the land. Thus, the collective interests of the farmers as a whole come into conflict with the private interests of each. The result is the eventual overgrazing and ruin of the commons.

Hardin argues that this simple case is analogous to the problem of population growth. As long as having children is a matter of private choice, individual families may have personal incentives to maximize their number of offspring. Each additional child encumbers only slightly the overall resources, or "commons," of a community, nation, or region. As in the case of the pasture, however, population growth puts pressure on collective resources. The result, again, is that the collective resources of the community are overstrained by the personal choices of its members. The only solution for this problem is some form of collective control over the private behavior of individuals. Thus, the collectivity must be responsible for regulating the use of collective resources, since it is ruinous to allow individuals to make private and independent resource decisions concerning common goods. Hardin argues that in situations fitting the commons model, appeals

to personal conscience and private responsibility are simply incapable of solving the problem.[4] What is needed is coercion, preferably coercion that is "mutually agreed upon by the majority of the people affected."[5] Although Hardin concedes that such coercion may cause injustice to some (by limiting their right to have children), he believes that the other options are unacceptable: "Injustice is preferable to total ruin."[6] Because he contends that population growth is currently threatening to overrun the international base of natural resources, Hardin urges that reproductive decisions be removed from private control and placed in the hands of a public authority. In a later work he concludes that "the community, which guarantees the survival of children, must have the power to decide how many children shall be born."[7]

Hardin's analysis was triggered by the United Nations' claim that there is a natural human right of reproduction that must be respected by the international community.[8] His rejection of such a right is based not only on the hypothetical possibility of the depletion of "the commons," but on his belief that empirical evidence already indicates that such a tragedy is occurring and increasing in gravity.

This empirical claim was most forcefully asserted in Paul Ehrlich's best-selling book, *The Population Bomb*, published in the same year as "The Tragedy of the Commons." Ehrlich's argument is simply that Malthus was correct: Population growth will increase geometrically, while agricultural production will at best increase arithmetically. Thus, eventually (and perhaps in the very short term) population will grow well beyond our capacity to supply food for multiplying numbers of people. "We already know that it is impossible to increase food production enough to cope with continued population growth."[9] In fact, the imbalance between population and food supply is already upon us. Ehrlich is convinced that the world, especially the underdeveloped world, is rapidly running out of food,[10] and that mass starvation in the very near future is inevitable.[11] Put baldly, "There is not enough food today,"[12] and this crisis promises only to intensify. But this is not the worst of it, according to Ehrlich. All of the significant environmental problems in the contemporary world can be traced to the pressure exerted on the environment by human overpopulation,[13] and the resultant pollution will only exacerbate and compound the immediate hardships caused by population growth.

The political implications of Hardin and Ehrlich's neo-Malthusianism are ominous but not highly developed in their own works. As noted, Hardin is sensitive to the fact that his analysis of the commons implies the need for a solution based on coercion and the limitation of individual choice. However, his formulation of the nature of this coercion has a democratic component: It is to be mutually agreed upon by at least a majority of individuals. Nonetheless, he clearly believes that individual choices about childbearing should no longer be respected as personal liberties. Population control is possible only if people surrender the freedom to make private reproductive decisions.

Ehrlich, too, believes that the "cancer of population growth"[14] can be controlled only through what the uninitiated might think are inhumane or even draconian policies. Internationally, the United States must put maximum pressure on developing countries to curb their population growth by tying foreign aid to successful population programs. Here Ehrlich follows the proposals made by William and Paul Paddock in *Famine 1975!* The Paddocks recommend a policy of "triage," modeled on medical practices developed for combat situations. This program would divide the countries of the developing world into three categories: those that cannot be saved (that is, control their population growth to the degree necessary to allow for economic self-sufficiency), those that can be saved with appropriate incentives and aid, and those that will survive without American assistance. The United States must break foreign aid relationships with the first category of nations and concentrate efforts on the second. As Ehrlich grimly observes, "The operation will demand many apparently brutal and heartless decisions. The pain may be intense. But the disease is so far advanced that only with radical surgery does the patient have a chance of survival."[15]

Domestically, Ehrlich advocates the creation of a "Federal Department of Population and Environment" with "the power to take whatever steps are necessary to establish a reasonable population size in the United States and to put an end to the steady deterioration of our environment."[16] Although Ehrlich does not specify the relationship of this department to other political institutions or to constitutional requirements, it is clear that he believes it should have far-reaching powers and authority. For example, he suggests that it should investigate the possibility of placing contraceptive chemicals in water sup-

plies.[17] In addition, tax policy should be designed to discourage large families,[18] and educational resources must be used to "bring home to all the American people the reality of the threat to their way of life—indeed to their very lives."[19] Although his proposals for the domestic control of population are not as extreme as those for international policy, Ehrlich is convinced that the population problem is critical enough to overwhelm traditional commitments to democratic institutions or individual rights.

In the wake of the energy crisis of the early 1970s, Robert Heilbroner joined this neo-Malthusian chorus in his book, *An Inquiry into the Human Prospect*. Heilbroner examines the political problems raised by natural resource constraints in more detail than either Hardin or Ehrlich do. Heilbroner's focus is not only on population pressures, but on what he sees as increasing natural checks on industrial production. Both major economic systems in the contemporary world, capitalist and socialist, share a similar industrial base and commitment to the "productive virtuosity" that drives expanding economies.[20] Both are confronted, however, with a future in which economic growth will become more and more difficult if not impossible. This is due to the growing scarcity of the natural resources needed to fuel these economies, and to the environment's limited ability to absorb the ecological damage they inevitably produce. Heilbroner writes that "what portends, in the longer run, is a challenge of equal magnitude for industrial socialism as for capitalism—the challenge of drastically curtailing, perhaps even dismantling, the mode of production that has been the most cherished achievement of both systems."[21] Industrial growth must slow down or even come to a halt within the next generation or two.[22] "Ultimately there is an absolute limit to the ability of the earth to support or tolerate the process of industrial activity, and there is reason to believe that we are now moving toward that limit very rapidly."[23]

Heilbroner predicts not simply economic and technical repercussions, however. There is cause to believe that contemporary societies will be politically unable to manage the disruptions that will likely be generated by these changes. Distributive justice in an expanding capitalist economy, for example, has traditionally been achieved by augmenting the economic benefits to all sectors of society, rather than by redistributing income. If economic growth ceases this option will

no longer exist. "A stationary capitalism is thus forced to confront the explosive issue of income distribution in a way that an expanding capitalism is spared."[24] As the struggle for material resources becomes a zero-sum competition, the strain on American political institutions will become intolerable: "Candor compels me to suggest that the passage through the gauntlet ahead may be possible only under governments capable of rallying obedience far more effectively than would be possible in a democratic setting. If the issue for mankind is survival, such governments may be unavoidable, even necessary."[25]

Although Heilbroner is unhappy with his own conclusions—he points out that his thesis is contrary to both his personal interests and his democratic socialist values[26]—he believes that the future holds little hope for representative democratic institutions in the face of the changes that environmental limits will impose on capitalist economic systems and society.

> For the majority of capitalist nations . . . I do not see how one can avoid the conclusion that the required transformation will be likely to exceed the capabilities of representative democracy. . . . The likelihood that there are obdurate limits to the reformist reach of democratic institutions within the class-bound body of capitalist society leads us to expect that the governments of these societies, faced with extreme internal strife or with potentially disastrous social polarization, would resort to authoritarian measures.[27]

Future American society will probably be less individualistic and libertarian, and it will require new ideologies and institutions of social cohesion to contend with the stresses of social change. "The order that comes to mind as most likely to satisfy these requirements is one that blends a 'religious' orientation with a 'military' discipline. Such a monastic organization of society may be repugnant to us, but I suspect it offers the greatest promise of making those enormous transformations needed to reach a new stable socio-economic basis."[28]

Compared with Hardin and Ehrlich, Heilbroner seems more sensitive to, even appalled by, the types of changes he believes are unavoidable, given environmental constraints. Even so, all three writers use

neo-Malthusian language to assert the inability of liberal democratic institutions to cope with the environmental problems confronting us. All see American society, indeed the international community, as facing a bleakly Hobbesian future. As the struggle for scarce resources intensifies, which they predict it must, the solution (if there is one) is most likely to be found in authoritarian political institutions capable of enforcing peace and managing the environment successfully. Like Pinchot, these theorists believe that public management of resources is required for the maintenance of society. Unlike Pinchot, they believe that since these resources are becoming increasingly scarce—potentially to the point of catastrophe—this management cannot complement democratic equality. In fact, because of the hardships that scarcity will create, environmental management will be forced to become more dictatorial in order to assure simple survival. Environmental scarcity, for these authors, has cut the feet out from under the political program of progressive conservationism.

The one major work to develop the implications of this neo-Malthusian literature for political theory is William Ophuls's *Ecology and the Politics of Scarcity*. Ophuls, too, is convinced that the age of material abundance is coming to a close. "Ecology is about to engulf economics and politics, in that how we run our lives will be increasingly determined by ecological imperatives."[29] The new science of ecology, punctuated by the experience of the energy crisis of 1973–74, teaches that "there is only so much the biosphere can take and only so much it can give, and this may be less than we desire."[30] Drawing on the work of specialists in the areas of pollution, population, food production, and natural resources, Ophuls contends that "an era of ecological scarcity has dawned."[31] Further, he sees a growing consensus among these specialists that a "steady state" economy will inevitably replace current growth-based economies.[32]

Ophuls shares with other neo-Malthusians the belief that ecological scarcity has profound and subversive consequences for contemporary social and political institutions as well as for the theories that inform them. Since modern institutions and political theories are premised on material abundance, they are incompatible with (or perhaps simply irrelevant to) the realities of scarcity: "Virtually all the philosophies, values, and institutions typical of modern society are the luxuriant fruit of an era of apparently endless abundance. The return of

scarcity in any guise therefore represents a serious challenge to the modern way of life."[33]

The first set of institutional problems that Ophuls perceives are economic and technological in character. Ophuls argues that capitalist market economies tend to function anti-ecologically on roughly the same grounds that Hardin outlines in "The Tragedy of the Commons." The exhaustion of resources and the pollution of the environment are both examples of how market relations exacerbate the plight of the commons, threatening to deplete the natural environment. In addition, the technological sophistication of modern industrial production is often achieved at the expense of environmental health. The paradigmatic case here is nuclear power. This particular response to the need for cheap, renewable forms of energy creates enormous problems, such as how to ensure public safety and how to manage nuclear waste. Technologies such as this not only spawn dangerously anti-ecological by-products; they also stretch the competence of bureaucratic management beyond its capacities. As Ophuls observes, "Our ability to achieve the requisite level of effectiveness in planning is especially doubtful. Already the complex systems that sustain industrial civilization are seen by some as perpetually hovering on the brink of breakdown; the computer and other panaceas for coping with complexity appear to have been vastly oversold; and current management styles—linear, hierarchical, economic—appear to be grossly ill adapted to the nature of the problems."[34] Finally, Ophuls, like Heilbroner, believes that all modern economies that are committed to economic growth—capitalist as well as socialist—are simply incapable of persisting indefinitely in the face of economic scarcity and environmental limitations. In short, modern economic institutions are ill suited to confront ecological realities.

American political institutions appear to Ophuls to be equally unable to cope with environmental scarcity. The United States, he argues, has never had a "genuine politics,"[35] by which he means a politics that raises fundamental issues of value and addresses the whole of our social arrangements. Rather, "American political history is but the record of a more or less amicable squabble over the division of the spoils of a growing economy."[36] But as the spoils of this economy diminish, the potential for more significant political conflict emerges. "The political stage is therefore set for a showdown between the

claims of ecological scarcity on the one hand and socioeconomic justice on the other."[37] And Ophuls, like Heilbroner, believes this showdown is probably more than our political institutions, in their present form, can bear: "Our political institutions, predicated almost totally on growth and abundance, appear to be no match for the gathering forces of ecological scarcity. . . . The problems of scarcity that confront the system today are ones that *it was never designed to handle*. Its past virtues are therefore irrelevant; all that matters now are its equally undeniable failings in the face of ecological scarcity."[38] Without an expanding economy, which allows for a broad range of interests to be at least partially accommodated in the political arena, American political institutions will be strained to the breaking point.

The institutional vulnerabilities Ophuls discusses, however, are symptomatic of a deeper fault he finds in the political theory informing contemporary society. Ophuls argues that political theorists, with the notable exception of Malthus, have built their systems on the unexamined assumption of material plenty.[39] Liberalism shares with other modern political theories the "indispensable premise" of abundance.[40] "The liberal ideas of Locke and Smith have not gone unchallenged, but with very few exceptions, liberals, conservatives, socialists, communists, and other modern ideologists have taken abundance for granted and assumed the necessity of further growth."[41] As this premise proves increasingly unreasonable, so the theories that are its offspring become increasingly irrelevant at best, counterproductive at worst. Ophuls fears that as the problem of "the commons" worsens, the promotion of liberal individualism and democracy becomes more problematic. "It hardly need be said that these conclusions about the tragedy of the commons radically challenge fundamental American and Western values. . . . Certainly, democracy as we know it cannot conceivably survive."[42]

Ophuls admits that this is an extreme conclusion, "but it seems to follow from the extremity of the ecological predicament industrial man has created for himself."[43] The individualism on which the commitment to democracy, liberty, and individual rights is based threatens to aggravate the exploitation of the commons. Ophuls believes, in fact, that the environmental crisis not only disputes the competence of contemporary social and political theory but is a moral indictment of it as well. "Indeed, the crisis of ecological scarcity can be viewed as

primarily a moral crisis in which the ugliness and destruction outside us in our environment simply mirror the spiritual wasteland within."[44] The conceptual failure of modern political theory reflects its moral failure to promote ecological values, institutions, and lifestyles.

What political theory, then, is required for the approaching "steady state"? Ophuls claims that his work does not present a full-blown conceptual foundation for such a state, and he promises a more detailed discussion in the future.[45] Nonetheless, on the most general level he believes the tasks ahead, both theoretically and institutionally, are revolutionary in character. "What is ultimately required by the crisis of ecological scarcity is the invention of a new mode of civilization, for nothing less seems likely to meet the challenge."[46] He fully understands that this is an "epochal political task,"[47] requiring the creation of completely new institutions and political theories. It will also probably be accompanied by the instability and turmoil characteristic of all major social upheavals. "The epoch we have already entered is a turning point in the ecological history of the human race comparable to the Neolithic Revolution; it will inevitably involve racking political turmoil and an extraordinary reconstitution of the reigning political paradigm throughout most of the modern world."[48]

In fact, despite his disclaimer, Ophuls does discuss in some detail the necessary components of a political theory of the steady state—or rather, he provides at least two different understandings of the nature of such a theory. By far the dominant theme is Hobbesian: The only possible solution to the political problems raised by scarce resources is to return to a Hobbesian model of centralized, perhaps absolutist, sovereign power for the purpose of maintaining peace and security in a potentially explosive social and environmental context. Hobbes, Ophuls argues, is the one great theorist who understood that scarcity of resources was the source of political conflict and that if left unrestrained this conflict could be catastrophic for civilized life. Following Hardin's analysis of the "tragedy of the commons," Ophuls notes that "Hardin's implicit political theory is in all important respects identical to that of Thomas Hobbes in *Leviathan*."[49] The fundamental problem is how to restrain selfish and quarrelsome individual behavior in light of the collective need for security. The solution, inevitably, is a "sufficient measure of coercion."[50] "Only a government possessing great

powers to regulate individual behavior in the ecological common interest can deal effectively with the tragedy of the commons."[51]

There are moments when Ophuls appears to embrace what he understands to be a democratic element in Hobbes's (and Hardin's) theory: This necessary coercion should be predicated on the consent of at least the majority of the coerced.[52] In one passage, he even goes so far as to suggest that such a Hobbesian state need not be incompatible with a large degree of individual liberty and constitutional protections against arbitrary power.

> There seems to be no reason why authority cannot be made strong enough to maintain a steady-state society, and yet be limited. The personal and civil rights guaranteed by our Constitution, for example, could be largely retained in an appropriately designed steady-state society. Nor need the right to own and enjoy a sufficiency of personal property be taken away; only the right to use private property in ecologically destructive ways would have to be checked. Thus authority in a steady state need not be remote, arbitrary, and capricious; in a well-ordered and well-designed state, authority could be made constitutional and limited.[53]

Ultimately, however, Ophuls believes that his overall appeal to Hobbes is an "unpalatable conclusion" insofar as it necessarily requires a significant limitation of individual and democratic liberty—an even more profound limitation than the above comments indicate.[54] Ecological scarcity produces "overwhelming pressures toward political systems that are frankly authoritarian by current standards, for there seems to be no other way to check competitive overexploitation of resources and to assure competent direction of a complex society's affairs in accord with steady-state imperatives. Leviathan may be mitigated, but not evaded."[55] Not only is authoritarian power needed to enforce ecological standards compatible with the steady state society, but those in control must have a type of environmental knowledge that is probably beyond the reach of average democratic citizens.

> The ecologically complex steady-state society may therefore require, if not a class of ecological guardians, then at least a class of

> ecological mandarins who possess the esoteric knowledge needed to run it well. Thus, whatever its level of material affluence, the steady-state society will not only be more authoritarian and less democratic than the industrial societies of today—the necessity to cope with the tragedy of the commons would alone ensure that—but it will also in all likelihood be much more oligarchic as well, with only those possessing the ecological and other competencies necessary to make prudent decisions allowed full participation in the political process.[56]

Centralized, authoritarian government—Hobbes's Leviathan—is mandated not only because of the need to coerce individuals to conform to ecological standards, but also because of the need to combine specialized ecological knowledge with direct access to political power in order to ensure that the commons are wisely managed.

Standing alongside Ophuls's frank Hobbesian authoritarianism, however, is another set of political values that might best be thought of as a variant of "classical republicanism," with an emphasis on civic virtue and decentralized participatory democracy. Ophuls claims that the only feasible response of the political theorist to the crisis of environmental scarcity is to "enlarge our conception of politics to its classical dimensions."[57] What he seems to mean by this is, first, that political power and authority must encompass a greater scope of social and personal life than is the case in modern liberal democracy; and, second, that political theorists have to address questions of ultimate values and first principles more deeply than they do at present.[58] He notes that ecology, which must inform any defensible contemporary political theory, is an essentially conservative way of viewing the world.[59] Although he appeals to Edmund Burke as an important figure for understanding the nature of this conservatism,[60] Ophuls appears to be thinking more in terms of traditional republican commitments to civic virtue than of the acceptance of the ancient traditions promoted by Burke.

The primary moral lesson to be learned from the environmental crisis, Ophuls contends, is that we need to treat the environment with self-restraint. If we can absorb this lesson and act on it, it is not inconceivable that the radical authoritarianism he has earlier described can be avoided.[61] Any environmentally sensitive society is certain to have

a more communitarian basis than liberal democracy and must include some new and shared environmentally grounded religious orientation.[62] If individuals can renounce their pursuit of increasing wealth and material satisfaction, the possibility exists for a new social order based on communitarian and qualitative norms rather than individualistic and quantitative ones: "Once the ultimately fruitless and self-destructive quest for ever more private affluence was abandoned, public amenity would be free to grow and to produce all the kinds of cultural riches men have been able to enjoy in the past, even if the gross quantity of production were less than it is today."[63] Surprisingly, given his earlier criticism of the American political tradition, Ophuls believes that such a society would draw on Thomas Jefferson's prototype: "Where this seems to lead is toward a decentralized Jeffersonian polity of relatively small, intimate, locally autonomous, and self-governing communities rooted in the land (or other local ecological resources) and affiliated at the federal level only for a few clearly defined purposes. It leads, in other words, back to the original American vision of politics."[64] The reconstituted politics must be informed by a strong ecological ethic to guide people in their daily lives—an ethic reinforced by strong communal norms and institutions (perhaps religious in nature).

It is unclear from Ophuls's account whether he regards the Jeffersonian vision as a possible alternative to his Hobbesian forecast or actually believes the two are compatible in some unspecified way. In an article published before his book, he argues that we need "macro-autocracy [that is,on the national and even the international level] to give us a maximum of micro-democracy."[65] However, he never explains how "macro-autocracy" and "micro-democracy" can meaningfully exist simultaneously. In *Ecology and the Politics of Scarcity*, it appears as though Hobbes and Jefferson represent divergent paths: The less virtuous local communities and individuals are, the more necessary centralized authoritarian political power will become. Regardless, the relationship between these two understandings of steady-state institutions and political theory is undeveloped and ambiguous.

What can be said with some confidence, however, is that Ophuls's own analysis of the need for authoritarianism overpowers his secondary appeal to republican and democratic theory. In his earlier articles,

he repeatedly argues that Leviathan is inevitable and is in fact the only feasible solution to the problem of scarcity.[66] In his book, his claims about the expediency of authoritarianism are equally absolute. He has given the reader very little reason to be convinced by his alternative call to Jeffersonian values, and they appear to be more of an expression of his own unhappiness with his Hobbesian conclusions than an integral part of the political theory he has derived from his own ecological analysis.[67] As he writes in one of his articles, "Only a Hobbesian sovereign can deal with this situation effectively, and we are left then with the problem of determining the concrete shape of Leviathan."[68]

Not surprisingly, this neo-Malthusian literature has generated numerous unfavorable responses. One set of criticisms is directed against the empirical claims on which the analysis is built. The most sustained of these attacks has come from an economist, Julian Simon. Simon argues that the evidence presented by the neo-Malthusians regarding overpopulation, decreasing food supply, and the increasing scarcity of natural resources is generally unconvincing. Malthus was simply wrong (as are his latter-day followers) in his view that land is a fixed resource and that food production cannot possibly grow at the same rate as the population. Contrary to the claims made by Ehrlich and others, famine is actually decreasing in the twentieth century, as are other environmental problems such as pollution. Simon contends that the neo-Malthusian argument fails to explain either the empirical evidence indicating a pattern of increased food production and economic growth, or the important role played by technological developments in effecting this growth.[69] Echoing these views, one reviewer of Heilbroner's book writes, "The trend toward exhaustion of resources may be reversed by technological and social developments, which may make economically feasible access to new deposits, new methods of extraction and reprocessing, and substitution of synthetic materials."[70] Although this economic faith in the ability of markets and technology to solve environmental problems seems remarkably optimistic—even complacent—Simon's work in particular has challenged many of the empirical claims supporting the neo-Malthusian analysis.

A second empirical problem with this literature concerns its appeal

to strong, centralized, and even authoritarian government as a solution for environmental problems. Critics counter that this idea flies in the face of what is known about the nature of such centralized and authoritarian states. Susan Leeson, for example, points out that contemporary authoritarian regimes, such as the USSR, have equally bad if not worse environmental records than liberal democratic societies do—a fact that Ophuls acknowledges.[71] More generally, it is simply not true that centralized power tends to be more efficient and successful in dealing with problems like those relating to the environment. David Orr and Stuart Hill argue that "the case for a highly centralized, authoritarian solution is not sufficiently grounded in what we know (or may conjecture) to be the limits of large-scale organization."[72] Such organizations are susceptible to corruption, bureaucratic inertia, inefficiency, and other defects. There is little reason to think that they will be more capable of dealing with environmental problems than decentralized and democratic institutions.

And this leads to a third empirical criticism of the neo-Malthusian position. The basic assertion in Ophuls's and Heilbroner's work is that liberal democratic institutions have been inept at best, counterproductive at worst, in addressing environmental problems. Robert Paehlke, however, contends that this view fails to account for the "strong link between environmentalism and enhanced democratic openness and participation."[73] Environmentalists have been quite successful in working within democratic institutions, and based on this record, there is every indication that "environmentalism cannot be successful in the long run without a continuous enhancement of democratic participatory values and opportunities."[74] For Paehlke, Ophuls and others have grossly underestimated the responsiveness of democracy to environmental politics.

In addition to these empirical problems, a second set of criticisms has focused on the theoretical coherence of the neo-Malthusian analysis. Perhaps the most forceful of these is presented by J. Donald Moon, who makes two general points: one regarding resource constraints and the theory of the steady-state society, and the other relating to the neo-Malthusian critique of liberalism as a political theory. On the first point, Moon observes that a steady-state economy would not resolve the problem of scarce nonrenewable resources, which would continue to be used and, potentially, used up. Thus, technolog-

ical progress would still be required to develop alternative resources. Since this situation is identical to the one faced by a growing economy, the steady state offers no qualitative advantage over growth-based economies.

> The very conception of a steady-state society requires a level of scientific and technological advance capable of overcoming the constraints imposed by finite quantities of non-renewable resources. But if fixed stocks of non-renewable resources do not constitute a barrier to the existence of a steady-state society, then why should they constitute a barrier to a society experiencing economic growth—even exponential growth? The only difference is a matter of when exhaustion will occur.[75]

Since a steady-state economy would face the same problems of nonrenewable resources as a growth-based economy, the question then becomes, which economy would be able to generate the technological advances needed to overcome resource constraints? Here, Moon thinks, a well-functioning market system is likely to be more successful than the nonmarket systems advocated by theorists such as Ophuls.[76]

Moon's second objection to the neo-Malthusian position is that it is based on a crude and distorted understanding of liberal political theory and practice. Ophuls believes, for example, that liberalism is premised on material abundance and is thus incapable of guiding a society in which scarcity is the overwhelming fact of life. Put another way, liberalism as a theory and political practice cannot adequately control "the commons." Moon responds, however, that this portrait of liberalism misconstrues its central character. "Apart from the fact that the 'liberal' values involved are described only in the vaguest and most rhetorical terms, it overlooks the fact that an essential function of the state in classical liberal theory is to solve problems that are *identical* in form to those of the commons."[77]

Moon admits that it may be difficult to promote common interests in a liberal democratic regime, but he sees no theoretical obstacle to prevent it from doing so. There are, in fact, notable examples of such causes being promoted and protected in liberal societies. "Although the system does present many barriers to effective action in support of

widespread public interests, it has been able to respond to such interests in the past, and there is no reason to believe that environmental issues will be more intractable than others."[78] Moreover, even if environmental problems require that certain types of liberty be limited—for example, elements of economic liberty—this in no way undermines the entire universe of liberal freedoms. Freedom of speech and worship, equality before the law, and so forth, are all quite possible (and desirable) in a society facing substantial resource constraints.[79] In short, the criticism of liberal theory and practice found in the neo-Malthusian literature significantly underestimates liberalism's capacity to contend with scarcity and overestimates the threat scarcity presents to liberalism's fundamental values and commitments.

Others have noted that Ophuls's rejection of liberalism has a remarkable irony to it. While advocating that we transcend our political inheritance, Ophuls ends up returning to Hobbes, the one theorist who is central to the very foundation of liberalism. As Robert Holsworth writes, "After outlining all the faults and incapacities of our political organization, [the neo-Malthusians'] call for an end to liberalism ironically terminates by recycling the solution of the most distasteful liberal, Thomas Hobbes, in the guise of tragic realism."[80] Whether or not Hobbes should be viewed as a liberal theorist, it is at least true that his ideas are indispensable to the development of liberalism, and his resurrection certainly does not seem to herald much of a break with political orthodoxy. Certainly, given Ophuls's censure of liberal individualism, it is surprising to find him returning to one of the most radically individualistic political philosophers in the Western tradition.[81]

A third set of criticisms that has been leveled against the neo-Malthusian theorists can be thought of as sociological in nature.[82] These opponents do not address the specific empirical or theoretical claims of the neo-Malthusians so much as they call into question the general purpose of their project and attempt to locate it within a structure of class-based politics. Hans Magnus Enzenberger, for example, argues that neo-Malthusianism is an expression of bourgeois class interests: "In so far as it can be considered a source of ideology, ecology is a matter that concerns the middle class."[83] Enzenberger believes that fears about population pressures are simply reactionary responses to national liberation movements in the developing world.[84] The fre-

quent use of the metaphor "spaceship earth," which is supposed to emphasize the limited quantity of natural resources, is actually an insidious technique for justifying the political status quo with its accompanying inequality and injustice: "One of the oldest ways of giving legitimacy to class domination and exploitation is resurrected in the new garb of ecology."[85] James Ridgeway summarizes this criticism as follows: "The Neo-Malthusian doctrine, rising among both the technocrats and the ecologists, functions as a manipulative scheme aimed at controlling the poor in the interests of the wealthy."[86]

It is certainly true that some of the neo-Malthusians are very much concerned about the political disruption that may result from population pressures and resource constraints in the developing world, and these theorists are clearly nervous about the implications this turmoil may have for the stability of American society. It is also true that their writings tend to focus on the absolute levels of wealth and scarcity rather than on questions about the just distribution of resources. As Robert Hoffert observes, "Ophuls's lack of interest in resource distribution is especially troubling given his dissatisfaction with liberalism."[87] In addition, there are passages that seem to hint at the authors' preoccupation with the possible impact of scarcity on the privileged position of certain nations and social classes. For example, Ehrlich writes in *The Population Bomb* that "the time has come for us to assemble small groups of dedicated people who do not want to see our way of life destroyed by the population explosion."[88] At the very least, one can find, most noticeably in the population literature, a disturbing lack of empathy or compassion for the plight of the poor in the developing world.

Nonetheless, this sociological critique of the neo-Malthusian position is the least satisfactory of those offered. First, it ignores the message repeated throughout this literature: that scarcity demands that the wealthy and materially privileged, both individuals and nations, alter their behavior dramatically. Ophuls and Heilbroner are especially frank in their claims that the material foundations of wealth (particularly in the West) are disintegrating and that new social, political, and economic institutions and relationships will have to be developed to contend with this fact. Since radical disparities of wealth can be neither justified nor politically maintained on the basis of an expanding economy, it will be necessary to rethink notions of distributive justice, just as it will be necessary for the rich to learn to live with

less. Ophuls and Heilbroner each state that they take no joy in their conclusions, which actually run contrary to their own privileged positions and deeply held values—another aspect of the neo-Malthusian works ignored by these critics.

Most important, the sociological criticism fails to address the substantive issues raised by the neo-Malthusians. Rather than forthrightly addressing their empirical or theoretical assumptions, it attempts to discredit these claims indirectly by situating them within a social class structure. Such a tactic can tell us at most who makes these arguments, why they might be inclined to do so, and in whose interests such arguments might function. But it does not disclose whether the neo-Malthusian arguments are right or wrong, coherent or incoherent.

Setting aside considerations of empirical and theoretical cogency, there are two striking characteristics of the neo-Malthusian literature. The first is the degree to which it self-consciously attempts to divorce itself, both theoretically and institutionally, from the past. Their view is that a theoretical break is required because contemporary modes of political theory are unable to conceptualize satisfactorily the political problems created by environmental scarcity. Institutional severance is necessary because contemporary political structures are incompetent to deal with the overwhelming environmental problems we now face. The second characteristic is related to the first: The authors are ambivalent about—even repelled by—this radical commitment to an entirely new political theory and set of political institutions.

Ophuls's writings provide the paradigmatic case here, although similar elements are found in others' works as well. As we have seen, Ophuls claims that we need to reject liberal democratic political institutions, as well as the capitalist political economy they promote, in favor of more authoritarian (Hobbesian) institutions. For Ophuls (as for Hardin), only authoritarian political structures can effectively control the decisions of individuals in the interest of protecting common environmental goods. "The problem," writes Ophuls, "that the environmental crisis forces us to confront is, in fact, at the core of political philosophy: how to protect or advance the interests of the collectivity, when the individuals that make it up (or enough of them to create a

problem) behave (or are impelled to behave) in a selfish, greedy, and quarrelsome fashion. The only solution is a sufficient measure of coercion."[89] But, as pointed out, Ophuls also follows Hardin in arguing that this coercion is best thought of as "mutual coercion, mutually agreed upon by the majority of people affected."[90] This being the case, it is difficult to understand how Ophuls arrives at his authoritarian conclusions. As he frames the problem, what is needed is political authority powerful enough to regulate and manage public environmental problems—yet this authority, although necessarily extensive, need not infringe on democratic norms. If the political community can democratically legislate such authority, it is no violation of popular sovereignty and the collective will. Therefore, the need for a strong government to solve significant public problems does not by itself entail Ophuls's claim that scarcity requires the abolition of democratic government.

The less developed but crucial reason Ophuls reaches his Hobbesian solution appears to be his belief that citizens in a liberal democratic society have neither the wisdom nor inclination to empower a strong, centralized government. As noted, Ophuls's "ecologically complex steady-state society" would require a class of "ecological mandarins," who possess the knowledge necessary to manage that society. Ophuls suspects that the same mass of people responsible for exploiting "the commons" cannot and will not learn to manage them appropriately. Thus it is the ecological incompetence of democratic citizens, rather than the simple need for political power, that makes authoritarian government seem essential to Ophuls.

Garrett Hardin uses similar reasoning to arrive at his suggestions for managing what he considers the worldwide population crisis—policies that authoritatively impose stringent population control measures on underdeveloped nations. His assumption is that those who are most responsible for population growth (the poor) are the least capable of managing their own problems. In one of his later books he claims that "many poor people are pathologically passive."[91] Likewise, Ophuls and Hardin concur that those most responsible for generating environmental problems are the least capable of either effecting or understanding their solutions. Only a select group of environmental elites has the requisite knowledge to make the hard decisions necessary for resolving these problems.[92] As Ophuls writes,

environmental scarcity requires "a movement away from egalitarian democracy toward political competence and status."[93] What the neo-Malthusians view as their radical break with contemporary political institutions and political theory is actually just a revival of a conventional distrust of democracy.

But this places Ophuls and the other neo-Malthusians in a bind. Not only do they regard their projections about the political future as unattractive—presumably because their own democratic values persist, at least to some degree—but their environmentalist criticism of contemporary society includes a large measure of distrust toward both modern science and bureaucratic management. Ophuls writes that the "narrowly rationalistic norms and modus operandi of bureaucracies . . . are at odds with the ecological holism needed for the task of environmental management."[94] Heilbroner blames many of the current problems he discusses on the "runaway forces of science and technology."[95] And Hardin is very critical of technological optimists who believe that science will generate solutions to population and environmental threats without wholesale political changes.[96] Although pessimistic about the possibilities of democratic institutions solving the problems created by environmental limitations, these theorists are also highly skeptical of the managerial and scientific capabilities of modern society. In fact, they view its technologies as a part of the problem, rather than as a part of the solution.

What then is the intellectual foundation that is to inform and guide new steady-state political theories and institutions, if both democratic and scientific solutions are rejected? As noted, Heilbroner believes that future social and political institutions will have to blend a "religious" orientation with "military" discipline. Ophuls also develops similar themes: "The crisis of ecological scarcity is fundamentally a moral and spiritual crisis. . . . The earth is teaching us a moral lesson: the individual virtues that have always been necessary for ethical and spiritual reasons have now become imperative for practical ones."[97] The virtues Ophuls appears to have in mind are those of self-restraint, modesty in personal lifestyle, and a concern for the community that overrides the pursuit of personal pleasure and self-interest. "Ecology broadly defined is thus a fundamentally conservative orientation to the world."[98] It teaches that we must give up our modern quest for power and progress, discover the limitations nature imposes on us,

and accept a "modesty of both ends and means."[99] "The essential political message of this book is that we must learn ecological self-restraint before it is forced on us by a potentially monolithic and totalitarian regime or by the brute forces of nature."[100] Most importantly, this new sensibility must have a religious component that will reinforce the scientific lessons of ecology as well as the communitarian virtues issuing from these lessons. "Thus the steady-state society, like virtually all other human civilizations except modern industrialism, will almost certainly have a religious basis."[101] A religious orientation imparts the virtues necessary for an ecological society and then develops and reinforces the "ultimate values" on which such a civilization must be built.[102]

This appeal to moral and spiritual transformation is required by Ophuls's own suspicion that his political authoritarianism alone will not solve the problems he identifies. Ophuls, acceding to his critics, senses that there is no guarantee authoritarian management of the environment will have the capability or the will to address the problems of scarcity. He nonetheless is left without much of an alternative because of his distrust of democracy. In the final analysis he can only appeal to such authoritarian management, while hoping to temper and transform its character (and perhaps the extremity of its power) through the development of a new ecological sensibility. Again, despite his own distrust of bureaucratic management, Ophuls can only promote it, even if modified by some new ecological consciousness. Hoffert speaks directly to this point: "It turns out that 'genuine politics' is very much like the conceptual essence of technology—domination and control—and the machine-like 'fitness' of nature. Thus, Ophuls's ecological solution is an aping of the very processes which have generated contemporary ecological problems."[103] Whether or not technology has in fact been responsible for modern ecological problems, Hoffert is correct to see that Ophuls ends up recommending the kind of bureaucratic management of nature and society he set out to criticize. Ophuls has objected to this point, countering that his intention has not been to promote authoritarian or technocratic government, but rather to send a warning about the potential political dangers created by the current environmental crisis.[104] This response, however, is not altogether convincing. Throughout his work the emphasis is on the inevitability and necessity of such authoritarian gov-

ernment, and his ambivalence about his own conclusions cannot obscure their categorical presentation. Until his promised sequel to *Ecology and the Politics of Scarcity* appears, we can only conclude with Hoffert that Ophuls ultimately advocates, perhaps against his own better judgment, the form of politics he has censured in his own analysis.

Instead of a radically new vision of politics, what distills out of Ophuls's work is technocratic authoritarianism, modified by an only vaguely defined and mystical environmental sensibility. As such, we have not travelled anywhere near as far from Pinchot's classical conservationism as Ophuls would maintain. The crucial difference between Pinchot and the neo-Malthusians is in how they view the relationship between environmental administration and democracy. For Pinchot the scientific management of natural resources guarantees the material foundation of democratic society, provides a model of democratic public service, and thus is a tool not only for preserving natural resources, but for reenforcing democracy as well. For the neo-Malthusians, however, proper management of the environment presupposes an abridgement or negation of democratic institutions and values. While such management for Pinchot is ultimately built on his vision of democratic equality, for the neo-Malthusians it is committed, first, to simple survival and, second, to what they perceive as an environmental philosophy or consciousness. The guiding ethics are no longer political principles of justice, but ecological principles of environmental balance. In essence the neo-Malthusians are promoting progressive conservation administration without its commitment and ties to democratic values. What remains is the authoritarian management of the environment and society.

The central argument between neo-Malthusianism and classical progressive conservation is thus less one of principle than an empirical dispute over the degree to which freedom and democracy are compatible with environmental management. For Ophuls and other neo-Malthusians, Pinchot is much too optimistic about both the bounty of nature and the responsiveness of democratic society to environmental problems. To them, the waste that Pinchot abhorred is endemic not only to the behavior of a few monopolistic corporations, but to the very structure of contemporary society. It is not just privilege, but capitalism, even industrialism itself, that threatens the natural resource

base of society—if not the entire biosphere. The neo-Malthusian rejection of the democratic component of progressive conservationism grows out of their disbelief in the optimistic claims this conservationism made about natural resource abundance. Having rejected this claim, the neo-Malthusians retain the administrative form of progressive conservationism—scientific management—but abandon faith in political democracy and expanding economies, leaving only the element of managerial optimism found in the earlier American conservationism.

Neo-Malthusianism is therefore best viewed as progressive conservationism cut away from its classical commitment to democratic equality. Once this break has been made, Ophuls is right to suspect that the Leviathan is the most obvious political option remaining. In this sense the neo-Malthusians are correct to view their project as a radical break with the past. On the other hand, what they are left with is the scientific management of the environment, which had been pioneered and promoted by the first great American conservation movement. As such, they have developed a strand of the very American political tradition they believed themselves to have rebelled against.

3

Liberal Reformulations of Progressive Conservationism

> One of the penalties of an ecological education is that one lives in a world of wounds.
>
> —*Aldo Leopold*

For all the conceptual and empirical problems found in the works of the neo-Malthusians, they are not alone in their belief that the environmental conservationism of earlier generations is inappropriate or ineffectual in the context of the latter half of the twentieth century. Historians of American environmentalism have commonly distinguished between the conservationism of the Progressive Era and the environmental movement as it developed in the 1960s and 1970s. For Roderick Nash, recent environmentalism has broken away from its earlier roots in Pinchot. In the place of progressive utilitarian attitudes toward nature, he sees an emphasis on the intrinsic values and "rights" of nature.[1] Samuel Hays argues that while progressive conservationism can best be understood as part of the history of American production (stressing wise use of resources and efficiency), environmentalism in its more recent incarnations is a part of the history of American consumption patterns. As living standards rose in the period following World War II, Americans began to value wilderness and the natural environment as a resource not only for production, but for recreation and aesthetic experience. "Environmental and ecological values were an integral part of the continuous search for a better standard of living. They reflected changing attitudes about what constitutes a better life. . . . The search for environmental quality was an integral part of this rising standard of living."[2] At the same time that many environmentalists, like the neo-Malthusians, were becoming increasingly nervous about the ability of contemporary society to pro-

tect and maintain its base of natural resources, others were beginning to think of the natural world as more than a reservoir of material goods to be wisely and efficiently administered. These environmentalists viewed nature as a refuge from commercial society and a source of experiences of significantly greater value than those offered by material affluence.

Although there may be some truth to Hay's thesis, the shift in attitude within the environmental movement of the 1960s and 1970s can also be traced to the same developments that motivated the neo-Malthusians. There was, first, a growing sense that American conservation practices were proving inadequate for protecting natural resources and the environment as a whole. Rachel Carson, in her influential study of the pollution caused by the widespread use of pesticides, expresses the fear that we live in an "age when man has forgotten his origins and is blind even to his most essential needs for survival."[3] In the drive for commercial and agricultural development, we have waged "relentless war" on life itself.[4] Carson warns that we may be destroying not only the material foundation of contemporary society, but the very ecosystem that supports both human and nonhuman life. Our failure to protect the environment grows out of a second and perhaps deeper flaw in progressive conservationism: It embraces an inappropriate understanding of the proper relationship between civilization and the natural world. As Carson concludes *Silent Spring*, "The 'control of nature' is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man."[5] The technological and administrative optimism of progressive conservationism is based on the dangerous presumptions that nature exists primarily for humanity's sake and that we are capable of manipulating it solely for our purposes. The result is environmental deterioration and moral failure.

This increasing unease with the progressive conservation inheritance is found not only in the works of dissident scientists, but in the writings of officials at the very highest levels of American government. In 1963, President Kennedy's secretary of the Interior, Stewart Udall, published *The Quiet Crisis*, in which he argues that "modern life is confused by the growing imbalance between the works of man and the works of nature."[6] Although Udall commends the legacy of

conservationism handed down from the Progressive Era,[7] he nonetheless believes that the United States has ravaged and wasted its natural resources as a result of a "Myth of Superabundance,"[8] to say nothing of the greed and shortsightedness that had disturbed Pinchot half a century earlier.[9] Udall quotes with approval President Kennedy's message to Congress in 1962, in which Kennedy, in standard progressive conservationist language, defined conservation as "the wise use of our natural environment."[10] Despite his conventional language, however, Udall clearly believes that American society needs to develop new ways of thinking about the natural environment and new principles for managing it. He praises traditional Native American attitudes toward nature, and in a break with Pinchot's commitment to the multiple use of public lands, he argues that it is now essential to protect some wilderness areas from all commercial development. "More and more Americans see . . . that in this increasingly commercial civilization there must be natural sanctuaries where commercialism is barred, where factories, subdivisions, billboards, power plants, dams, and all forms of economic use are completely and permanently prohibited, where every man may enjoy the spiritual exhilaration of the wilderness."[11] Although he is not as critical of the American conservation tradition as Carson is, Udall is convinced this legacy has been unable to satisfactorily protect and preserve the natural environment. What is now needed is a "new land ethic for tomorrow" to "inspire those daily acts of stewardship which will make America a more pleasant and more productive land."[12] The call for increased productivity places Udall squarely within the Progressive framework, but by juxtaposing this with the need for a "more pleasant" nation, he is also attempting to introduce new aesthetic values into this tradition. The implication is that the progressive conservation program, lacking such values, has proved to be incomplete and a partial failure.

Two years after the appearance of *The Quiet Crisis*, Supreme Court Justice William Douglas published *A Wilderness Bill Of Rights*. Like Udall, Douglas believes humankind faces a crisis in its relationship to the environment. "Around the world, predatory man has indeed despoiled the land."[13] The focus of Douglas's concern is the destruction of wilderness areas. Although he admits that the people who admire, use, and find worth in wilderness constitute a minority in American society, he argues that they embody certain values essential for Amer-

ican civilization, and so they deserve to have their "rights" to wilderness protected by law. "Wilderness people are at the opposite end of the spectrum from any standardized product of this machine age; yet they represent basic values when they protest against automation for the wilderness and for their grandchildren."[14] Douglas proposes a "wilderness bill of rights," which would "protect those whose spiritual values extend to the rivers and lakes, the valleys and the ridges, and who find life in a mechanized society worth living only because those splendid resources are not despoiled."[15] Although he is not opposed to the general principle of multiple use,[16] he believes that commercial development is threatening to overrun the last remaining wilderness areas. Thus, Congress should act to set aside more pristine wilderness,[17] since the "minority rights" of those who cherish wilderness can only be protected if the government steps in to preserve it from relentless commercial development.[18]

Douglas takes the wilderness minority so seriously because he believes the values they represent must survive and flourish in order for American society as a whole to develop a more appropriate relationship with nature. Douglas argues that we "must learn to live with the land, not off the land,"[19] that we need "a new land ethic that restates man's relation to the earth from which he comes."[20] Wilderness, and those who care for it, can teach us to "look at the land with reverence" so that we "honor the biotic community that keeps the life of the woods and fields in balance."[21] Like Udall and Carson, Douglas believes that new moral sensibilities that transcend the utilitarianism of progressive conservationism need to be cultivated if the natural environment is to be adequately protected and appreciated.

When Udall and Douglas write of the need to develop a new "land ethic," they are referring to the language and ideas of Aldo Leopold. Leopold's beautiful little book, *A Sand County Almanac*, was influential during the 1960s and has since become a classic in environmentalist circles. In many respects, Leopold was a generation or two ahead of his time. Educated at the Yale Forestry School (which was founded with money from the Pinchot family), Leopold, like Pinchot, pursued a career in the Forest Service. His experiences with game management in the southwest, and later with forest management in Wisconsin, eventually led him to reject what he saw as the commercial and utilitarian values informing American forestry. He criticized the prac-

tice of conquering wilderness solely for the purpose of converting it to economic use, and he incisively noted that "a stump was our symbol of progress."[22] Toward the end of his life he attempted to articulate a new and more suitable ethical relationship with nature. *A Sand County Almanac,* which appeared a year after his death in 1948, was the precursor to much of the environmental literature from the 1960s and 1970s that aimed to reform and perhaps even replace what were thought of as the ethical weaknesses of conventional progressive conservationism.

Rather than defining conservationism as the wise use of natural resources, Leopold suggests it be described as "a state of harmony between men and land."[23] The utilitarianism of progressive conservationism places too much stress on the economic exploitation of nature, and this has led to a lack of respect for its nonutilitarian qualities. Referring to the extinction of the passenger pigeon, he writes, "The gadgets of industry bring us more comforts than the pigeons did, but do they add as much to the glory of the spring?"[24] Conservationism has for too long supported the "modern dogma" of "comfort at any cost" and is thus implicated in the reckless destruction of natural ecosystems.[25] "We abuse land because we regard it as a commodity belonging to us."[26] If we are to treat the land in a more ecologically sound manner, it is essential that we develop new and more substantial moral and intellectual foundations for conservation practices. "What conservation education must build is an ethical underpinning for land economics and a universal curiosity to understand the land mechanism. Conservation may then follow."[27]

Leopold suggests that such an ethic must be based on the recognition that humans are a part of the greater ecological community, rather than superior creatures standing above ecological processes. "When we see land as a community to which we belong, we may begin to use it with love and respect. There is no other way for land to survive the impact of mechanized man, nor for us to reap from it the esthetic harvest it is capable, under science, of contributing to culture."[28] If people viewed the environment in this way, they would learn to feel an appropriate "sense of shame in the proprietorship of a sick landscape."[29] Leopold outlines his idea of the three-tiered historical development of human ethics. On the first level are ethical relations between individuals, as symbolized by Mosaic law. The second

consists of relations between individuals and society and is represented by the "golden rule" and democratic principles. The third addresses the ethical relationship between people and the earth and has yet to be developed and integrated into moral thinking. "The extension of ethics to this third element in human environment is, if I read the evidence correctly, an evolutionary possibility and an ecological necessity. It is the third step in a sequence."[30] Such a "land ethic" would transcend the economic orientation of contemporary conservationism, and would give the biotic community as a whole moral standing.[31] "In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such."[32] The science of ecology can aid us in understanding the land as a "biotic mechanism" worthy of respect and love, thus laying the foundations for the land ethic.[33] "That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics."[34]

Although Leopold did not live to work out this concept of the land ethic in more detail, the idea was sympathetically received by later writers like Douglas and Udall. During the 1960s and 1970s, even those who were loyal to the tenets of progressive conservationism realized that there are environmental problems this tradition seems ill-equipped to handle and environmental values for which it fails to account. Unlike the neo-Malthusians, this group of environmentalists does not detect an impending environmental catastrophe—although environmental degradation does constitute a dire and urgent problem in need of remedy—nor are they willing to jettison their liberal political values and principles in their search for a solution to environmental problems. Rather, they see their task as locating the central flaw in the progressive conservation tradition and proposing remedies that fall within and reinforce the broader framework of democratic liberalism.

There is widespread agreement about where the fault lies in progressive conservationism: Its utilitarianism is identified as its primary weakness. Such a heavy emphasis on the use of natural resources for human needs has the effect of translating all questions concerning the environment into questions of economic utility. Nature is viewed primarily as natural resources, and natural resources are in turn defined in narrow economic terms. Thus, although Pinchot championed the

multiple use of public lands (which included use for recreation), commercial pressures on these lands ultimately overwhelmed any other consideration or rationale for protecting them. Wilderness, if it has no significant market value, is very difficult to defend on grounds of utility, and wilderness is in fact quickly succumbing to the demands of the market. Pinchot's intellectual legacy offers little to prevent this from happening. Following Leopold, many now hold that progressive conservationism's emphasis on utility is incapable of respecting all of the values that people either do or should locate in nature. The growing unease in American society with the commercial development of increasingly larger proportions of public and nonpublic lands is testimony to the tradition's failure on this count. As chronicled by scientists such as Carson, progressive conservationism is also guilty on a second count: that of failing to prevent the commercial exploitation and despoliation of the environment.

Although there is consensus on the need for an alternative to the utilitarianism of traditional conservationism, there remains uncertainty about what perspective should replace it. In the time since Leopold (and Udall and Douglas) called for a new land ethic, there have been two major liberal answers to this question. The first, represented here by the writings of Roderick Nash and Christopher Stone, develops and applies the legal and moral concept of rights to the natural environment as a way to protect and preserve nature. The second answer, found in the work of Mark Sagoff, replaces the Progressive focus on utility with the democratic conversation promoted by liberal pragmatism. Both of these alternatives attempt to build on the foundations of liberal political theory to reform, revitalize, and perhaps transform the tradition of progressive conservationism.

In his recent study of the development of environmental ethics, Roderick Nash argues that the emergence of this body of literature in the 1970s "represents the farthest extension of ethical theory in the history of thought."[35] The reasoning behind this bold claim is quite simple: Before the appearance of environmental ethics, ethics was more or less confined to relationships between humans. Environmentalist philosophers, however, are now working out ways to extend ethical theory to include all manner of nonhuman creatures, plants, and even

the earth as a whole. This project can be thought of as "arguably the most dramatic expansion of morality in the course of human thought."[36] The theory that is currently unfolding is replacing anthropocentrically oriented ethics with a biocentric ethical philosophy that extends "the esteem in which individual lives were traditionally held to the bio-physical matrix that created and sustained those lives."[37]

Nash views this development as an extension and transformation of conventional American political philosophy. The environmental movement since the 1960s has broken away from the progressive conservation tradition inherited from Pinchot, Nash argues, and has begun to think of the natural world less as a body of resources for human use and enjoyment and more as an abused sector of the ecological community. This changing view of nature has allowed environmentalists to draw on American political values that have previously been used to explain and justify various liberation movements. "Conceived of as promoting the liberation of exploited and oppressed members of the American ecological community, even the most radical fringe of the contemporary environmental movement can be understood not so much as a revolt against traditional American ideals as an extension and new application of them."[38] Although this stretching of liberal values (in particular the concept of rights) to include nonhuman entities is a significant challenge to conventional thinking, Nash contends that it is well within a historical trend in American politics and society toward gradual expansion of the community within which political and moral rights are recognized. "The alleged subversiveness of environmental ethics should be tempered with the recognition that its goal is the implementation of liberal values as old as the republic. This may not make modern environmentalism less radical, but it does place it more squarely in the mainstream of American liberalism."[39]

Nash believes that the extension of rights to nature represents "the cutting edge of liberal thought" in the late twentieth century.[40] The environmental movement of the 1960s and 1970s had its roots in the black and women's liberation movements of that period,[41] but it took the idea of liberation beyond the human community to nature. What abolitionism was for American liberalism in the mid-nineteenth century, environmentalism is for our own time.[42] Thus, in some significant sense, environmental ethics represent the pinnacle of the Ameri-

can political tradition. By rejecting the utilitarian and anthropocentric perspective of progressive conservationism and substituting a more satisfactory rights-based liberalism, environmentalism is responsible, in Nash's words, for "rounding out the American revolution."[43]

In *The Rights of Nature,* Nash is careful to claim that he is only presenting the ideas of the environmental ethics movement; he is not acting as an advocate either for or against them.[44] Elsewhere, however, Nash does present these arguments himself. For example, he states in a previous work that environmental pollution is ultimately a problem of "ethical myopia."[45] What he refers to (in an even earlier piece) as "man's biotic arrogance" grows out of a "failure to accord to all life and to the environment itself an ethical status comparable to that which he normally accords to his fellow man."[46] Conservation must become a matter not simply of calculating what is desired by human beings, but of determining in a more absolute moral sense what is right and wrong in our relationships with nature. "Conservation must become a matter of morality, not merely a matter of economics or of aesthetics or even of law. We must be concerned about environmental responsibility not because it is profitable or beautiful, and not even because it promotes our survival, but because it is *right*."[47]

The task, then, is to extend the most important category of liberal ethics and political theory—rights—to the natural world. In so doing, we will be completing a natural evolution of American liberalism, perhaps even completing the liberal project. Nash does not see overwhelming conceptual problems in such an extension, although he does not work out this reconceptualization in any detail. Rather, he suggests that intuitively the notion of rights for at least some nonhuman entities seems reasonable to Americans. For example, he argues that most of us feel that killing a dog "is as morally reprehensible if not yet so legally punishable an act as killing a person."[48] If this is so, then the concept of granting moral, and perhaps legal, rights to dogs makes sense within our shared moral framework. Only one further step is required to imagine moral rights for not only other living things, but for nonliving nature as well: "It is possible to conceive of the rights of rocks. From such a perspective, stripmining would be as heinous a crime as the rape of a neighbor's daughter. The extermination of a species would rank with genocide."[49]

Nash does not believe that bestowing rights on nonhumans neces-

sarily anthropomorphizes nature. Granting animals rights, for instance, does not require that we think of them as people. Rather, it is a way of recognizing "the worth of animals *as animals*."[50] This process, he contends, is not especially different from what has been done by acknowledging the rights of women, blacks, or other previously excluded members of the human community. "This is really only an extension of the same ethical growth that had to occur when, say, white people accepted black people into the ethical community. The point here was not to make black men white, but to affirm blackness."[51] The purpose of extending rights to the nonhuman world is to clarify our appreciation of the moral standing of this world and to formulate an ethical perspective that respects natural entities as intrinsically valuable. Thinking of nature as bearing rights also furthers the project proposed by Leopold: thinking of ourselves as members of a larger ecological community. Using rights to perform this task, Nash argues, links the "new environmentalism" he is advocating with the "revolutionary democratic theory so central to America's beginnings and subsequent history."[52]

There are a number of significant problems and ambiguities in Nash's arguments. Perhaps the most basic challenge is offered by Thomas Hobbes in *Leviathan*, when he writes against the possibility of granting rights to animals: "To make covenants with brute beasts, is impossible; because not understanding our speech, they understand not, nor accept any translation of right; nor can translate any right to another: and without mutual acceptation, there is no covenant."[53] Rights are based on principles of equality, mutuality, and agreement between members of a community. This community, therefore, must be composed of a membership capable of embodying these qualities—which means it must be a human community, for only humans are capable of making rights a coherent notion. To confer rights on animals (or any other part of nature) is literally incoherent, since it would involve the "category error" of assuming that animals (or the rest of nature) have qualities and capacities they obviously lack.

Consider also Nash's claim that granting rights to nature is not qualitatively different from acknowledging the rights of black people (or women, or any other human group). Here Nash appears to be confused about the moral significance of accepting blacks into the rights-bearing community. The point of recognizing the rights of blacks is

not to "affirm [their] blackness"; that can equally occur in a community such as the antebellum United States, in which blackness of skin was affirmed by white America as the significant characteristic that justified a peoples' exclusion from full and equal participation in the community. Recognizing the rights of blacks, it is true, is not intended to make "black men white," but neither is it meant to "affirm blackness," whiteness, or any other skin color. Rather, the purpose is to respect the common humanity between people and eliminate skin color as a pertinent consideration for moral and legal standing in society. Respecting the rights of previously excluded peoples affirms a shared human status within which race, gender, and so forth are morally and legally irrelevant. Humankind's diversity remains but is strictly subordinate to a more universal human equality.

It is obvious that such an equality is simply not comparable to the type of relationship we might have with animals or other segments of the natural environment. Nash is sensitive to this, and yet the key metaphor in his discussion is the parallel between acknowledging the rights of blacks and extending rights to nonhumans. This parallel can only hold, however, under one of two conditions (neither of which, presumably, would be acceptable to Nash himself). First, if Nash disclaims an anthropomorphic intent in granting rights to nature, then he is dangerously close to actually *dehumanizing* blacks by implying that their inclusion as rights-bearing members of the community is on the same moral plane with the inclusion of animals or rocks. On the other hand, if Nash means to suggest that nature can be incorporated into the rights-bearing community in a manner as morally significant as the incorporation of black people, then he is dangerously close to smuggling anthropomorphic conceptions of nature in through the back door. By stressing this parallel, then, Nash implies either a degradation of the moral standing of blacks or the upgrading of animals and other natural entities to a level of equality within the moral community. Either option raises serious objections.

Nash does not resolve these issues, and the language he uses to clarify his position tends to exacerbate them. To explain how we might come to grant nature a higher moral status than is found in conventional conservationism, Nash employs such terms as democracy, community, rights, oppression, and liberation—all overtly political words.

Yet it is not at all obvious how natural entities are to be incorporated into a political community in which such terms take on meaning. The result is that Nash's conceptual claims about the rights of nature remain very unclear and undeveloped, if not actually incoherent.

A related problem with Nash's discussion is found in his empirical claims about the moral sensibilities that most Americans share. Although most people would be morally outraged by the cruel or wanton killing of a dog, it strains credibility to argue that they would find this as morally reprehensible as killing a person. And no matter how censurable strip-mining may be, most Americans will probably never view it as being "as heinous a crime" as rape, nor would we necessarily want to live in a world that contained such a moral calculus. Nash's claim that it makes sense within the tradition of American moral and legal values to think of human and nonhuman lives, or living and nonliving entities, as commensurable, is empirically implausible. And since his case for the rights of nature rests on this claim, his argument is quite unconvincing.

Finally, even if we were to accept Nash's claim that nature has rights, it is not clear from his discussion how these rights would be integrated into the universe of rights held by people. How would the rights of an animal compare with the rights of a human in the event of a conflict? Or the rights of a dog with the rights of a rock? Although there are conceivable answers to these questions (the construction, for example, of a hierarchy of rights), Nash is largely silent on these issues.[54]

These problems in Nash's writings are very serious, but his work, especially *The Rights of Nature*, illustrates the appeal that the concept of rights has to environmental theorists who hope to use liberal political principles in reformulating a more satisfactory environmental ethic. Nash's work also reveals the difficulty of presenting a coherent account of how liberal rights might serve this purpose. However, when we turn from Nash to Christopher Stone, we find a much more sophisticated version of the case for the rights of nature. In developing his argument, Stone has undertaken the task of not only rethinking the legal status of natural objects, but providing a detailed moral theory that he hopes will serve to replace conventional ethical views of the nonhuman world.

Stone, a professor of law, was first moved to write on environmental

issues by a court case, *Sierra Club v. Morton*, which was reviewed by the Supreme Court in 1972. The case involved a permit granted by the U.S. Forest Service to Walt Disney Enterprises to construct a ski resort in the Mineral King Valley of Sequoia National Park. The Sierra Club sued and received a temporary restraining order against the permit. On appeal, however, the court ruled against the Sierra Club, basing its decision on the club's "want of standing." Because the Sierra Club had not demonstrated that it or any of its individual members would be directly harmed by the construction of the resort, it did not have proper legal standing for bringing suit against the project.

Knowing that the case was pending review by the Supreme Court, Stone quickly prepared a law review article, "Should Trees Have Standing?—Towards Legal Rights for Natural Objects" (later published in book form), in which he suggests that natural objects should be allowed independent legal standing. Then cases such as *Morton* could be decided directly on their merits, rather than being sidetracked by issues of who can or cannot properly bring suit on behalf of objects like Mineral King Valley.

Stone does not aim in *Should Trees Have Standing?* to make an argument about the moral rights or status of nature. Rather, he addresses the particular question of how the law might be constructed in order to conceptualize and protect legal rights for natural objects. Stone believes that it is feasible and desirable to deal with the legal issues surrounding these objects "as one does the problems of legal incompetents."[55] Just because legal incompetents—such as children, the comatose, or the mentally deranged—are unable to pursue their own interests or speak on their own behalf does not mean that they do not qualify as holders of legal rights. In fact they do hold such rights, which allow them to claim independent legal standing, to have their personal damages count in determining awards by the court, and to be the beneficiaries of such awards.[56] In other words, their legal incompetence does not prevent them from having legal rights and pressing legal claims. They are protected by a court-appointed guardian, whose job is to see that their rights are respected and, when necessary, to bring suit on their behalf. By extension, then, a series of rights could be constructed for natural objects, such as Mineral King Valley or bald eagles, and these rights could be represented by court-

appointed guardians, such as the Sierra Club and the Audubon Society.

If Stone's proposal is to make sense within the conventional legal framework that has evolved for dealing with human legal incompetents, he has to demonstrate that natural objects have identifiable interests (in a manner as meaningful as when we say, for example, that children do) and that it would be reasonable for courts to award damages to them should their rights be violated. Regarding the first issue, Stone argues that "natural objects *can* communicate their wants (needs) to us, and in ways that are not terribly ambiguous."[57] The example he uses is of his lawn: When it is dry, it is visibly and unambiguously in need of water. Likewise, biologists are presumably able to determine what animals require, even desire, to live a normal life. Therefore, ascertaining the "wants" or needs of nature does not present an overwhelming obstacle to granting them legal rights. On the issue of awarding damages to natural objects, Stone suggests that any recompense should be paid directly to the natural object itself (that is, to its legal guardian) and that the determination of amounts could be based on calculations of what it would cost to restore the natural object to its pre-violated condition. Stone contends that his proposal would not halt industrial and economic development—activities that inevitably alter or pollute the environment to some degree. "The idea of assessing damages as best we can and placing them in a trust fund is far more realistic than a hope that a total 'freeze' can be put on the environmental status quo."[58] His claim is that granting legal rights to nature will provide greater protection for it than is currently accorded by our legal system, without requiring the imposition of unworkable or unrealistic environmental standards.

If it is not legally unimaginable to develop and enforce legal rights for natural objects, the question remains as to why we might want to do so. As noted, Stone believes that it would be legally expedient: By conferring on natural objects legal standing, we would simply allow the courts to address environmental issues more directly and forthrightly than they can at present. Perhaps more important, Stone fears that if human utility is the only factor taken into account when assessing environmental issues, development and pollution will frequently get the better of the argument; it is likely, for example, that more people would use a ski resort in Mineral King Valley than a

relatively undeveloped area. Even if this were not the case, he believes that arguments from human utility, even when offered by environmentalists, fail to acknowledge all of the values we might, or should, recognize in nature: "I myself feel disingenuous rationalizing the environmental protectionist's position in terms of a utilitarian calculus, even one that takes future generations into account, and plays fast and loose with its definition of 'good.' . . . One feels that the arguments lack even their proponent's convictions. I expect they want to say something less egotistic and more emphatic but the prevailing and sanctioned modes of explanation in our society are not quite ready for it."[59]

If the law were developed in the direction Stone suggests, it might be a first step toward expanding our appreciation of and respect for the natural world. Stone hopes that the courts can lead the way to a "radical new conception of man's relationship to the rest of nature" that can aid in not only solving environmental problems, but encouraging "such a changed consciousness from the point of making us far better human beings."[60] Thus, the courts might potentially play an educational role in raising our moral sensibilities on environmental issues, just as they have on issues of desegregation.[61]

Although the Supreme Court rejected the Sierra Club's appeal in *Morton*, accepting the appellate court's view that the organization lacked legal standing in the case, Justice Douglas dissented and paid tribute to Stone's article in the first paragraph of his opinion.[62] However, as Stone points out in the opening pages of his later work, *Earth and Other Ethics*, the legal importance of his arguments in *Should Trees Have Standing?* has decreased over time. The courts in the intervening years have liberalized the grounds for hearing environmental litigation and have thus made the strategic purpose of granting legal rights to natural objects less critical than it originally appeared to Stone (and Justice Douglas). The greater significance of *Should Trees Have Standing?* is that it gave Stone the opportunity to begin formulating a more detailed conception of an environmental ethic that could replace conventional progressive conservationism. Echoing other writers (like Udall, Douglas, and Nash), Stone now wishes to place his overall project within the context of Aldo Leopold's concerns: "I would be pleased to have the present enterprise associated with Leopold's en-

treaty that we develop a 'land ethic'—or something, or some things, of that sort."[63]

Stone's intent in *Earth and Other Ethics* is to expand his discussion of the status of the environment to include not only legal issues but moral evaluation as well. First, Stone broadens his earlier focus on legal standing for natural objects to a more comprehensive conception of "legal considerateness," in order to demonstrate that there are many ways in which natural objects can be respected and protected by law. He is no longer as certain as he was in *Should Trees Have Standing?* that all natural objects can be thought of as being subject to harm or benefit in a conventional sense.[64] For instance, a polluted lake is not a living organism that has identifiable concerns or interests in its condition. Nonetheless, it is still plausible to imagine a legal system that would protect such ecosystems—perhaps through a notion of "intactness" that would not require a direct reference to the "rights" of these systems. Stone's purpose is not to undermine his previous emphasis on rights so much as it is to illustrate that there are a host of ways (including the granting of rights) in which a legal system can regard natural objects as legally considerate and give them protection on their own terms, irrespective of the human interests that may or may not be related to an object.[65] "The basic point I want to carry forward is this. As concerns the positioning of Things in law, the range of options we can coherently implement is much wider than is commonly recognized."[66]

Acknowledging the legal rights or legal considerateness of an object does not necessarily imply that we are recognizing its moral rights as well.[67] Even so, Stone's central project in *Earth and Other Ethics* is to investigate how the natural world can be thought of as having moral, and not just legal, standing. For this task, Stone rejects the option of granting moral rights to nature. Although at a high level of generalization, perhaps like that found in Nash's writing, thinking about the rights of nature might create a moral predisposition to respect natural objects more than we conventionally do, Stone suspects that rights claims will provide little guidance in evaluating specific cases. "Rights expressed on such a broad level of generality are possibly effective in contouring moral discourse, but are fated to exercise weak gravity on the final outcomes of actual conflicts."[68] Instead, Stone suggests that we extend the idea of "considerateness" for natural objects from the

legal to the moral realm. Although the difference between "considerateness" and rights is primarily one of degree, the emphasis of the former is more on our duties than on entitlements owed to nature. "When we so regard rights functionally, we see that much of what is sought can be equally well secured, and, I think, in the case of Nonpersons be more plausibly secured, by speaking of our duties."[69] Although Stone maintains a commitment to legal rights for nature (within the more general category of legal considerateness), he rejects rights as the most appropriate vehicle for conceptualizing our moral obligations to the natural world.

Turning from legal to moral philosophy, Stone believes that conventional moral thought places significant limitations on environmental ethics. He is thus forced to use his investigation of environmental ethics "as the occasion to reexamine the metaethical assumptions that underlie all of moral philosophy."[70] The problem with traditional moral thought, be it utilitarian or deontological, is that it is "monistic," or linked to a single moral system that must accommodate our entire universe of moral concerns and inquiries. Stone rejects moral monism because he thinks it is incapable of actually delivering on its universalistic promises. In reality, moral evaluation is necessary in many different contexts, requiring various kinds of reasoning. Because of this plurality of moral contexts, Stone proposes that moral pluralism supplant moral monism. To illustrate the difference between these two approaches, Stone uses the following example: "The Moral Pluralist holds that a public representative, a senator, for example, might rightly embrace utilitarianism when it comes to legislating a rule for social conduct (say, in deciding what sort of toxic waste program to establish). Yet, this same representative need not be principally utilitarian, nor even a consequentialist of any style, in arranging his personal affairs among kin or friends, or deciding whether it is right to poke out the eyes of pigeons."[71] Moral pluralism spurns the monist attempt to find one set of principles to cover all these moral relationships and problems and instead holds that different relationships may require different types of moral reasoning.

The importance of moral pluralism for environmental ethics is that it allows us to grant nature moral consideration without requiring that we also grant it a moral status (for example, rights) that may strain credibility. Roughly speaking, Stone believes that deontological eth-

ics, or Kantianism, seems most fitting for intimate human relationships, utilitarianism is more appropriate for legislation, and general ideas of "goodness" or justice should be applied to those most removed from our community (both humans and nonhumans).[72] Moral pluralism means that we evaluate moral choices and conflicts from a variety of perspectives (he refers to them as moral "maps"), rather than relying on one single calculus or standard. As a result, moral judgement becomes more richly textured than it tends to be at present, and this richness and complexity reflects the real nature of the moral problems we face in our relationships with environmental objects. "Pluralism nurtures the emergence of different frameworks for analysis, each capable of producing guidance that is less vague and general than if all problems had to answer to the same governance."[73]

If we accept Stone's analysis to this point, the next step is to test the actual use of moral pluralism to investigate ethical problems. If we invoke different moral frameworks (utilitarian, Kantian, and so forth) to settle a problem but arrive at basically the same solution, then moral pluralism might be defended on the grounds that it presents us with a stronger reason for favoring that resolution than we would have if we had only employed a single moral perspective. (Here Stone shows his legal background by noting that "lawyers are not embarrassed to cast an appeal on plural grounds."[74]) A problem arises, however, if pluralist analysis ends up generating conflicting solutions to a problem. The question then becomes, which plane of analysis should guide our decision? Stone suggests that in this case some "master rule" or "lexical ordering of planes" might be introduced to resolve the issue. If such an ordering is unavailable or unacceptable, Stone concludes that we have to sort out this particular problem intuitively: "In many cases, it may be that we are left to make those a-versus-b resolutions *as best we can*, creatively, and there is nothing more we can say. Indeed, does the continuing mystery of the human brain not lie precisely in this, that it has the power to create solutions not fully causally ordained by its antecedently programed 'instructions'?"[75]

This is the central problem with Stone's moral pluralism: When pluralist analysis produces contradictory answers to moral problems, we may then turn to a master rule or lexical ordering of moral planes. It is difficult to see how, in the final analysis, such an appeal is any differ-

ent from moral monism. Stone recognizes this problem and offers the following defense: "One might respond that by legitimating an appeal to a master rule in certain cases, we are thereby endorsing a sort of Monism 'after all.' But it is an 'after all' significant enough to keep Pluralism from collapsing into Monism."[76] But Stone's claim here is not convincing. A master rule, even if introduced on an *ad hoc* basis, is a rule designed to prefer one "moral plane" over another. This raises the fundamental question of why one moral plane should be thought of as superior to another, which brings us back to moral monism. Stone may have provided an outline for a more complex or eclectic form of traditional theory, but it does not appear that he escapes the moral monism he has set out to criticize. As J. Baird Callicott notes, "When we are forced to choose between 'planes,' we make a metaphysical commitment as well as a moral choice."[77] And it is precisely this metaphysical commitment that Stone wishes to avoid.

Stone is critical of the attempt by legal theorists and philosophers to develop universalistic and metaphysically grounded moral theories. In fact, he argues that human intuition and emotion must be the ultimate guide in moral issues. The moral pluralism he defends must be thought of mainly as a mechanism to be steered by intuitive insight, rather than an analytic blueprint for solving the kind of moral issues that environmental ethics addresses. These insights are better represented in our arts and literature than in our academic moral and legal theorizing. "That is why the planar choices, those that go to the ground rules of each plane and the whole assembly of planes, are less under the sway of the stuff we academics do than of literature, folk songs, war, art, landscape, and poetry."[78] But Stone's own theory requires the very "stuff we academics do" in order to generate a plurality of moral frameworks in the first place. If there is no philosophical justification for utilitarianism (or Kantianism, or any other ethical plane we might employ), it is unclear why it should be included within our analysis. Stone is at pains to distinguish his moral pluralism from moral relativism, and he claims that, like the monist, he is assuming the perspective of an "independent moral observer."[79] In other words there are (at least in principle) universally correct answers to moral problems, and moral pluralism can evoke moral reasoning that appeals to principles beyond what people simply happen to believe, for historical or sociological reasons, at the moment.[80] If this is

so, however, Stone's choosing of appropriate moral planes requires precisely the type of defense that he has abandoned. Either his choice of planes becomes historically contingent (and perhaps, in that sense, philosophically arbitrary), or his moral pluralism is less a break with moral monism than it is a system of multiple monisms. In the former case, it seems that Stone has failed to offer the kind of moral tool for environmental ethics that he set out to develop. In the latter, it does not appear that Stone's moral pluralism replaces conventional moral thought in the manner he originally intended.

Following the publication of *Should Trees Have Standing?* Laurence Tribe wrote in an influential essay that assigning legal rights to endangered species might be thought of as "a convenient technique for concentrating congeries of otherwise diffuse aesthetic and ecological concerns ultimately reducible to human interests—in other words, as a useful but quite transparent legal fiction."[81] If this were all that could be gained from such an innovation, he argues, it would nonetheless be significant. Yet Tribe, like Stone, suggests that this legal device might lead to a more general refocusing of our moral sensibilities toward nature. "But we might plausibly hope for more. At least so long as we remain within empathizing distance of the objects whose rights we seek to recognize, it seems reasonable to expect the acknowledgement of such rights to be regarded as more than fictitious."[82] Granting legal rights to nature can be thought of as a way to cultivate a greater respect and empathy for the natural world in both our moral and legal thinking.

Yet Stone's investigation of this more general moral view of nature confronts significant obstacles. His suspicion that conventional liberal theory, be it utilitarian or Kantian in origin, does not permit an adequate moral understanding of nature leads him to offer what he considers an alternative moral perspective. As we have seen, however, Stone is forced to assume many of the elements of the liberal theory he intends to criticize. He assumes the feasibility of conventional theoretical approaches and then incorporates them into an eclectic synthesis of methods—without justifying their use to the degree that ethical theory requires. Furthermore, Stone casts doubt on his entire philosophical project through his appeal to intuition and emotion. One senses that at these moments he is no longer confident that a pluralist environmental ethics can really be an effective guide in reasoned debate about environmental issues. Leopold's call for the de-

velopment of a land ethic, as Stone suggests, may require moral categories beyond liberal rights and perhaps even beyond liberal theory as a whole. But Stone's attempt to use liberal legal and moral categories to articulate such a land ethic leaves him fluctuating between an uneasy embrace of the original approaches and an apparent rejection of them altogether.

If Stone and Nash approach the development of a Leopoldian land ethic by considering the relevance of liberal rights for this task, Mark Sagoff approaches the problem by drawing on a different strain of liberal thought: democratic pragmatism. One of the central questions facing Sagoff, like the other theorists discussed in this chapter, is whether liberalism can actually provide a defense of environmentalism: "May liberals support environmental laws even when these conflict with the utilitarian and egalitarian goals we usually associate with liberalism?"[83] Unlike Stone and Nash, who attempt to use one or more of these conventional liberal goals to develop their environmental theory, Sagoff looks elsewhere within the liberal tradition to explore environmentalist values.

In what should now be recognized as a familiar theme, Sagoff draws a contrast between Pinchot's conservationism and Leopold's call for a new land ethic.[84] "The environmental, or 'ecology,' movement that arose in the 1960s and 1970s differs from conservationism in defending a nonutilitarian conception of man's relationship to nature."[85] Inspired by Leopold, this new perspective does not collapse environmental values and concerns into economic evaluation. In fact, in Sagoff's view, the tendency to reduce environmental problems to economic analysis—as is found in much of the contemporary environmental regulation literature—is the direct legacy of Pinchot's conservationism. The burden of Sagoff's argument is to demonstrate that this type of analysis, and the public policy that has grown out of it, are untenable and unhealthy for both environmentalism and American democratic institutions.

The focus of Sagoff's attack is on what he sees as the overriding utilitarianism found in environmental policy debates and in social regulation generally. The form this utilitarianism usually takes is economic cost-benefit analysis, which Sagoff claims is inappropriate for two reasons. The first is that cost-benefit analysis makes a conceptual error in

assuming that social regulation can be reduced to an evaluation of individual preferences. The second error flows from the first: Since it is based on this assumption, cost-benefit analysis short-circuits the political process through which legitimate political decisions must be made.

Sagoff contends that the first error is the result of economic reductionism, or thinking of people simply as individual bundles of interests and personal preferences. If this were true, democratic decision making about environmental (or any other) issues could be achieved simply by taking a poll of individual preferences and allowing the majority to rule. Sagoff, however, draws a strong distinction between our roles as consumers and as citizens. To illustrate this point, he uses the example of the proposed development of Mineral King Valley, which generated the *Morton* case. When Sagoff asked students in an environmental ethics class if they would enjoy visiting a ski resort at Mineral King Valley, there was overwhelming enthusiasm about the prospect. When asked if they would visit the valley in its undeveloped state, very few students thought they would ever wish to do so. As consumers, Sagoff's students clearly preferred a developed to an undeveloped Mineral King Valley. Nonetheless, when he asked them if they believed that Walt Disney should be allowed to build the ski resort, the response was overwhelmingly negative. Although their consumer options would be increased by having a resort there, few believed that it should actually be built. For Sagoff, this surprising combination of preferences demonstrates that a policy question can be analyzed on two distinct levels. The first level is utilitarian and simply tallies consumer preferences. The second, however, involves a moral evaluation of the proposed policy. In Sagoff's view, when the students drew on this second, moral capacity, they expressed their opinions as citizens, not as consumers.[86]

The problem with cost-benefit analysis, and the utilitarianism on which it is built, is that it considers only the first level of analysis and ignores the second. The result, obviously, can be perverse: In this case, it leads quite clearly to what Sagoff sees as the wrong decision. Cost-benefit analysis conflates our values with our preferences, our public interests with our private interests, and our citizenship with our consumership. In so doing, cost-benefit analysis replaces moral judgment with a scientific method for calculating individual prefer-

ences or utility. In Sagoff's terms, the virtues of moral discourse and evaluation are replaced by a false methodological certainty, and public deliberation is replaced by scientific management. Economists and analysts have attempted to integrate individual concerns and values about the environment into their cost-benefit computations—through the concept of "externalities" or the creation of "shadow prices"—but they are actually making a logical error. Environmental values—in fact, all values—are qualitatively different from consumer or utilitarian preferences and thus the two cannot be equated. "When analysts expand the notion of an externality . . . to embrace the opinions and beliefs of the citizenry, which are central to environmental legislation, they make a bald attempt not to inform but to replace the political process. . . . Thus, cost-benefit techniques, when they go beyond the confines of determining efficiency in the narrow sense, do not provide useful information. Rather, they confuse preference with ethical and factual judgment."[87]

Sagoff's claim is that environmental legislation and policy must be based on shared national values that are not necessarily reducible to individual consumer preferences: "People in communities know purposes and aspirations together they could not know alone."[88] It is only through democratic participation and dialogue that these purposes and aspirations can be discovered and expressed. "The ability of the political process to cause people to change their values and to rise above their self-interest is crucial to its legitimacy. Political participation is supposed to educate and elevate public opinion; it is not, like economic analysis, supposed merely to gratify preexisting desires."[89] Sagoff believes that environmental legislation will only make sense if we think of it as an expression of our moral values as a nation, rather than as the outcome of a struggle between competing interests.[90]

> Social regulation most fundamentally has to do with the identity of a nation—a nation committed historically, for example, to appreciate and preserve a fabulous natural heritage and to pass it on reasonably undisturbed to future generations. This is not a question of what we *want*; it is not exactly a question of what we *believe in*; it is a question of what we *are*. There is no theoretical answer to such a question; the answer has to do with our history, our destiny, and our self-perception as a people.[91]

It is to our history and to the moral content of our decisions as a nation, rather than to individual utility and cost-benefit analysis, that the legislator and the public servant must attend when considering environmental policy.[92] To do otherwise is to replace moral evaluation with utilitarian calculation, and this undermines the integrity and legitimacy of environmental policy.

Sagoff's critique of conventional liberal conservationism is not confined to its utilitarian incarnations. He is equally wary of deontological or Kantian arguments that attempt to use the language of rights to defend environmentalist positions. To speak of the "rights of nature" is, he believes, incoherent, since the concept of rights applies to individuals rather than to aggregations or groups. On these grounds alone, theorists like Nash are wrong to use the concept in their environmental ethics.[93] Others, who employ arguments about the rights of future generations to justify environmental protection in the present, are actually defending long-term cost-benefit analysis—that is, Sagoff regards this tactic as just one more version of the utilitarian case he has already criticized.[94] Both of these approaches are guilty of the same error found in traditional progressive conservationism: One view attempts to account for the preferences of nature, while the other considers the preferences of future generations of humans, but both replace moral evaluation with utilitarian calculation. As such, both threaten to subvert the democratic process required for generating collective ethical values toward nature by substituting instead the opinions of experts. Finally, Sagoff is suspicious of the self-righteousness of those rights theorists who compare the granting of rights to nature with the liberation of previously oppressed members of the human community. In an early article he summarizes these views by criticizing Stone and Tribe:

> At a stroke, Stone and Tribe seem to reconcile the assumption that all policy is to be directed by desires and interests with the felt need to find some rationale for preserving the natural environment. All that has to be done, so it seems, is to countenance the interests of nature along with our own. Secondly, the proposal to give rights to nature immediately indicates the need for, and therefore the employment of, more social and technical planners—professionals who measure the needs or wants of nature

> and represent them in court. This increases the level of expertise available to society. . . . Finally, the suggestion that trees have standing smothers the authors with glory: it ranks them as emancipators, almost as great as the emancipators of the Jews, blacks, and women.[95]

Most important, rights-based arguments circumvent the democratic process and, like utilitarianism, reduce the moral issues of environmental protection to technical questions of needs, wants, interests, and preferences.[96]

Related to Sagoff's criticism of utilitarian and deontological environmental ethics is his claim that these approaches mistakenly tie environmental ethics to a more comprehensive theory of distributive justice. His position, on the contrary, is that "an environmental ethic cannot be derived entirely from a theory of justice."[97] The moral values that should inform environmental legislation and policy are logically and practically distinct from the norms of justice that appropriately inform our concerns about the distribution of goods between citizens. National values that evolve to guide and support environmental protection should emerge independently from considerations of human equality and liberty.

Sagoff views the history of environmental law from the New Deal to the 1960s as a "continuous compromise . . . between those who approach the protection of public health, safety, and the environment primarily in ethical terms and those who conceive it primarily in economic terms."[98] The environmental legislation from the 1960s and 1970s, however, represents a victory for the former, since it is largely written in the language of absolute moral goals. For example, Sagoff contends that the Endangered Species Act is an example of precisely the type of legislation he is advocating: "Because the plain language, as well as the judicial interpretation, of the Endangered Species Act explicitly prohibits an interest-balancing or cost-benefit test, the statute has worked rather well."[99] This act and similar legislation, such as the Clean Air Act, set absolute moral standards of environmental integrity that the nation is committed to uphold and thus escapes the amoral utilitarianism of much environmental policy and administration.

Somewhat surprisingly, however, Sagoff contends that the absolut-

ist ethical language of environmental legislation from this period is no longer appropriate today. Although the legislation correctly substitutes moral standards for economic calculation in determining environmental policy, many of its standards are not realizable in contemporary society. Sagoff therefore concludes by reconsidering the role that economic analysis may legitimately play in determining environmental legislation and policy.

> The problem for social regulation today . . . is not to determine what is efficient from an economic point of view; it is to weigh ends and means together in order to set targets and standards that are reasonable in relation to the efforts necessary to achieve them. It is to make this appraisal, insofar as possible, to begin with, rather than to make compromises afterward, at the level of enforcement. We may do more, in this way, to achieve goals appropriate to a caring, compassionate nation that respects its natural environment.[100]

If environmentalists continue to demand environmental standards that ignore the complex material realities surrounding their enforcement, legislation may be discredited in practice and the door opened once again to those who would reduce environmental questions to economic calculation. Appealing to John Dewey, Sagoff writes that "To will the end, we must also will the means, and therefore we should make some effort to assess goals in relation to the obstacles, constraints, and costs that make them difficult to achieve."[101] The point is not to subordinate our moral principles and goals to economic considerations, as Sagoff believes cost-benefit analysis does, but to realistically weigh technical and economic issues relevant to achieving our goals. "The important thing is for administrative actions to bear a reasonable relationship with statutory values in the context of all the 'realities' that make the assessment and control of risk so difficult. There is no general theoretical path to achieve this kind of relationship; it depends on the minute particulars of each case."[102] A pragmatic assessment of the relationship of means to ends does not mean that we are compromising the ethical content of the ends themselves. Sagoff believes that since our environmental knowledge is so much greater than it was in the 1960s and early 1970s, the absolutist tone of much of

the legislation from this period can be softened without compromising the moral perspective that informs it.[103]

Sagoff's theoretical defense of a Leopoldian "land ethic," therefore, rejects both utilitarian and deontological liberal solutions in favor of a pragmatic evaluation of U.S. environmental values as he believes they are embodied in our cultural history, legislation, and democratic discourse as citizens. He fears not only that the utilitarianism of progressive conservationism fails to account for these national values, but that many of the critics of this tradition, such as theorists of the rights of nature, circumvent democratic traditions and dialogue in developing their own version of environmental ethics. In contrast to these other theorists, Sagoff contends that the goals of environmental policy must "be determined through a political process in which citizens participate constrained only by rights of the kind protected by the Constitution. These goals are not known beforehand by a vanguard party of political economists or by an elite corps of philosopher-kings."[104]

The danger of Sagoff's position, however, is precisely in his appeal to historical environmental values. He is certainly correct to believe that if we examine American history, we can find a tradition of respect and care for the environment. But it is equally true (as his own account suggests) that other trends in American political and cultural history do not support the type of environmental ethic Sagoff proposes. In light of this, Sagoff provides few philosophical arguments to explain why we should accept one of these traditions as legitimate and the rest as unacceptable. Sagoff's analysis relies heavily on the empirical claim that Americans, when acting in their capacities as citizens rather than as consumers, will choose to support and enforce environmentalist policies and values. If he is right, environmental policies will continue to expand and strengthen to the degree that American political democracy expands and matures. If he is wrong, however, democratic politics might prove to have negative environmental consequences (if, say, after legitimate democratic deliberation we decide, as citizens, to prefer shopping malls to undeveloped wilderness). In this event, Sagoff offers very little philosophical ammunition with which to protect the environment from democratic society. Christopher Stone criticizes Sagoff on this point: "I am not sure, frankly, that even this modest mileage he now hopes to get from na-

tional symbols provides much basis for an *environmental ethic*. It would be destined, at its best, to form an inappropriately relativist, culture-bound basis for an epoch that is getting goosebumps over the ozone layer and the oceans."[105]

All the environmental thinkers discussed in this chapter share a concern that the theoretical and practical legacy of Pinchot's progressive conservationism has a severe flaw; the overt utilitarianism promoted as the basis of society's relationship to the natural environment. They also all hope to find the theoretical and political tools with which to repair this tradition within liberal political thought and institutions. For Nash, the concept of liberal rights, if expanded appropriately, can be fashioned to incorporate and protect the nonhuman world. For Stone, legal rights, combined with an eclectic pluralism of liberal moral values, can perform this function. For Sagoff, democratic pragmatism can avoid the problems associated with both utilitarian and rights-based liberalism, even as it uncovers and illuminates an American environmental tradition that can direct environmental legislation and administration.

Two important consequences flow from their project. The first is that in rejecting Pinchot's utilitarianism in favor of adopting some other liberal principles to guide their environmental ethics, these thinkers have also discarded the element of progressive conservationism that was the source of its political popularity and democratic integrity: its commitment to democratic equality. Nash, Stone, and Sagoff all reject the materialist foundation of this equality as it is found in Pinchot's work. After more than half a century, it has become clear to these theorists that not only does Pinchotian conservation inadequately protect the environment, but its emphasis on providing the basis for democratic equality by means of access to wealth and natural resources has been responsible for public policies that actually exacerbate the exploitation and deterioration of nature. Of these theorists, Sagoff alone remains committed to reformulating environmental protection within the context of democratic politics and suggesting a new connection between the two. As Sagoff points out, those who promote a conception of the rights of nature have difficulty avoiding

solutions that are potentially as technocratic as those found in Pinchot's legacy.

A second consequence of the attempt to develop an alternative liberal environmental ethic is that while the most sophisticated positions, those of Stone and Sagoff, may challenge the conceptual boundaries of liberal theory, they may also be unsatisfactory to the environmentalist constituency to which they appeal. Both Stone and Sagoff aspire toward an environmental ethic and a political theory that will, in the tradition of Leopold, respect the intrinsic value and moral importance of natural objects apart from their usefulness to human beings. Stone's moral pluralism thus promotes, in effect, a balancing of moral interests between human and nonhuman beings. For example, on the issue of whether or not the Inupiat Indians of northern Alaska should be permitted to hunt bowhead whales (an endangered species), Stone endorses the Alaska Whaling Commission's decision to allow the Inupiats a limited number of harpoon strikes each year.[106] To Stone, this policy correctly balances the moral claims of the Inupiats to practice their traditional lifestyle with the interests of bowhead whales in surviving. Stone's approval of the commission's compromise, however, might seem a bit too complacent to those concerned about the plight of endangered species.

Likewise, Sagoff finds that his own pragmatic attempt to discover a "middle way" between morally absolute environmental goals and economic realities has been supported by recent court decisions.[107] Although he contends that pragmatic evaluation does not threaten the moral commitments we have to environmental protection, his policy conclusions appear to be much more moderate than the thrust of much of his own analysis. While praising the strong (even if unrealistic) moral standards found in much environmental legislation twenty years ago, his position is that we are now knowledgeable and environmentally committed enough to moderate the tone of our environmental legislation and administration. Again, those who are less complacent about U.S. environmental commitments may view Sagoff's position as undermining the moral force of his theory.

Although Sagoff is quick to criticize rights-based theorists such as Stone and Nash, there is actually much common ground between them. Nash hopes to nourish an understanding of the rights of nature, but his appeal finally rests on his own intuitions about the moral

sensibilities of his fellow citizens rather than on deontological claims about the moral status of the nonhuman world. Stone, likewise, grounds his system of pluralist environmental ethics in the general cultural and artistic norms he purports to find in American society. Just as Sagoff's reading of the environmentalist commitments of Americans is vulnerable to empirical invalidation, so also are Stone's and Nash's optimistic readings of the environmental values shared by Americans generally.

The authors discussed in this chapter believe that our established political institutions and discourse already have what is needed to shape and defend a new environmental ethic—one that not only solves our environmental problems, but reshapes our attitudes toward nature in a way that will strengthen our commitments to environmental protection in the future. Those who are less optimistic about conventional institutions, moral legacies, and theoretical traditions, however, must take their inspiration and guidance from lesser known and even nonliberal sources of the American political and environmental heritage.

4
The Spiritualization of Nature

> Integrity is wholeness, the
> greatest beauty is
> Organic wholeness, the wholeness of life and things, the divine
> beauty of the universe. Love that, not man
> Apart from that, or else you will share man's pitiful confusions,
> or drown in despair when his days darken.
>
> —*Robinson Jeffers*

> We are learning finally that the forests and mountains and desert canyons are holier than our churches.
>
> —*Edward Abbey*

While the inheritors of progressive conservationism have attempted to reconcile its emphasis on the multiple use of natural resources with the need to develop a respect for the environment that transcends social utility, other contemporary environmental theorists have turned away from that heritage altogether. Rejecting both the utilitarianism of progressive conservationism and its liberal reform, they have revived the pastoral tradition inspired by Thoreau. This tradition is founded on the belief that nature is less significant as a source of material goods and well-being than as a moral guide and educator. When this postulate was translated through the life and writings of John Muir, however, it lost its political character: The experience of nature became important for religious inspiration and personal satisfaction, not as a fount of political knowledge and radical principles. In addition to providing a general criticism of contemporary society, modern pastoral environmentalism has moved in the direction of offering an alternative lifestyle for those alienated from commercial society, as well as an account of the independent moral significance of the natural world

that avoids the anthropocentrism of the progressive conservation tradition.

In 1913 the U.S. Congress and President Wilson approved a bill authorizing the public construction of a dam in the Hetch Hetchy Valley of Yosemite National Park. The reservoir created by the dam was to supply water to San Francisco—a city that had suffered chronic water shortages throughout its history—about one hundred fifty miles away. Although both houses of Congress overwhelmingly favored construction of the dam,[1] the years preceding the final vote were filled with a vigorous and often bitter debate over the issue. On the one side were progressive conservationists, such as Gifford Pinchot, who endorsed the project as a "wise use" of natural resources, answering obvious human needs. On the other side were wilderness preservationists, led by the president and founder of the Sierra Club, John Muir, who viewed the scheme as an unjustifiable intrusion on a magnificent, even holy, wilderness area. Never before in American history had a development project generated such national attention and so clearly pitted advocates of wilderness preservation against progressive conservationists. As Roderick Nash writes, "For the first time in the American experience the competing claims of wilderness and civilization to a specific area received a thorough hearing before the national audience."[2] Historians frequently refer to the battle over Hetch Hetchy as the first significant split between conservationists and wilderness preservationists, and it was certainly the event that forced preservationists like Muir to publicly articulate and defend their break with Pinchot's views. The manner in which they did so continues to strongly influence the work of contemporary environmentalists who believe it is necessary to reject and replace, rather than reform, the tradition of progressive conservationism.

For progressive conservationists like Pinchot, the proposal to dam Hetch Hetchy presented no significant moral dilemmas. In the first place, an engineering study in 1907 had found that the dam was the only practical solution to San Francisco's water problems.[3] This study came out only a year after the devastating earthquake and fire in San Francisco, which had generated tremendous sympathy for the city's need to rebuild and develop its infrastructure. On strictly utilitarian

grounds, the project made obvious good sense. Pinchot explained his support for the plan by appealing to his own conservationist values: "The fundamental principle of the whole conservation policy is that of use, to take every part of the land and its resources and put it to that use in which it will serve the most people."[4] Even later critics of the dam, such as John Muir's biographer Michael Cohen, concede that when judged on the basis of utility, the dam clearly had the better argument. "When the issues were reduced to the realm of utilitarian and materialist ideology, there was not much doubt that the water for San Francisco would be seen as a greater good for a greater number."[5]

But to Pinchot and like-minded conservationists, there were equally important democratic considerations that prompted them to throw their support behind the project. California congressman William Kent, a Progressive who had always been sympathetic to conservation and was a friend of both Pinchot's and Muir's, viewed the dam as an opportunity to assert the principle of public ownership and control of utilities. As Roderick Nash explains, "While [Kent] realized that Hetch Hetchy was valuable as wilderness and part of a national park, he also knew that the powerful Pacific Gas and Electric Company wanted the valley as a step toward consolidating its control over California hydroelectric resources. Municipal control of Hetch Hetchy's water by San Francisco would block this plan, be a significant victory for the ideal of public ownership, and, beyond that, assert the democratic principle."[6] Progressives like Kent feared private monopolies in general but were most passionate about monopolies of essential goods and services.[7] To them, damming Hetch Hetchy would not only be good for San Francisco on straightforward utilitarian grounds but would also serve to boost the democratic agenda of publicly controlled utilities. As Nash points out, it was a combination of these views that generated congressional support for the project.[8]

Although Muir and other opponents of the dam claimed that there were alternative, potentially adequate water sources for San Francisco, they did not fully develop this line of argument in their attack on the proposal. Rather, they concentrated on themes of virtue and corruption. Support for the dam was support for "mammon."[9] As Muir describes it, the dam is a "grossly destructive commercial scheme."[10] The wilderness of Hetch Hetchy Valley represents the magnificent

handiwork of God, and to destroy the valley (even if the reservoir were to be made into a beautiful public park) would be to destroy this divine masterpiece for crass materialistic purposes. In Muir's view, "These temple destroyers, devotees of ravaging commercialism, seem to have a perfect contempt for Nature, and, instead of lifting their eyes to the God of the mountains, lift them to the Almighty Dollar. Dam Hetch Hetchy! As well dam for water-tanks the people's cathedrals and churches, for no holier temple has ever been consecrated by the heart of man."[11]

For Muir, a dam in Yosemite is comparable to allowing money changers in the temple.[12] The wilderness of Hetch Hetchy represents values that can elevate human life above the corrupt commercialism and materialism found in urban centers such as San Francisco. That these values do not appear to many Americans as superior to material comfort only indicates the depths to which American society has fallen. Even to consider building such a dam suggests rampant moral decay. "That any would try to destroy such a place seems incredible; but sad experience shows that there are people good enough and bad enough for anything."[13] Arguments for the dam are like the whispers of the devil, and it was he, of course, who had instigated expulsion from Eden.[14]

Supporters of the dam must have been taken aback by rhetoric like this. In their view, it was not mammon but democracy that was at stake. They saw themselves as the champions of the public good, democratically defined, rather than the defenders of "commercialism" or unbridled capitalism. Although Pinchot and Muir had been very friendly in earlier times—in his autobiography Pinchot fondly remembers a night's encampment with Muir on the rim of the Grand Canyon[15]—the conflict over Hetch Hetchy illustrated in bold relief their radically different conceptions of conservation and the importance of nature. As Roderick Nash puts it, this incident demonstrated that "for all of his love of the woods, Pinchot's ultimate loyalty was to civilization and forestry; Muir's was to wilderness and preservation."[16] Pinchot's private papers and correspondence reveal that the Hetch Hetchy experience led him to become increasingly short-tempered about "nature lovers" like Muir.[17] For Muir, Pinchot's brand of conservation came to represent a direct assault on nature and the virtues it embodied.

What is perhaps most striking about Muir's defense of the Hetch Hetchy Valley is the degree to which he was either blind to the progressive democratic commitments that lay behind much of the national backing of the project, or unwilling to distinguish these commitments from unholy support for capitalism, commercialism, and money worship. In Muir's eyes, the choice is stark: Either we respect and protect natural wonders like Hetch Hetchy, or we succumb to the vices of a corrupt commercial civilization. Muir's lifelong project, and the project of those who follow his example today, is to give an account of his rejection of the democratic and utilitarian tenets of progressive conservationism and to articulate an alternative understanding of the importance and value of nature, which can serve to mediate the competing claims of civilization and the environment.

Nash is certainly not exaggerating when he locates Muir's ultimate loyalty in wilderness and its preservation. Muir's life can be read as a series of retreats from society to the wilderness, from the world of human activities and obligations to the refuge of nature. In 1863 Muir left the University of Wisconsin to study in what he called the "University of the Wilderness" in Canada.[18] This decision to abandon his formal schooling coincided with a determination to give up the study of medicine; as he wrote to a friend, although practicing medicine would contribute to the lessening of human misery, his reason told him, "You will die ere you are ready to be able to do so."[19] Significantly, his wanderings in the Canadian wilderness also coincided with the Civil War—a timing motivated by Muir's tremendous fear of being dragged into a conflict to which he was not a party.[20] Although he would experience guilt about avoiding the draft and fleeing to Canada, as a Scottish immigrant he did not feel implicated in the greatest moral and political crisis facing the United States during his lifetime. As one biographer puts it, Muir "was paralyzed by the threat of conscription. . . . Politics still lay outside his ken; he had no strong feelings about the moral aspects of the war. It simply intruded on his life."[21] In fact, he would not become an American citizen until he was sixty-five, and only then in order to obtain a passport for a planned trip around the world.[22]

After the war, Muir went to Indianapolis to work in a machine shop, having demonstrated mechanical genius throughout his youth. After an accident left him temporarily blind, he "bade adieu to all of my me-

chanical inventions, determined to devote the rest of my life to the study of the inventions of God."[23] He then embarked on his famous thousand mile walk from Indianapolis to the Gulf of Mexico and continued to roam until he found his adopted home in the Sierra Mountains of California. The degree to which Muir's wanderings led him away from human community is illustrated by his temporary abandonment of his fiancée when he took a long trip to Alaska, causing his future wife distress over his neglect.[24] Although in later life he would become involved in the political controversy over Hetch Hetchy, he did so only because his beloved wilderness was being threatened by American society. He was always distrustful of political reformers and only reluctantly became one himself because of what he viewed as extreme circumstances.[25]

For Muir, social activities, professions, and relationships hold slight allure at best and are useless and destructive at worst. "So-called sentimental, transcendental dreaming seems the only sensible and substantial business that one can engage in."[26] When reflecting on the world of men, Muir finds little to praise, seeing little more than "gross heathenism" in modern civilization.[27] Urban America overwhelms and disgusts him, and his attitude frequently becomes overtly misanthropic. Visiting New York City as a young man, he thought he might like to explore it, but only if all the people left![28] Perhaps his view of urban life is best summarized by his judgment about the citizens of San Francisco: The "boasted freedom of the town" is actually nothing but "pagan slavery," and all the people there "are more or less sick; there is not a perfectly sane man in San Francisco."[29] In comparison with the "intense purity and cordiality and beauty of Nature," the refinement and culture of civilization are but "gross barbarisms."[30] Nor are Muir's censures confined to urban society. He refers to shepherds in Yosemite as "money changers . . . in the temple,"[31] and, in even more startling language, he views the other men he stumbles upon in Yosemite as alien, even revolting: "As for the rough vertical animals called men, who occur in and on these mountains like sticks of condensed filth, I am not in *contact* with them; I do not live with them."[32] Muir concludes early on that his affinities lie with the wild creatures rather than with his fellow humans. "Well, I have precious little sympathy for the selfish propriety of civilized man, and if a war of races

should occur between the wild beasts and Lord Man, I should be tempted to sympathize with the bears."[33]

Muir once perceptively wrote that he did not "mould in with the rest of mankind,"[34] and yet he was not without the need for at least an abstract kind of human relationship. "It is easy enough to live out of material sight of friends, but to live without human love is impossible."[35] Nonetheless, the primary source of love for Muir is not found among humans, but in the experience of nature. He believes that as long as nature is unaltered by human activity, it embodies a perfect beauty. "None of Nature's landscapes are ugly so long as they are wild."[36] This beauty, in turn, is the pure expression of God's love. "Where all is beauty, all is love."[37] When in the wild, Muir considers himself in an intense and immediate relationship with God, or what he refers to as "Nature-God."[38] The animals he sees are "happy" ("the whole wilderness is enlivened with happy animals"[39]), and here, unlike in the tame world of human society, God looks after the needs of all living things: "God takes care of everything that is wild but he only half takes care of tame things."[40] As a result of God's loving attendance, life in the wilderness is literally care-free in a way that is unimaginable in the social world of men and women. To experience nature is to experience the "pure and the beautiful," which can only be the direct expression of God's will.[41] Nature is attractive and important not because of its material (or even aesthetic) qualities, but because it expresses the complete spirituality of perfect love—God's love.

Aside from the pure and the beautiful, Muir also discovers God's power in nature. He was most ecstatic when he found himself in the midst of a violent storm. Nature may have a "warm heart,"[42] but the warmth is paradoxically expressed most perfectly when accompanied by a display of God's overwhelming might. "Yet all that we call destruction is creating, and it is just where storms fall most violently that the greatest quality of beauteous, joyous life appear."[43] Storms actually serve, for Muir, as the best metaphor of his experience of God's love in the wilderness. We know that we are becoming more like the wild things—for which God cares completely—when we can "lean fully and trustingly on Nature," not only for the "infinite tenderness," but also for the equally infinite "power of her love."[44] The spiritual awakening that Muir undergoes in Yosemite is much like the ac-

tual storms he witnesses there. "Nature like a fluid seems to drench and steep us throughout, as the whole sky and the rocks and flowers are drenched with spiritual life—with God."[45]

It would obviously be a mistake to underestimate the fundamentally religious quality of Muir's comprehension of nature.[46] What he claims to have discovered in his wanderings in the wilderness is nothing less than immortality. In *A Thousand Mile Walk to the Gulf,* he exclaims, "I joyfully return to the immortal truth and immortal beauty of Nature."[47] Not only does he observe this truth and beauty, but by putting the world of civilization behind him he is able to actually become a part of this natural world. "Presently you lose consciousness of your own separate existence: you blend with the landscape, and become part and parcel of nature."[48] Time stands still when one is able to cultivate an unmediated relationship with wilderness. "One day is as a thousand years, a thousand years as one day, and while yet in the flesh you enjoy immortality."[49] It is ultimately salvation itself that Muir finds in nature.

The extremism of Muir's religious embrace of nature is largely the result of his rebellion from a very painful childhood, inflicted by his tyrannical, radically Calvinist father. There were physical beatings and excessive work loads; as a child, Muir almost died from seeping gas and lack of oxygen while being forced by his father to dig a seventy-foot well. Moreover, the elder Muir's Calvinism led him to object to the worldliness of his son's primary talents and interests—his mechanical genius and his love of nature. Even after he had fled his father's house, Muir suffered from the extreme disapproval and moral bullying of his father. For example, after reading Muir's published account of a storm on Mount Shasta, his father sent him a letter in which he self-righteously attacked Muir's mountaineering and literary efforts:

> Were you as really *happy* as my *wish* would make you, you would be permanently so in the *best* sense of the word. I received yours of the third inst. with your slip of paper, but I had read the same thing in "The Wisconsin," some days before I got yours, and then I *wished* I had not seen it, because it harried up my feelings so with another of your hair-breadth escapes. Had I seen it to be *God's work* you were doing I would have felt the *other* way, but I

> knew it was not God's work, although you seem to think you are doing God's service. If it had not been for God's boundless mercy you would have been cut off in the midst of your folly. . . . It is no use to look through a glass darkly when we have the *Gospel* and its *fulfillment*, and when the true practical believer has got the Godhead in fellowship with himself all the time, and reigning in his heart all the time. . . . You cannot warm the heart of the saint of God with your cold icy-topped mountains. O, my dear son, come away from them to the spirit of God and His holy word, and He will show our lovely Jesus unto you, who is by His finished work presented to you, without money and price. . . . And the best and soonest way of getting quit of the writing and publishing your book is to burn it, and then it will do no more harm either to you or others.[50]

It is not especially surprising that Muir revolted against a father who could respond to his work in this manner. Nor is it surprising, however, that Muir's own beliefs, although conceived in rebellion from his father's Calvinism, retain crucial similarities with it. Muir disavowed Calvinism and retreated to nature, but his relationship with nature is perhaps one that only a Calvinist could truly appreciate. Muir's nature is not earthy or sensuous or material in any significant sense. Rather, what he worships is a purely idealized, spiritual nature. As Catherine Albanese notes, "Muir's idealism provided a way to accommodate a former Calvinism without acknowledging it. If the world in all its alluring beauty pointed beyond itself to spirit, then . . . it could be safe to contemplate matter without guilt or stain. And so long as one held on to the emblematic theory that nature made sense as sacramental sight of spirit, it could be safe to relish the splendor of mountain and forest."[51] Like all rebellions, Muir's was deeply influenced by the character of what he was rebelling against: His pantheistic worship of nature, and his rejection of the "pagan slavery" of American urban society, grew out of and mirrored a Calvinist repudiation of the sensuous and material world.

For Muir's father, the nature to which his son had fled was the world of "icy-topped mountains," of brute matter. His son's sin was his rejection of true Christian community and spirituality, and he saw no meaningful difference between Muir's embrace of nature and liv-

ing a life of sensuality in human society—both glorified the flesh rather than the spirit. For the son, however, the wilderness was a spiritual community precisely because it taught values that transcended worldly materialism. Although Muir expresses an occasional fear of other creatures and a longing for human companionship (Muir mentions both his loneliness and his fear of Florida's alligators in his *Thousand Mile Walk*[52]), the overall lessons of his wanderings are of "divine harmony"[53] and the "friendly union, of life and death so apparent in Nature."[54] As such, the experiences teach Muir not only to overcome the fear of death and injury from other animals, but to lose interest in material concerns generally. The wilderness represents a community of creatures united in their subjection to the divine hand of God. As we have seen, the more wild the creatures, the more completely they are subject to God's care.

If nothing else, Nature's grandeur, immortality, harmony, and power reveals the hubris of conventional human self-importance. As Stephen Fox writes, "In reading his Sierra landscapes Muir was overwhelmed by a sense of human insignificance."[55] In the context of nature, human life stands in a relationship of equality with all other living plants and creatures—all are equally subject to the natural processes created and controlled by God. "But what is the size of the greatest man, or the tallest tree that ever overtopped a grass! Compared with other things in God's creation the difference is nothing. We are all only microscopic animalcula."[56] Muir ingenuously refers to animals as "animal people" who are "intimately related to us,"[57] because all creatures must equally submit (differences of degree being relatively insignificant) to the overwhelming power of nature.

For Muir, the religious essence of nature is the antithesis of life in American society. "Toiling in the tread mills of life we hide from the lessons of nature."[58] Life in society is materialist and mundane, the very opposite of the religious transcendence nature can offer. While "there is no daylight in towns,"[59] Muir frequently refers to the mountains as the source of our spiritual renewal: "In every country the mountains are fountains, not only of rivers but of men."[60] Whatever obligation Muir feels toward his fellow men and women is met by, in Fox's words, "preaching the mountains" in the hope that the "multitude would come and be baptized."[61] Muir's writings are meant to proclaim the religious qualities of nature and to invite his readers to

experience nature on these terms. When describing Yosemite, for example, he writes, "It was a special church or temple in which all the landscape loving world should do extraordinary worship."[62] The purpose of *Our National Parks* is to encourage people to visit the parks and "get them into their hearts, so at length their preservation and right use might be made sure."[63] To the extent that Americans are taking his advice and sharing his view of nature, the crude "barbarism" of society is being challenged by the sublime: "The tendency nowadays to wander in wilderness is delightful to see. Thousands of tired, nerve shaken, over civilized people are beginning to find out that going to the mountains is going home; that wilderness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life."[64]

For Muir, then, the primary purpose of nature is not so much to service the practical needs of American civilization as it is to offer an alternative, essentially religious source of values and experiences. Although Muir was not entirely opposed to scientific management—for example, he approved of the artificial breeding of salmon,[65] and in *Our National Parks* he praises the "dawn of a new day in forestry"[66]—he never believed that the principal value of nature is to be found in the useful resources it provides for society and the economy. In a close paraphrase of Thoreau's famous claim that "in wildness is the preservation of the world," Muir writes, "In God's wildness lies the hope of the world—the great fresh, unblighted, unredeemed wilderness. The galling harness of civilization drops off, and the wounds heal ere we are aware."[67] Wilderness is precious as the fount of a truer life and purer wisdom than society can ever provide.

Catherine Albanese refers to Muir as Thoreau's "celebrated spiritual heir in the preservationist movement,"[68] and it is certainly true that Muir modelled his own writings on Thoreau's and generally traced his intellectual roots to New England transcendentalism. Nonetheless, Muir's biographers are quick to point out that Thoreau and Ralph Waldo Emerson were ultimately too civilized for Muir. "Compared to Thoreau," writes Nash, "who cringed at an excess of wildness and idealized the half-cultivated, Muir was wild indeed."[69] Fox also notes that "both Emerson and Thoreau seemed insufficiently wild" to Muir.[70] And when Muir was able to meet Emerson in Yosemite, the event was a tremendous disappointment. Muir looked forward to

Emerson's visit, since he "felt sure that of all men he would best interpret the sayings of these noble mountains and trees."[71] Upon arrival, however, Emerson and his companions balked at the idea of actually spending a night camping in the mountains. From Muir's perspective they were interested in gaining only the most superficial impression of what these mountains had to teach. "[Emerson's] party, full of indoor philosophy, failed to see the natural beauty and fullness of promise of my wild plan [to spend the night outdoors], and laughed at it in good-natured ignorance, as if it were necessarily amusing to imagine that Boston people might be led to accept Sierra manifestations of God at the price of rough camping."[72] In all, the episode was a "sad commentary on culture and the glorious transcendentalism."[73] The crowning blow for Muir must have been when he later received a letter from Emerson encouraging him not to stay too long in solitude—as if this solitude had not been the source of his inspiration to begin with![74] Emerson was too settled into armchair philosophy to appreciate and experience true wilderness; he was past his prime, and was now as a child in the hands of his affectionate but sadly civilized friends."[75] And Thoreau's wanderings around Concord and his experiment at Walden must have seemed a far cry from the true wilderness Muir sought, worshipped, praised, and defended.

Muir differs from his eastern forebears, however, not simply in some measure of "wildness." Nor does he merely take Thoreau's example to its logical extreme. Rather, Muir breaks in fundamental ways with Thoreau's views regarding the nature of wilderness and its value for human beings. For Thoreau, "wildness" must be more than a refuge from society; it must also serve as a guide for a reformed and just society. For Muir, wilderness represents not so much the moral inspiration for a reformed society as the alternative to the human community in any form. Muir replaces Thoreau's interest in Native Americans and the early European colonists in America—that is, in those who lived in intimate contact with the natural world—with a love for a wilderness altogether lacking a human presence. Thoreau praises the European farmers who settled the lands of America; Muir refers to "the invading horde of destroyers called settlers."[76]

As we have seen, Muir's nature is the source of an intensely religious individual salvation, while for Thoreau it was the potential tutor

of human communities. Muir shares with Thoreau a host of attitudes toward the natural world—that it is basically benevolent and should be treated with profound respect, for example—but under Muir's influence, the preservationist movement lost an overtly political and communitarian focus. Instead, the nature that is to be respected and protected is a nature without people. It can address only individual spiritual needs, not common political problems; in fact, nature's distance from human influence is what makes it so attractive, pure, and divine. The interest in political problems falls away altogether (except when society threatens nature), and American society is viewed as something to be combatted in the name of an alternative set of individual values rather than criticized and reformed according to some more "natural" social order. As nature takes on the role of spiritual savior for Muir, so it also becomes increasingly silent as a guide for social life. Wilderness preservationists fought their first political battle against progressive conservationism under Muir's leadership, using a discourse that effectively removed nature from the human world. In nature, individuals could (and should) experience the transcendent and the sublime, but no longer would they find there the type of knowledge that spoke directly to their social concerns. As nature became for Muir a religious and not just a moral force, so it became increasingly irrelevant to the mundane and the material components of human life.

Elements of Muir's criticism of American society and arguments for wilderness preservation emerge unmistakably in contemporary environmentalist literature. Bill McKibben, for example, in his best-selling book *The End of Nature*, has mourned the passing of Muir's strong sense of nature as a realm apart from, and superior to, human society. Modern science and technology have created tremendous environmental problems and have altered and intruded on almost every imaginable natural process. As a result, McKibben argues, "We have ended the thing that has, at least in modern times, defined nature for us—its separation from human society."[77] This makes it next to impossible for us to think of the earth, as Muir did, as "a museum of divine intent,"[78] or to understand nature as "the separate and wild province, the world apart from man to which he adapted, under whose rules he

was born and died."[79] The result has been a radical disenchantment and demystification of the world, cutting us off from greater meanings and values than those encountered in merely human, artificial settings. McKibben writes that "the comfort we need is inhuman," and this comfort can no longer be found in our contrived environment.[80]

In addition, as nature has become increasingly artificial, so too have we become unable to imagine nature as having integrity or value outside of a human context. "The idea that the rest of creation might count for as much as we do is spectacularly foreign, even to most environmentalists."[81] If we can rediscover a natural realm, perhaps beyond our own world, that holds an independent mystery and wonder, we may recover an awareness of human limitations that can teach us to live within the confines of the natural world.[82] As Peter Reed writes, "We have lost, in our daily lives at least, a precious sense of our own insignificance."[83]

Others, too, have been deeply sympathetic to the theme found in Muir's writings that humans have radically inflated their own importance in relation to the rest of creation. The legacy of progressive conservationism is an emphasis on the scientific management and control of the natural world for human benefit. However, since the 1960s, a number of writers and activists in the environmentalist movement have perceived a practically dangerous and morally indefensible human arrogance in the way society generally, and progressive conservationism in particular, exploit and control the environment. Lynn White, in an influential paper published in 1967, argues that the ecological crisis is largely due to the extreme human-centeredness of Christianity. More than any of the world's major religions, modern Christianity inclines toward the almost complete subordination of nature to human interests: "Christianity is the most anthropocentric religion the world has seen."[84] In White's view, the first step in solving our environmental problems must be to devise a new religious sensibility that renounces nature's servile status. "Hence we shall continue to have a worsening ecologic crisis until we reject the Christian axiom that nature has no reason for existence save to serve man. . . . Since the roots of our troubles are so largely religious, the remedy must also be essentially religious, whether we call it that or not."[85] To this end, White proposes St. Francis as an appropriate patron saint for ecolo-

gists,[86] since he alone in the Christian tradition took seriously the moral, even spiritual, value of nonhuman life. White's point is that by deflating our sense of the unique and higher value of human life relative to the rest of creation, we may be able to design our society so as to respect nature and live in a more acceptable balance with it.

In a similar vein, David Ehrenfeld attacks modern society's belief that human knowledge and technology are capable of satisfactorily controlling and developing the environment to meet human needs and desires. Arguing that "we must come to terms with our own irrational faith in our own limitless power,"[87] Ehrenfeld concludes that there "is no true protection for Nature within the humanist system—the very idea is a contradiction in terms."[88] Like Muir, Ehrenfeld believes that only when we understand our human bounds will we begin to treat the natural world more responsibly. And nature would not be the only beneficiary of such an attitude change. "Those who can understand the limitations of humanity can partake more than others of the creation of God, and in this there is both satisfaction and a different kind of power. We yearn to see the human spirit freed once again from the fetters of self-adulation, so that it may soar aloft if favorable winds occur."[89] For Ehrenfeld, as for White and Muir, an appreciation of the natural world, and right treatment of it, require a greater sense of humility and human equality with the rest of creation than is found in our conventional beliefs and practices.

The theorists who have perhaps done the most to revive Muir's sense of the spiritual importance of nature are a loose grouping of environmentalists who refer to themselves as "deep ecologists." Their most visible American publicists are Bill Devall and George Sessions. Drawing on the work of Norwegian philosopher Arne Naess, Devall and Sessions aim to lay the groundwork for a new "ecological consciousness."[90] The problem with what they call reformist environmentalism, or, in the language of this study, the progressive conservation tradition, is that in the final analysis such environmentalism bolsters an anti-ecological attitude toward the natural world. As Devall writes, "In using reformist arguments . . . activists help to legitimate and reinforce the human centered (anthropocentric) world view of decision makers."[91] The goal of deep ecology is not just to criticize liberal and reformist ecologists, but to pursue the more ambitious project of attacking the underlying worldview of contemporary society. From this

perspective, what we face today "is not so much a crisis of the environment as a crisis of character and culture."[92]

What is the guilty defect in the "character and culture" of modern society? In the terminology they would use, the central problem is the anthropocentrism and humanism that informs contemporary civilization; in other words, we are selfish, and the society we live in reflects and institutionalizes this selfishness.[93] Because of our belief that human interests are fundamentally more important than the interests, needs, and integrity of nature, we have shamelessly exploited and damaged the natural world. Science and technology have become dangerous tools in the hands of such a powerful and self-absorbed species as our own, and they will continue to menace the environment until they are tamed and redirected by a radical shift in human consciousness and values.[94] This attack on the selfishness of society reaches its greatest (and least credible) heights in Devall's work, when he condemns the contemporary era as an "Age of Nihilism,"[95] and equates students of natural resources management with the guards in Nazi death camps.[96] Less flamboyantly, Devall and Sessions suggest that at the very least our anthropocentrism has created a profound imbalance between human interests and the interests of the rest of the natural world. "Excessive human intervention in natural processes has led other species to near-extinction. For deep ecologists the balance has long since been tripped in favor of humans. Now we must shift the balance back to protect the habitat of other species."[97] Since they believe that *all* of the dominant "Western views" of nature suffer from arrogance and selfishness,[98] deep ecology offers an alternative biocentrism that can potentially reorient human activities, lifestyles, and consciousness in an ecologically sound direction.

Devall and Sessions believe that humans as well as nature would benefit from such a reorientation. Besides encouraging us to do unjustifiable violence to other living things, anthropocentrism has perverted human life. Devall attacks what he calls the "imperialism of modernity and urbanism" because it is anti-ecological and it destroys human lives.[99] Again employing hyperbolic rhetoric, he claims that the "modern city is a necropolis—a vast city of the dead."[100] Deep ecology intends not only to liberate nature from human exploitation, but to liberate humans from their own perverse lifestyles and thinking.

The two "ultimate norms" of deep ecology, then, are the promotion

of "self realization" and "biocentric equality."[101] Self-realization is to be achieved by widening our understanding of "self" to include the natural world—apparently a twofold process of overcoming a narrow, egoistic understanding of self-interest, and simultaneously developing a sympathy with other living things.[102] "As long as we think of our *self* in a narrow, 'me first,' self-serving way, we will suffer. When we put the vital needs of other beings above our narrowly conceived self-interest, then we discover that our broader and deeper needs are met in the context of meeting the needs of the 'other,' because we have broadened and deepened our self to include the other into ourselves."[103] This "maturity and growth"[104] of the self can lead to an "all-inclusive Self-realization in the sense that if we harm the rest of Nature then we are harming ourselves. There are no boundaries and everything is interrelated."[105] As Devall puts it, deep ecology's grasp of self-realization teaches that "there is a literal intermingling of person and Other, of mind-in-nature."[106] This "expanded, deepened self is not impersonal but transpersonal," and to discover it is a "part of the transforming process required to heal ourselves in the world."[107]

It is ironic that the deep ecology criticism of anthropocentrism and selfishness leads to such a strong emphasis on personal "healing" and self-interest—even allowing for the expanded sense Devall and Sessions attempt to articulate. Biocentric equality, in fact, is less a separate norm of deep ecology than an extension of the notion of self-realization to all of nature. "The intuition of biocentric equality is that all things in the biosphere have an equal right to live and blossom and to reach their own individual forms of unfolding and self-realization within the larger Self-realization."[108] The central claim of deep ecology, therefore, is that this idea of self-realization fosters not only human satisfaction but a proper ecological orientation as well. "The positive message of deep ecology is maximal Self-realization of all beings."[109] The trick is to recognize that ecological well-being and human well-being are essentially the same thing, and this can be done through an expanded understanding of the relation between the "self" and nature.

Deep ecology is basically a contemporary expression of the religious, even ecstatic language found in Muir's writings. For Muir, nature offered a spiritual experience of transcendence, immortality, and losing one's self in the greater majesty of creation. Devall and Ses-

sion's language is updated, but they too are struggling to express a similar transcendence in which we "become one" with nature, forsake our narrowly defined individual interests, and identify our own good with the natural world as a whole. Although deep ecology has grown out of genuine environmentalist concerns, protecting the environment has become for these theorists a happy consequence of an even more fundamental interest in personal satisfaction. This is nicely illustrated by Devall's discussion of his own development as a deep ecologist. His involvement in environmental issues began with political activism aimed at enlarging the boundaries of Redwood National Park in the 1970s.[110] His increasing dissatisfaction with reform environmentalism, however, turned him in the direction of deep ecology. He concludes his book by asserting that winning and losing conventional political battles no longer has meaning for him and that the practice of deep ecology principles and lifestyle has become his only objective. "Life is a war dance and in the dance there is meaning. Practicing is the end in itself. If through practicing one comes to a kind of deep ecology philosophical position from exploring the broad and deep self, then well and good. If not, then keep practicing."[111] The pragmatic concern with the protection of nature has become secondary to the ultimate goal of personal salvation from an alienating and repulsive human world.

The inherently religious, even antirational, quality of this liberation is suggested by the way deep ecology principles and insights are discovered. Although Devall and Sessions claim that deep ecology must be "both rational and spiritual,"[112] they admit that their norms "cannot be fully grasped intellectually but are ultimately experiential."[113] This experience can be aided by pursuing simplicity of lifestyle[114] and by studying anthropological literature about premodern, primal, and small-scale cultures,[115] but the insights of deep ecology are primarily derived from the direct experience of nature and the honest inspection of intuitions. As Devall notes, deep ecology is "best expressed, not explained."[116] Only by contact with nature can we "find our bearings,"[117] have "earth bonding experiences,"[118] and rediscover the "direct land wisdom" once known by primal peoples and now obscured by modern science.[119] Although the content of deep ecology is apparently very fluid and open to individual interpretation—Arne Naess invites people to invent their own personal "ecosophy" from their par-

ticular experiences[120]—it presumably will reinforce a universal intuition about the "sacred space" of wilderness[121] and promote the rediscovery of the "enchantment of Gaia [Mother Earth], the sacredness of Gaia."[122] And, to use a favorite word from this literature, deep ecology will demonstrate the "maturity" of people who live in greater harmony with nature than contemporary society does. Although Devall is at pains to defend deep ecology from the charge that it is a new religion or cult and to insist that their only purpose is to fight against "thoughtless and mindless behavior,"[123] by the end of his book he admits that deep ecology is "primarily a spiritual-religious movement."[124] Like Muir's radical transcendentalism, deep ecology is fundamentally a personal religious experience beyond the realm of rational defense and explanation.

Although Devall and Sessions attempt to outline the political implications of deep ecology, the private character of this perspective reduces its relevance for discussions of political and collective life. When Devall admonishes us to experience our "sense of place" in the environment, what is most striking is that no one else seems to be there.[125] When he tries to describe the model of a mature human being—one who is fully integrated into the natural world—he conjures up that most solitary of mythical creatures, Sasquatch (Big Foot): The ideal of Sasquatch teaches "a more mature kind of human, a future primal being" who can show "us one possibility to a more fully developed, integrated way of dwelling on this earth."[126] This is obviously not an auspicious position from which to evaluate the nature of human society and political life.

Despite the asocial, even antisocial, implications of deep ecology, Devall and Sessions argue that there is a "natural social order" in which "people refrain from dominating others."[127] This social order consists of a "self-regulating community"[128] that allows "genuine freedom for humans and nonhumans" alike.[129] These communities will be located geographically within bioregions, rather than within artificially contrived political boundaries, and political power will be decentralized and democratic. "The real, organic community is simple in material goods but rich in individuation, communalism, awareness of the way things are, in affectional and spiritual connections with a specific landscape."[130] In the long run, deep ecology aims at a radical conversion of human consciousness to make way for a totally new (or

perhaps long-forgotten) social form. "The basic social thrust of the deep, long-range ecology movement is transformation of the masses into a new kind of society. The aim is not to create a utopia of experts, a perfectly managed technocratic state, but to empower more and more ordinary people with their ecological self and to empower grassroots movements with solidarity and effectiveness when facing vast bureaucracies and hierarchical organizations."[131]

Presumably, when individuals achieve a deep ecology understanding of self-realization, a just, pastoral, anarchic society will become a possibility. Although we find here a partial vision of what a just social order might involve, deep ecology's disinterest in political questions prevents Devall and Sessions from developing this vision in more detail or discussing any of the obvious problems of transition, institutional forms, justice within these communities, how individuation and communalism will both be respected, and so forth.[132]

There is another and much less optimistic dimension to deep ecology's portrayal of the possible relationship between human communities and the greater "biotic community." As mentioned, Devall and Sessions believe that human interests have for too long ranked higher than those of nature and that the time has come to "shift the balance back" to safeguard other species. Elaborating on this, Devall observes that "we lack compassion and seem misanthropic if we turn our backs on hundreds of millions of humans who reside in megalopolises. However, when a choice must be made, it seems consistent with deep ecology principles to fight on the side of endangered plants and animals."[133] These comments reveal a significant ambivalence in the deep ecology position. On the one hand, the authors argue that if the needs of people and nature are properly understood, there are no necessary conflicts between humans and the natural world: We would simply realize a commonality of interests between ourselves and the environment, because "there are no boundaries and everything is interrelated." On the other hand, they correctly recognize that there are potentially very serious collisions between human needs and interests and the protection of the environment—especially in the pristine and wild form that deep ecology advocates.

Even if it is true that exploration of the "ecological self" promises to liberate individuals and the natural world, this opportunity is limited, even under ideal conditions, to those who are fortunate enough to be

able to escape the life of the megalopolis. In their more frank moments, Devall and Sessions imply that their "biotic equality" may require massive sacrifices (perhaps the lives of large numbers of urban dwellers?) by the human species in order to regain an appropriate balance with nature. Devall and Sessions do not forthrightly acknowledge the devaluation of human life implied by their position—nor, indeed, how it undermines their own theory of self-realization. However, their occasional recognition of the potential for conflict between humans and the wilderness indicates at least a partial appreciation of the possible incompatibility of deep ecology's two basic norms—self-realization and biocentric equality. The primary message Devall and Sessions want to convey is one of harmony and liberation—we can experience complete self-realization along with the rest of creation. The secondary and more sober message they are periodically forced to acknowledge is one of human limitation and sacrifice inspired by the recognition of the equality of all living things.

This ambivalence raises conceptual problems for deep ecology, which are illustrated in a recent response by another deep ecologist, David Johns, to the criticism of Ramachandra Guha, an Indian environmentalist. Guha's position is that the emphasis on wilderness preservation by radical American environmentalists and deep ecologists does real damage to both the environment and the people of India (and the rest of the Third World). "What is unacceptable are the radical conclusions drawn by deep ecology, in particular, that intervention in nature should be guided primarily by the need to preserve biotic integrity rather than by the needs of humans."[134] Our most significant environmental problems, Guha contends, have little or no relation to the contest between "anthropocentrism" and "biocentrism." Rather, environmental degradation tends to be caused by overconsumption in the First World and among Third World elites and by worldwide militarization. "Neither of these problems has any tangible connection to the anthropocentric-biocentric distinction. . . . If my identification of the major dangers to the integrity of the natural world is correct, invoking the bogy of anthropocentrism is at best irrelevant and at worst a dangerous obfuscation."[135] Focusing on wilderness preservation in the Third World is actually a form of imperialism in which the interests and values of western elites end up harming native populations. Tiger preserves in India are an example of western-

imposed conservation practices that have done little but displace and cause misery for the peasants excluded from these areas.[136] Guha concludes that the "wholesale transfer of a movement [deep ecology and wilderness preservation] culturally rooted in American conservation history can only result in the social uprooting of human populations in other parts of the globe."[137]

Johns attempts to defend deep ecology from this rather damning attack, and in so doing he unwittingly expresses the oscillation in deep ecology between human self-realization and outright misanthropy. Johns first makes the predictable argument that it is not wilderness apart from the human community that deep ecology is promoting, but rather a human community appropriately integrated into the natural environment. "Given the human-nature relationship that deep ecology espouses—that to be effective in allowing nature to heal itself, one must also heal one's own self and community—it seems odd to suggest that deep ecology is unconcerned with human communities and their place in nature."[138] Deep ecology, by teaching a better way of living in nature, actually leads to greater human empowerment than current societies can provide.[139] "Biocentrism offers us back our body by recognizing that the Earth is our real community—that by healing our split from it, by healing the split between cortex and heart, and by healing nature within, we can begin to heal all of nature."[140] The biocentrism of deep ecology lights the path toward a "fundamental transformation" for human society "which stresses the centrality of finding our place *in* nature."[141] Guha is wrong to reject biocentrism, for it is precisely what holds out hope for a resolution between human interests and the needs of the environment.

Yet Johns also points out that biocentrism refuses to grant a privileged position to human life within the greater scheme of nature.[142] In addition, he observes that "in much of the world almost any human impact is destructive of the biosphere."[143] And this causes a problem, because "if nonhuman nature is valued for itself, if the integrity of the biosphere as a community is valued for itself, then human consumption which disrupts it is wrong: it would constitute overconsumption."[144] Thus, "in practice much of the Earth cannot be used for permanent human settlement" because of the disruptions such settlement produces.[145] It is not clear why *any* human settlement of the earth is acceptable to Johns—since all human activity disrupts the bio-

sphere to some degree—but certainly his conception of an appropriately integrated human community is so hypothetical as to be meaningless when evaluating the problems of real human beings presently in the world. "There is, I believe, widespread agreement among . . . deep ecologists that fewer humans (and especially less extensive occupation of the globe) as well as equitable and drastically curtailed consumption are essential to restoring the balance of the planet."[146] Since the peasants that Guha is concerned about are obviously too impoverished to limit their consumption further, a skeptic might be tempted to suspect (presumably contrary to Johns's intention) that perhaps they are examples of some of the people who should not be taking up so much space on the globe.

Be that as it may, even though Johns has promised that deep ecology teaches the unity between human and the natural environment's interests, he now correctly observes that "humans compete for habitat with other species, threaten their destruction, and otherwise degrade the environment, even diminishing its carrying capacity."[147] If Johns believes that this competition can be eliminated in some future society, it still tells us little or nothing about what to do for Guha's peasants who are struggling for survival today. At the very least, Johns's discussion will not persuade Guha that the interests of the Third World will carry sufficient weight in the moral evaluations of a deep ecologist, or that deep ecology has a coherent program for protecting both the environment and the interests of human communities.

Numerous other objections can and have been raised to deep ecology: It is guilty of grossly romanticizing the experience of "primal peoples";[148] even if its anthropological portrait were accurate, it would provide very little practical guidance for the mass of humans living in contemporary urban industrial society;[149] deep ecology promotes a type of knowledge that is entirely beyond rational human discourse and debate;[150] and the biocentrism embedded in deep ecology is actually a remarkably self-interested and ultimately anthropocentric position.[151] In short, deep ecology appears to have only a vague environmentalist program outside of a generalized commitment to wilderness preservation, it advocates a philosophical position that has yet to receive a strong rational defense and that is quite possibly internally inconsistent, and it makes claims about the human condition that seem to be based on weak empirical evidence at best.

What, then, has constituted the strength of deep ecology's appeal? It has primarily stemmed from deep ecology's criticism of contemporary consumer society and thus its alliance with the broader tradition of Thoreau, Muir, and pastoral environmentalism. As Tim Luke writes, "Deep ecological self-realization is to be the antithesis of consumerism,"[152] and it promises to displace the crude materialism and environmental exploitation found in modern society. Deep ecology also offers an alternative to the utilitarianism of progressive conservationism, as it looks to nature, rather than human desires, for philosophical first principles and moral guidance. Convinced that human desires have generated the massive environmental deterioration they find in contemporary society, deep ecologists contend that nature teaches the type of humility and restraint needed for a more environmentally satisfactory, and ultimately humanly satisfying, life.

The criticisms of society and the alternate visions that are actually offered, however, suffer from having been inspired more by Muir than by Thoreau. When we move from the understanding of nature found in Thoreau to that in Muir and deep ecology, we see that the environment has been depopulated; wilderness has replaced the pastoral and agrarian as the ideal. What had originated in Thoreau's writings as a radical political critique of industrial civilization has been transformed by Muir and his latter day followers into an individualized program for personal happiness and salvation. For Thoreau, nature provides the material for philosophical reflection and the discovery of an alternative political community; for Muir, nature is a medium through which to receive grace; for deep ecologists, Muir's spiritual goal has been translated into the significantly less inspiring ideal of "self-realization." In Thoreau's writings, nature calls us to a political rebellion and reconstruction. In the version of the pastoral environmental tradition that grows out of Muir's revision of Thoreau, this call to rebellion suspiciously resembles one more lifestyle option offered by the consumer society from which pastoral environmentalism is rebelling in the first place.

Others working within pastoral environmentalism as it has evolved under Muir's influence have taken this tradition in another direction. Although the deep ecologists claim that they are both attacking anthropocentrism and developing a new and environmentally sound conception of self-realization, we have seen that these two concerns

finally collapse into an overwhelming interest in self realization. For those who share the suspicion that human selfishness is fundamentally responsible for the deterioration of the environment, a more rigorous philosophical defense of biocentrism—one separated from the deep ecological interest in self-realization—is necessary.

5
Biocentrism

> Obligations have no meaning without conscience and the problem we face is the extension of the social conscience from people to land.
>
> —*Aldo Leopold*

> We are searching for an ethics that appropriately "follows nature."
>
> —*Holmes Rolston III*

> Conformity to nature, has no connection whatever with right and wrong.
>
> —*John Stuart Mill*

Kirkpatrick Sale begins his *Dwellers in the Land* with the observation that the ancient Greeks viewed the "earth mother," or Gaia, as an almost living, purposeful organism.[1] Like many other environmental writers and activists, Sale finds this image of a live earth to have profound moral implications. If the earth is an organism, or a superorganism, it must command our moral respect in a much more powerful and compelling way than if it is inert material. In the former case, the earth has the moral status not only of a living being, but perhaps of the most significant living being—the mother earth who contains within her life the lives of all other creatures. In the latter case, the earth has only instrumental value for the forms of life found upon it. The "Gaia thesis" has become an important shorthand in popular environmental literature for the superior moral status of the earth as a whole over all particular forms of life, our own included. David Oats exaggerates only slightly when he refers to the idea of the earth as a superorganism as the "major myth" of ecologism.[2]

For environmentalists like Sale, what actually transforms this myth into empirical description is the development of the Gaia thesis by scientists such as J. E. Lovelock and Lewis Thomas. As Thomas writes, "Viewed from the distance of the moon, the astonishing thing about

the earth, catching the breath, is that it is alive. . . . It has the organized, self-contained look of a live creature."[3] Lovelock has attempted to give the metaphor scientific substance by developing the hypothesis that the earth is, in fact, an autonomous system that can literally be considered alive: "The entire range of living matter on Earth, from whales to viruses, and from oaks to algae, could be regarded as constituting a single living entity, capable of manipulating the Earth's atmosphere to suit its overall needs and endowed with facilities and powers far beyond those of its constituent parts."[4] For Lovelock, the "biosphere is a self-regulating entity with the capacity to keep our planet healthy by controlling the chemical and physical environment."[5] Rather than being a delicate and static balance of natural relationships, the biosphere is actually a very "tough, robust, and adaptable entity" that is constantly evolving and adjusting to new conditions within the overall system.[6]

Sale sees Lovelock's scientific work as a reinforcement for the ancient appreciation of the earth as a living being—a confirmation of a deep environmentalist morality. In light of Lovelock's and Thomas's work, Sale concludes his book by arguing that "we must learn to make the idea of the goddess Gaea an intimate part of—no, I want to say, in some sense *the whole of*—our lives, so that there is no moment of our passage, no point in our decisions, when we are not conscious of her imperatives, her needs, her treasures."[7] In Sale's view, Lovelock's Gaia thesis suggests that there is an intrinsic value and moral integrity to the natural world that we have too frequently ignored, but that can now be rediscovered to inform a new and progressive environmentalist lifestyle, commitment, and social order.

Unfortunately, it is not at all clear that Sale has drawn the correct moral lesson from Lovelock's postulate. In fact, Sale's argument is startlingly at odds with the ecological views of Lovelock himself. Lovelock not unreasonably concludes that his own ideas suggest that human degradation of the environment is not an especially serious threat to the overall health of the living earth. If Gaia is a resilient living system, "the evidence for accepting that industrial activities either at their present level or in the immediate future may endanger the life of Gaia as a whole, is very weak indeed."[8] The earth, quite simply, is capable of taking care of itself. Lovelock argues that the concept of pollution is "anthropocentric and may even be irrelevant in the Gaian

context."[9] The environmental disturbances of the biosphere produced by modern civilization merely cause the earth to readjust to accommodate them. This does not mean that we may not harm ourselves by damaging our current niche within the ecosystem, but this is very different from viewing our activities as a threat to the "life" of the earth. Lovelock is actually quite skeptical about environmentalists (he refers to environmental politics as a "lush new pasture for demagogues"[10]), and he is confident that industrial society is capable of recognizing environmental problems and correcting them: "When urban industrial man does something ecologically bad he notices it and tends to put things right again."[11] In short, the primary scientific exponent of the Gaia thesis draws environmental conclusions that are much less disturbing for contemporary society than those drawn by environmentalists like Sale.

The lesson, of course, is that even if Lovelock's hypothesis is correct (which is by no means clear[12]), the moral inferences are far from self-evident. If the earth is a resilient superorganism, it may suggest the need for a profound humility and a strong commitment to preservationism out of respect for the natural environment—or it may point to a much more complacent conclusion about the ability of this superorganism to protect itself regardless of our actions. Either view appears to be consistent with the Gaia thesis, though neither appears to be demanded by it.

The problem that Sale is trying to solve has become central to contemporary environmental ethics: What, if any, intrinsic value can be found in the natural world? For those who wish to break with the progressive conservation tradition, it is essential to locate values in nature that are of greater moral significance than the instrumental or utilitarian ones emphasized by Pinchot and his heirs. If nature can be reasonably thought of as the bearer of intrinsic value, not as deriving all of its worth from human utility, then the case for respecting and preserving nature becomes much stronger.

A number of different approaches have emerged to demonstrate the inherent value of nature. We have already examined the goal of deep ecologists to develop an understanding of the moral status of nature that breaks qualitatively with the view found in the progressive conservation tradition—as they see it, to replace anthropocentrism with biocentrism. Although the core of their project is to discover a deeper,

noninstrumental value in nature, the attempt is marred by its apparent primary interest in human self-realization and by its ultimate appeal not to reason or argument but to the incommunicable experience of nature. Both of these problems, it should be remembered, arose when deep ecology secularized and modernized Muir's essentially religious worship of the natural world.

Although deep ecology gets sidetracked in its effort to discover the intrinsic value of nature and the philosophical structure of a biocentric worldview, these questions have been investigated much more rigorously by other environmental philosophers. Recently, for example, Eugene Hargrove has suggested that the intrinsic value of nature is to be found in its aesthetic qualities: "The duty to promote and preserve beauty arises out of the recognition that beauty, whether experienced or not, is a good."[13] Hargrove's argument is that contemporary attitudes toward wilderness preservation have evolved from the aesthetic sensibilities of nineteenth-century scientists,[14] and this intellectual heritage provides the foundation for a satisfactory environmental ethic. If we regard natural objects similar to the way we regard works of art, we will avoid the crudely utilitarian understanding of nature found in the progressive conservation tradition. "If natural objects are once again treated like art objects, as intrinsically valuable entities, the dilemma of whether or not to consume natural beauty disappears."[15]

Hargrove's substantive project is twofold. First, he wishes to demonstrate that our intuitions about the importance of preserving natural objects are part of a long and respectable intellectual tradition. Second, he hopes to provide at least a preliminary philosophical justification for these aesthetically based sentiments. For the purposes of this study, however, it is sufficient to note that even if Hargrove's theory is persuasive, it is quite limited in its applications. It has the most potential when addressing concerns about unique and spectacular natural objects—the Grand Canyon, for example. It is much less useful when applied to the common and mundane in the natural world. Although Hargrove makes an unconvincing attempt to demonstrate that there are no negative aesthetic qualities in nature,[16] and thus that all natural objects fall under the aegis of his environmental ethics, he also concedes that there are qualitative aesthetic differences between various natural objects, leading to qualitatively different moral obliga-

tions toward them.[17] Hargrove's solutions are an outgrowth of his own experience in trying to protect an unusual natural object—Onondaga Cave in Missouri[18]—and his theory holds promise for defending the preservation of only the very rare and the very beautiful in the natural world.

For those environmental theorists who wish to develop an understanding of the intrinsic value of nature that has broader relevance, there are two major options in the contemporary literature. They can either, like Sale, base a theory of intrinsic value and an environmental ethic on the modern science of ecology, or they can establish an environmental ethic on deontological moral principles. Holmes Rolston III and J. Baird Callicott have followed the first route, and they confront a difficulty similar to that faced by Sale: how to generate moral principles from supposed scientific facts. Paul Taylor's *Respect for Nature* is the most sophisticated example of the second approach; his obstacle is adequately justifying the foundations of the moral principles he defends. For all of these theorists, the task is first to locate what they take to be intrinsic values in nature, and then to build their environmental ethic on these values. All can be seen as seeking to provide philosophical rigor to the pastoral tradition of Thoreau and Muir, which is committed to the view that nature's value and moral significance are greater than its commercial or instrumental value.

Holmes Rolston claims, in his *Environmental Ethics*, that "no education is complete until one has a concept of nature, and no ethics is complete until one has an appropriate respect for fauna, flora, landscapes, and ecosystems."[19] Rolston thus maintains that even the greatest figure in Western philosophy, Socrates, could learn a good deal from John Muir's studies in the "University of the Wilderness."[20] J. Baird Callicott, too, in his collection of essays, *In Defense of the Land Ethic*, believes that conventional Western philosophy must begin to focus on the "broad human ethical responsibility to the nonhuman natural world"; this "radical proposal may be found latently present in some of the essays of John Muir, but Muir neither fully articulated nor fully grounded it, as Leopold did, in a supporting matrix of ideas."[21] Both of these theorists believe that environmental ethics, as it is emerging from the ideas of Muir and Leopold, constitutes a necessary and radi-

cal challenge to our philosophical inheritance. Rolston writes that environmental ethics "is both radical and revolutionary,"[22] and Callicott argues that environmental philosophers are engaged in "nothing less than a sweeping philosophical overhaul—not just of ethics, but of the whole Western world view." Their goal "is to build, from the ground up, new ethical (and metaphysical) paradigms."[23] The task is to give a reasoned, philosophical account of the biocentric views presented in essentially religious terms by Muir (and more recently by the deep ecologists).

The authors' first concern is to defend the notion of the intrinsic value of nature. Callicott and Rolston are both hostile to the extension of liberal protections (such as rights) to the natural world, and they are equally suspicious of sentimental appeals for the humane treatment of nonhuman life.[24] Rather than attributing human value to nature, these theorists argue that the issue is, in Callicott's words, to "discover . . . the metaphysical foundations for the intrinsic value of other species."[25] Rolston likewise asserts that he will derive his notions of duty toward nature from the discovery of the values in nature.[26] It is of supreme importance for both writers to locate and corroborate the grounds on which the natural world is to be seen as valuable in its own right, apart from its usefulness to people and without anthropomorphizing it.

Although the details of their theories differ, Callicott and Rolston agree that the basis for a theory of the intrinsic value of nature must be the contemporary science of ecology. "The philosophical context of the land ethic and its conceptual foundation," states Callicott, "is clearly the body of empirical experience and theory which is summed up in the term *ecology*."[27] Likewise, Rolston explains the method of his study by arguing that "we move from believed facts to believed evaluations and thence to believed duties."[28] Rolston and Callicott concur that any satisfactory environmental ethic must be constructed on a generally recognized body of scientific knowledge, because, as Rolston puts it, they are searching for an ethic that "appropriately 'follows nature.'"[29] If these theories are to succeed, they will have to demonstrate that the values of nature can actually be deduced from the facts of nature as we understand them.

Although Callicott seeks to establish a metaphysical foundation for the intrinsic value of other living things, his theory is actually more

sociobiological. His stated goal is to give a theoretical account of Leopold's "land ethic," and to this end he draws on and combines three distinct elements. First, he defends what he understands to be David Hume's moral theory, which is rooted less in reason than in the moral sentiments. If reason is the slave of the passions, then it is essential to ground morality in these passions (or sentiments) in order for morality to have any relevance for human life. Second, Callicott links this Humean view of the nature of ethics to a Darwinian conception of social evolution. For Callicott, ethical life is prerational and evolutionary: "Reason appears to be a delicate, variable, and recently emerged faculty. It cannot, under any circumstances, be supposed to have evolved in the absence of complex linguistic capabilities which depend, in turn, for their evolution upon a highly developed social matrix. But we cannot have become social beings unless we assumed limitations on freedom of action in the struggle for existence. Hence we must have become ethical before we became rational."[30] In Callicott's view, the evolution of ethical sentiments is tied to the recognition of shared interests within communities. To the degree that individuals recognize common ground with others, they will develop moral sentiments toward them. The sociological community thus becomes the ethical community.

Callicott completes his land ethic by introducing the third essential ingredient: ecological knowledge. When he writes that "the key to the emergence of a land ethic is, simply, universal ecological literacy,"[31] he is claiming that the primary message of contemporary ecology is the mutual interdependence of all the elements of the biosphere. Given this interdependence, "The simplest reason, to paraphrase Darwin, should . . . tell each individual that he or she ought to extend his or her social instincts and sympathies to all the members of the biotic community."[32] If, as Callicott believes, the most important scientific lesson of ecology is the community of shared interests among all living things and their life-support systems in the water, air, and soils, then we can assume, on Darwinian logic, that it will be "natural" for human moral sympathies to embrace not only other creatures but the biosphere as a whole. The solution to the problem of environmental ethics thus lies less with the refinement of moral argument than with the spread of ecological information.

Rolston's theory is not as explicit as Callicott's about the connection

between the development of environmental ethics and ecological science, but it has roughly the same character. Rolston, like Callicott, attempts to derive ethical principles from ecological knowledge. For example, he believes that based on our knowledge of the character of nature, it is wrong to believe that humans must refrain from inflicting any innocent suffering on nonhuman life. Such a humane ethic is actually "contrary to nature." He asserts (without really arguing the point) that what we do learn from nature is that "culture ought not to amplify the cruelty in nature, certainly not without showing that greater goods come of doing so."[33] For Rolston, environmental ethics requires that we live in harmony with ecological principles. "Ecology, not charity or justice, provides the benchmark or, at least, the floor" for such an ethic.[34]

The necessary assumption on which Rolston constructs this view is that what is found in nature is not only empirically real but also morally good. Rolston argues that the intrinsic value of living things is demonstrated by the fact that there is an objective good for all organisms. Although they may lack a subjective recognition of this good, this does not mean that the good is without value. For Rolston, the very fact that any living thing has an intrinsic good suggests that it also has an objective intrinsic value. And again, although he offers no real argument to support this claim, his rhetorical question appeals to his own (and, he hopes, our own) intuition on the matter: "Such organisms have no envisaged goals, but why should we restrict value to mentally guided behavior when much behavior is guided by genes and instincts—and we do value this kind of behavior even in ourselves. Is there no reason to count this ethically, unless and until it is accompanied by sentience? Is not objective life too among the archetypes on which the world is built?"[35]

For Rolston, it makes perfectly good sense to say that trees are "valuable in themselves, able to value themselves; they stand on their own."[36] Although he does not state precisely what it would mean for a tree to value itself, he presumably has in mind the tree's objective pursuit of life and health. This indicates, for Rolston, both the goodness of spontaneous life and its inherent value.

Rolston clearly believes that the more we learn about nature, the more we will recognize it as a good in itself. Although Rolston's environmental ethic is more specifically aimed at living things than Calli-

cott's holistic land ethic, both locate intrinsic value in the general process, rather than the individual expressions, of life. As Rolston observes, "What humans ought to respect are dynamic life forms preserved in historical lines, vital informational processes that persist genetically over millions of years, overleaping short-lived individuals. It is not *form* (species) as mere morphology, but the *formative* (speciating) process that humans ought to preserve, although the process cannot be preserved without its products."[37] It is through experiencing and learning about the natural and wild world that we come to morally respect the environment.

This process of moral education, however, is very impressionistically and imprecisely explained. Rolston writes that ecologists discover that "ecosystems *objectively* are *satisfactory communities* in the sense that, though not all organismic needs are gratified, enough are for species long to survive." In turn, the "critical ethicist finds (in a *subjective* judgement matching the *objective* process) that such ecosystems are . . . *satisfactory communities* to which to attach duty."[38] In the end, Rolston admits that the conceptual leap from description to proscription—from "is" to "ought"—does not lend itself to a fully rational defense. In fact, "an *ought* is not so much *derived* from an *is* as discovered simultaneously with it."[39] Although he is confident that such an ethical discovery will take place, he acknowledges that it relies more on intuition than on rational or logical demonstration. Rolston realizes that "resolute subjectivists" (those who find intrinsic value only in subjective life) will not be convinced by his arguments. He believes nonetheless that "the conversion to our view seems truer to world experience and more logically compelling."[40]

In light of this review of each theorist, it is clear that neither Callicott nor Rolston provides the philosophical defense of a biocentric or ecocentric ethic that they set out to develop. Although they each offer some explanation of why we should respect the natural world and recognize moral obligations toward it, their theories do not have the philosophical grounding that would distinguish them from Muir's religious intuition or the deep ecologist's equally nonrational appeal. Rolston concedes as much in the passages quoted above, and one reviewer of his work correctly notes that philosophers will be "frustrated . . . by Rolston's failure to complete an argument."[41]

In addition, not only does Rolston fail to argue the principles he ad-

vocates, but he does not consistently apply them. Consider again Rolston's claim that we are under no ethical obligation to eliminate all innocent suffering for nonhumans, though we are obliged to not multiply the amount of suffering that naturally occurs. He therefore justifies eating meat on what he regards as ecological grounds. Yet he then argues that Jews who insist on slaughtering animals according to kosher laws are inflicting greater pain on animals than is required by modern methods of slaughter. In this case, Rolston holds that because this is simply "pain inflicted for culture-based reasons," it is morally unacceptable.[42] Jews should instead "reach reformed religious convictions" that would allow them to kill animals more humanely.[43] This conclusion, however, is specious. First, there is the obvious inconsistency that non-Jewish eating habits are just as "culture-based" as Jewish religious practices. More important, Rolston does not claim that conventional Jewish methods of slaughter increase the amount of pain or suffering that would occur spontaneously in nature; thus his own lack of sympathy with these procedures appears to violate the "ecologically" derived principles he has previously defended. In short, since Rolston appeals more to intuition than to reasoned argument throughout his work, the environmental ethic he defends displays a noticeably arbitrary character.

While Rolston neglects a strong philosophical defense for his attempt to wed scientific knowledge to an environmental ethic, Callicott's work is even more striking for its apparently self-conscious rejection of philosophical argument altogether. Callicott claims that value judgments are neither true nor false, philosophically understood. Rather, "there does exist a functional equivalent in what I have . . . called a 'consensus of feeling.'"[44] Morality is thus reduced for Callicott to psychology. "The alleged evil of an action is, as it were, a projection of the quality of that subjective feeling which originates within us when we witness or imagine murder. And so similarly with other moral judgments, for example, that charity is good, that injustice is bad, and so on: feeling, not reason (in the sense of dispassionate observation), is their ultimate foundation."[45] The degree to which this view commits Callicott to the rejection of rational argument is nicely illustrated by one of his own examples. What, he asks, should parents do to persuade their teenage daughter not to smoke cigarettes? Argue as follows: First, smoking is a threat to one's health. Sec-

ond, your health is something toward which you have a positive moral sentiment. Third, we can conclude that you should not smoke cigarettes. Callicott apparently believes that this appeal to medical knowledge is sufficient to close any debate. If the teenager rejects the factual premise, we have recourse to the testimony of experts. If she rejects the second, Callicott suggests that "psychological counseling could be prescribed."[46] Callicott's recommendation of counseling, of course, entirely skirts the very serious philosophical issues at stake—why, for example, should personal health be preferred over other values? In this particular case he may be right, but he certainly has not demonstrated why this is so. Instead of reasoned discussion, Callicott proposes that parents enforce a dogmatically asserted model of "natural sentiments" or mental health.

Callicott seems to believe that even the ecological education he describes as the foundation of an environmental ethic is best thought of as an education in sentiment rather than in scientific knowledge. He notes with approval, for example, the tactics of abortion protesters who show graphic pictures of aborted fetuses, and he implies that the environmental movement must use similar strategies in promoting its cause—the point being that this appeal to sentiment is more promising and appropriate than a reasonably defended view on the matter.[47] Contrary to his initial claim that the way to develop an environmental ethic is by promoting universal ecological literacy, he later admits that not all environmental scientists are in fact environmentalists.[48] Reason and knowledge alone do not apparently go as far in fostering environmental ethics as Callicott first maintains. Rather, the promotion of environmental ethics is reduced, in his theory, to the cultivation of particular emotions and passions. Although he describes his theory as both deontological and prudential, it contains no obvious deontological component.[49] Callicott thus does not furnish convincing philosophical arguments for his land ethic; in fact, he actually appears to be extremely skeptical about philosophical activity. We are left with only his psychological and sociobiological descriptions of the evolution of ethical life and his speculations about how this may increase our awareness of and concern for the natural environment. The attempt to rationally defend this ethical life is rejected out of hand.

Another serious problem with these theories is their tendency to undermine the central commitment to discovering intrinsic value in

nature. Rolston notices this trend in Callicott's views but fails to see that it reappears in his own work. Rolston claims that his theory respects the intrinsic value of nature more than Callicott's because it is more biocentric—that is, it acknowledges that there are independent values in nature, whether or not they are recognized by humans. He thus contends that he has developed a stronger and more attractive ethic than Callicott. While value in nature is just a matter of human psychology for Callicott, in Rolston's view it is something actually located in nature, distinct from our subjective cognizance of it.[50]

The difficulty for Callicott is that his theory shifts its ground. While it initially undertakes to elucidate the intrinsic value of nature, it instead becomes an argument about the interests shared by all members of the community of living things and their ecological support systems. Callicott's entire theory is based on the claim that the science of ecology teaches the unity of all the components of the biosphere. "As one moves, in imagination, outwardly from the core of one's organism, it is impossible to find a clear demarcation between oneself and one's environment."[51] This is why Callicott believes that ecological education will promote the development of environmentalist sentiments or, in Leopold's phrase, the land ethic. As evidence, Callicott recalls standing on the banks of the Mississippi and experiencing a personal hurt at seeing the pollution of the river. His ecological study had taught him the degree to which his own fate was tied to the fate of the river and the environment generally. He concludes by observing that "ecology thus gives new meaning as well as a new substance to the phrase 'enlightened self-interest.'"[52] The lessons of ecology reveal the community of all living things and give rise to environmental ethics. This community of self-interest is designed such that a harm to any member is a harm to all. Consequently, Callicott's theory is less about the intrinsic value of nature than the true nature of human interests.

Rolston makes similar claims—and he is thus also guilty of realigning his theory from "intrinsic value" to "community of life" arguments. He writes that "duties arise in encounter with the system that projects and protects, regenerates and reforms all these member components in biotic community."[53] Or again, "We start out valuing nature like land appraisers figuring out what it is worth to us, only to discover that we are part and parcel of this nature we appraise."[54] The point is the same as the one Callicott has defended: Our ethical rela-

tionship with the environment is grounded in the fact that we have deeply shared interests with nature. Nature creates us, and our fates are thus intricately intertwined with it. Rolston, no less than Callicott, falls back on claims about "enlightened self-interest" in promoting environmental ethics. In Callicott's words, "To those who are ecologically well-informed, nonhuman 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."[55]

There are two important responses to this assertion. First, it is not always demonstrable that human interests and the interests of natural objects are even related, let alone compatible. Rolston at least partially recognizes this when he observes that an argument for species preservation cannot be based simply on shared interests: "Let's be frank. A substantial number of endangered species have no resource value."[56] The point could be pushed further: The fates of many endangered species and other natural objects have little or no relationship with human well-being at all (to say nothing of negative relationships), which is the reason why intrinsic value arguments are so important in the first place. Rolston also notes that humans probably have more disvalue than instrumental value for nature.[57] If this is true, then there is cause to question the usefulness of appealing to shared interests between people and the rest of living nature as a foundation for environmental ethics.

The second and more important point is that the recourse to a community of interests suggests a lack of confidence in intrinsic value arguments and so undermines the credibility of the overall project. The stated purpose of these theories is to provide an ethical defense, based on the scientific understanding of nature, of the independent moral status of the natural world. This endeavor is inspired by the belief that conventional utilitarian and liberal conceptions of nature are in practice unsatisfactory protectors of the environment. What Callicott and Rolston ultimately achieve, however, is more an expansion or revision of the progressive conservation tradition than its replacement. Although they are not as crudely utilitarian as Pinchot, they are nonetheless suggesting that human welfare is intimately tied to the health of the biosphere as a whole—a point with which Pinchot would doubtless agree. But this message threatens to obscure the distinc-

tions between human interests and the moral status of nature that prompted Callicott and Rolston's search for the inherent and independent value of nature in the first instance. Both authors, in the final analysis, are theorizing about our status and obligations within the biotic community, not about the intrinsic value of nature, and thus, they avoid rather than resolve what they both take to be the fundamental problem of environmental ethics.

This theoretical retreat from their initial goal can be seen in the attitude toward nature that both writers advocate. Both contend that by basing their views on scientific knowledge, they will avoid the sentimentalism or condescension toward nature typical of other environmentalist writings. Callicott's early works are highly critical of the animal rights literature, and Rolston defends hunting on ecological grounds; both are unsympathetic to vegetarianism. Each aims to foster an almost hard-boiled understanding of the "facts of nature." Nonetheless, Rolston concludes that the sensibility we need to cultivate is "a sense of aristocratic responsibility for the natural world,"[58] and Callicott's own theory is of an "ethics grounded in altruistic feelings."[59] These sensibilities seem a far cry from the biocentric respect for the independent integrity of nature, or from the rejection of a sentimental attitude toward the environment. Their views have not moved as far as they suppose from the caretaker or "stewardship" image found in more conventional conservationism.

There are other significant issues raised by the way Callicott and Rolston attempt to construct their theories. For example, assuming that moral principles *can* be derived from scientific facts, theories generated in this manner are subject to continual and potentially radical alteration in the face of scientific developments. Callicott and Rolston write about the science of ecology as if it were at least in rough outline a theoretically complete science. In reality there is no reason to think that it will be less subject to transformations, and perhaps rather frequent transformations, than other fields of scientific inquiry. Even if they have correctly interpreted the findings and theory of contemporary ecology, they have not provided independent grounds for their ethical theories to keep them from becoming irrelevant in the face of inevitable scientific developments.

In sum, these two major attempts to base a radical pastoral environmental ethic on the findings of contemporary ecology have been no

more successful than Sale's appeal to the Gaia thesis as a guide for a new ecological perspective. Although Rolston and Callicott have been leaders in the promotion of this approach, their own work fails to persuasively explain how the intrinsic value of nature can be derived from scientific knowledge. Their failure at this task leaves them with little more than a secondary claim about how ecology demonstrates a general community of interest between humans and the rest of nature. This claim is not only unconvincing in certain crucial respects, but it is also significantly less ambitious and unique than the moral theory they initially promised.

The most sophisticated philosophical defense of a radical biocentric environmental ethic has been presented by Paul Taylor in his *Respect for Nature*. Taylor's theory differs from Rolston's and Callicott's in a number of key respects—for example, he emphasizes the moral importance of individual organisms, as opposed to species or natural processes—but none is more significant than his overt rejection of the use of scientific facts for building an ethical argument.

> We can no longer simply appeal to the notion that the natural world has itself provided us with a guide to follow: preserve "the balance of nature" and so live in accordance with the design built into the very nature of things. . . . [W]e humans as moral agents must search for our own principles to guide us when we try to determine how to live in right relation to the natural world. This requires us to engage in ethical inquiry and not simply "read off" moral norms from a certain way of conceiving of the order of living things.[60]

Taylor thus denies that it is possible to move from the facts of contemporary ecology to a set of compelling moral principles. Ethics is "autonomous" from biological description, and there is no logical connection between such descriptions and moral principles.[61] Although, as we have seen, Rolston and Callicott end up admitting that a formal connection between ecology and ethics cannot be demonstrated, Taylor intends to maintain a greater distance between the two and to avoid relying too heavily on science as the foundation of an environmental ethic.

It is apparent, however, that Taylor does not believe ecology is irrelevant to the overall task of devising such an ethic. His theory is divided into four general components, and the first two draw quite heavily on biological theory and information. Described as the "attitude of respect for nature" and the "biocentric outlook on nature," these parts constitute the general ethical basis on which Taylor will construct the third component: a set of moral principles to guide the human relationship with nature. The fourth major element of the theory is another set of principles to mediate conflicts between human ethics and environmental ethics.

Taylor's "attitude of respect for nature" is premised on the claim that moral respect is owed to any object that has a good of its own and an inherent worth. (Taylor prefers to speak of the inherent worth of an object, rather than its intrinsic value, since he believes inherent worth is a less anthropocentric concept.[62]) An object has a good of its own if it is possible to say, "truly or falsely, that something is good for an entity or bad for it without reference to any *other* entity."[63] This holds true for all individual plants and animals in a manner that distingushes them from inanimate objects. "Since piles of sand, stones, puddles of water, and the like do not pursue ends, they have no interests. Not having any interests, they cannot be benefited by having their interests furthered, nor harmed by having their interests frustrated. Nothing gives them either satisfaction or dissatisfaction."[64]

To determine whether an object has a good of its own, we must be able to take the "standpoint" of this object in our imagination, using the biological information available to us. "Unless we learn how the organism develops, grows, and sustains its life according to the laws of its species-specific nature, we cannot fully understand what promotes the realization of its good or what is detrimental to its good."[65] Since we have access to scientific descriptions about the vast majority of living things, it is reasonable to conclude that we can make "factually informed" and "objective" judgments concerning the well-being of these organisms from their own perspective.[66] It is crucial for Taylor that each living thing has its own individual good. Populations or species have no goods of their own, other than the statistical aggregation of individual goods.[67]

A host of questions are raised by these preliminary assertions. For example, what does it mean for nonsentient creatures and plants to be

given "satisfaction" or "dissatisfaction"—concepts that seem to require sentience? Likewise, in taking the imaginative standpoint of such organisms, how can we be confident that we are actually experiencing their good rather than transferring to them our own conceptions of good? Taylor imagines, for example, a butterfly who manages to live what a biologist would consider a normal, healthy span. "From the perspective of the butterfly's world, it has had a good life."[68] Although Taylor wishes to avoid anthropomorphizing nature in his theory, the very language demanded by this exercise appears to make it inevitable.[69]

More important, it is essential to note that Taylor has based his thesis concerning the goods of living entities on certain scientific criteria. We are unable, he believes, to fully grasp the goods of other living things until we have at least a minimal level of species-specific biological information about them. It is not enough to say, "It is alive, and life is good." Rather, we must understand the particular goods relevant to that specific form of life before we can truly appreciate the goods of that life. Thus, scientific knowledge plays a central role in our awareness and appreciation of goods embodied in any living object.

When Taylor moves to a discussion of inherent worth, he becomes even more dependent on empirical ecological and biological evidence. According to Taylor, "the fundamental value presupposition of the attitude of respect" for nature is the recognition that all entities with goods of their own are also entities possessing inherent worth.[70] Taylor believes that recognizing this will commit us to an understanding of the equal moral status of all individual organisms. "Whatever its species may be, none is thought to be superior to another and all are held to be deserving of equal consideration."[71] This postulate, however, can only be justified by reference to the second major component of Taylor's theory—the underlying biocentric outlook. In order to vindicate claims about the inherent worth and equality of all organisms, Taylor must turn to a defense of the biocentric worldview. "We can establish the truth of the claim by showing that *only this way of regarding them is coherent with how we must understand them when we accept the belief-system of the biocentric outlook on nature.*"[72]

Taylor admits that the biocentric outlook cannot be proved in any formal sense,[73] but he argues that each of its four essential components is reasonable and that together they constitute a coherent worldview. The four beliefs are: first, "that humans are members of

the Earth's Community of Life in the same sense and on the same terms in which other living things are members of that Community"; second, that all living things are interdependent; third, that all living organisms are "teleological centers of life in the sense that each is a unique individual pursuing its own good in its own way"; and fourth, that humans are not morally superior to other living things.[74] Taylor's defenses of the first three beliefs are based entirely on observations about the biological nature of life and the ecological interconnectedness of humans with the rest of the living world.[75] The final tenet is defended by criticizing conventional claims about human superiority as "an irrational bias in our own favor,"[76] an "unfounded dogma of our culture."[77] But even this belief ultimately rests on a judgment about empirical reality: "The similarity between ourselves and other animals cannot be denied. Although there are differences, they appear to be a matter of degree, not of kind."[78]

Since for Taylor the first element of his theory (the attitude of respect for nature generally, and the recognition of the inherent worth of each living thing in particular) cannot be fully maintained without reference to the second (the biocentric outlook), it is clear that the foundation on which Taylor intends to build his moral principles is not nearly as independent from biological description as he presumes. In fact, Taylor's method does not seem to differ fundamentally from Callicott and Rolston's attempt to derive moral principles from ecological facts. Taylor explicitly acknowledges that these two preliminary points cannot be formally proved, but so also do Callicott and Rolston ultimately concede that there is no logical link between ecological facts and environmental ethics. Although Taylor's theory is significantly more rigorous and systematic than the other authors', his initial premises are not as radically different from theirs as he would have us believe. As such, he does not escape the obstacles confronting all such attempts to build ethical principles on empirical facts.

There is a noticeable tension in Taylor's theory that is revealed when he begins to describe the biocentric worldview. This underlying biocentric outlook demands, for Taylor, that "we see human life as *an integral part of the natural order of the Earth's biosphere*."[79] Humans are to be thought of as equal, valued, and important members of the community of life. It is our status as an integral element in nature that suggests to Taylor the reasonableness of asserting our membership in the

earth's community, with all that this implies about mutual interdependence, equality, and shared interest. This perspective clearly presupposes minimal conflicts of interest between people and other organisms, as well as a positive role for humans within this community.

However, Taylor quickly retreats from his initial position. Although he begins by observing that "our dependence on the general integrity of the whole realm of life is absolute,"[80] he then explains that our relationship with the rest of the living community is not in the least bit mutual: "Our demise would be no loss to other species, nor would it adversely affect the natural environment. On the contrary, other living things would be much benefitted. . . . It seems quite clear that in the contemporary world the extinction of the species *Homo sapiens* would be beneficial to the Earth's Community of Life as a whole."[81] In fact, if our species were to disappear, "the ending of the human epoch on Earth would most likely be greeted with a hearty 'Good riddance!'"[82] Taylor's final view is not that we are equal and valuable members of "Earth's Community of Life," but rather that we are dangerous, probably unwelcome, intruders upon that community. If this is true, the biocentric outlook teaches less our shared interests with and equal status in the ecological world than our alienation from it—perhaps even our complete moral illegitimacy from a biocentric viewpoint.

The biocentric outlook, in short, leads in a very different direction than we would expect, given Taylor's expressed theoretical concerns. Taylor initially promises to avoid two stumbling blocks found in other theories of environmental ethics: the appeal to an "organic" community, and the appeal to moral intuition as the foundation of ethical principles. Taylor is careful to distinguish his conception of the community of life from any "holistic" claims about the earth as a superorganism along the lines of the Gaia thesis.[83] Likewise, he states that invoking intuition is a danger for ethical thought. "Such an appeal has no relevance to the truth or falsity of what is felt and believed so deeply. Indeed, the search for truth in these matters is *seriously hindered* by the tendency to rely on our intuitive judgments."[84] On both of these points, however, the biocentric outlook appears to lead in the opposite direction.

First, although Taylor does not depict the earth as a "superorganism," his biocentric perspective has significant similarities to moral

theories built on such a claim—most notably, it too obscures the moral issues at stake in the human relationship with the environment by appealing to generally shared interests. As we will see, the ethical principles Taylor defends in the last two components of his theory presume that environmental ethics must concentrate on the clarification and mediation of conflicts between humans and the natural world. The biocentric outlook, in contrast, threatens to make such conflicts increasingly difficult to identify. After all, if we are an integral and equal member of the community of life, on what grounds are we to criticize our "natural" species behavior within that community? Just as with Rolston's and Callicott's theories, Taylor's biocentric worldview may actually undermine the original purpose of the theory: defining ethical boundaries for human behavior, through the recognition of the inherent moral worth of other organisms. The danger of the biocentric perspective is that it blurs the distinction between ourselves and other living things so crucial for locating such boundaries.

Second, it should be clear by now that Taylor's use of the biocentric outlook as the foundation of his moral theory has much in common with an appeal to intuition. Although he desires to build a set of moral principles on firmer ground than this, he admits that the biocentric outlook cannot be formally proved and that the moral significance of certain biological and ecological realities must be accepted intuitively. It is difficult to see how Taylor can consider his own biocentric outlook to be radically different from the intuitive appeals found elsewhere. At the very least, Taylor's biocentric outlook is in obvious tension with his professed rejection of ethical theories built on intuition.

Once he has explained the attitude of respect for nature and the biocentric outlook on which this rests, Taylor is in a position to derive his two sets of moral principles. The first of these directly addresses environmental ethics, and the second is designed to mediate potential conflicts between environmental ethics and human ethics. Both sets of principles are constructed to reflect a radical biocentric egalitarianism and "species impartiality." Upon examination, however, these principles call into question Taylor's commitment to the biocentrism he advocates. For example, the "rule of restitutive justice," the fourth and final of Taylor's environmental ethical principles, holds that when harm is done to certain individual organisms or groups of organisms,

we should do everything in our power to "make amends to the moral subject by some form of compensation or reparation."[85] This rule raises no serious problems if an organism that has been harmed can be meaningfully compensated. If, however, the organism has been killed, Taylor suggests that "the agent owes some form of compensation to the species-population and/or the like community of which the organism was a member. This would be a natural extension of respect from the individual to its genetic relatives and ecological associates."[86] Yet Taylor earlier stressed the individualistic character of his theory: Respect is owed to each living organism in light of its individual inherent worth, which does not lie in the organism's relationship with a species or any other ecological community. Thus, restitution to other organisms, on Taylor's own terms, would appear to be morally irrelevant from the perspective of the wronged individual. As Peter Wenz writes, "Taylor's biocentrism cannot, with consistency, endorse the kinds of restitutive measures that are needed."[87]

This problem becomes even more damaging when we turn to Taylor's discussion of the principles governing variances between human and environmental ethics. Taylor correctly observes that "conflicts between humans and nonhumans are real,"[88] and he proposes five "priority principles" for resolving them—self-defense, proportionality, minimum wrong, distributive justice, and restitutive justice. When basic human interests clash with basic interests of other organisms, Taylor can consistently hold that the former take priority on the grounds, for example, of self-defense—a biocentric principle in the sense that all organisms are equally allowed to prefer their own basic needs and interests over the needs and interests of other living things. However, Taylor claims that certain nonbasic human interests, such as a highly developed cultural life, are so extraordinarily important in "their contribution to human civilization seen from a broad historical perspective" that they too should supersede the basic interests of other living things.[89] Building a museum, for instance, requires the destruction of many organisms and their habitat. This would be acceptable for Taylor, as long as we minimize the wrong and perhaps provide restitution in the form of habitat protection elsewhere.

At this point, Taylor has violated the conditions of his own biocentric egalitarianism. As Peter Wenz observes,

> Strict adherence to Taylor's Biocentric Individualism is inconsistent with actions designed to promote any nonbasic human interests, including those of *haute culture*. This goes against the grain, to say the least. Taylor does not seem to like it any more than I do, so he gives us the Principle of Minimal Wrong. It permits what his Biocentric Individualism, taken seriously, forbids. Thus, biocentric egalitarianism is so confining that even Taylor, its foremost proponent, refuses to apply it consistently.[90]

Apparently Taylor finds his own principles too radical to be acceptable. This seriously weakens the credibility of his conclusion that "the moral shift from anthropocentricity to biocentricity is not psychologically impossible for human moral agents to accomplish."[91] Taylor's own inconsistency suggests both the moral and psychological difficulty of fully accepting his biocentric theory.

The rejection of the progressive conservation tradition by contemporary radical environmental philosophers has created the need to find new moral ground for respecting, protecting, and valuing the nonhuman natural environment. The results of the search for a convincing biocentric or ecocentric theory, however, have been disappointing. At some point, all of these theories end up appealing to human interests by connecting our interests to the ecological community of which we are a part, thus undermining the strict biocentrism of the project. At some point, the biocentrism that is to be defended either loses its radical force or is inconsistently applied by the theorist, as a result of its obviously and unacceptably misanthropic implications and conclusions.

Although these theorists share with Thoreau and the other major figures in the pastoral tradition the belief that nature has generally unrecognized and yet profound moral importance, contemporary pastoralism has been unable to maintain the severely critical perspective it seeks to defend. As we have seen, both Callicott and Rolston believe that their theories offer an appropriate account of the ethical relationship between humans and the natural environment and that radical environmental ethics throws down a challenge to conventional ethics generally. Writing very much in the tradition of Thoreau, they argue

that a proper understanding of nature is the key to a radical critique not only of philosophy, but of contemporary intellectual and social life as a whole—with Rolston contending that environmental ethics is truly revolutionary, and Callicott stating that his "goal is to build, from the ground up, new ethical (and metaphysical) paradigms."

In Callicott's early work, this radical promise was fulfilled, but in a way that was ultimately unacceptable not only to others but to himself as well. In his "Animal Liberation: A Triangular Affair," initially published in 1980, he suggests that the "extent of misanthropy in modern environmentalism . . . may be taken as a measure of the degree to which it is biocentric."[92] His first defense of biocentrism, in short, was a defense of an ethic that privileged nature over human interests—and in this sense it could rightly be considered a complete rejection of conventional ethics. Predictably, Callicott was attacked for this overt misanthropy, and he later revised his views.[93] In the process, however, he lost the holistic quality of his theory. Discussing the relationship between the land ethic and interhuman ethics, Callicott writes:

> The land ethic, happily, implies neither inhumane nor inhuman consequences. . . . From the biosocial evolutionary analysis of ethics upon which Leopold builds the land ethic, it (the land ethic) neither replaces nor overrides previous accretions. Prior moral sensibilities and obligations attendant upon and correlative to prior strata of social involvement remain operative and preemptive. . . . The biosocial development of morality does not grow in extent like an expanding balloon, leaving no trace of its previous boundaries, so much as like the circumference of a tree. Each emergent, and larger, social unit is layered over the more primitive, and intimate, ones.[94]

Callicott clearly wants to unite all these different layers of ethics within the context of some overarching sociobiological claims about the general nature of ethics. But the relationship between interhuman and environmental ethics nonetheless remains extremely undeveloped—beyond the metaphor of rings in a tree. He does claim that the closer the social connection between individuals, the stronger the ethical obligations between them. Thus, family obligations come before national ones, humanitarian obligations before environmental du-

ties.[95] But this does very little to illuminate ethical obligations as they apply to conflicts *between* different realms. One is tempted to conclude that the more intimate obligations always take priority over less intimate ones, but this would clearly subordinate Callicott's land ethic within the ethical world. At any rate, Callicott's land ethic never seriously alters our prior moral obligations, much less our conventional ethical understandings.

Although Callicott has consistently criticized "extensionists" in environmental ethics (those who would simply extend conventional ethical categories to include nature), his own theory appears remarkably "extensionist" itself. At the very least, it fails to offer the radical ethical reorientation that he promises and that the entire tradition of pastoral environmentalism, beginning with Thoreau, has promoted. In the final analysis, Callicott does not have much to say about the relationship of nature to the rest of ethical life. Rolston, too, concludes that nature "gives no ethical guidance in our interhuman affairs."[96] What began for both as a significant challenge to our philosophical inheritance—in Rolston's terms, the promotion of Muir and the demotion of Socrates as the central philosophical figure—ends instead with a retreat from Thoreau's use of nature as the springboard for a radical criticism of contemporary society and values.[97]

Taylor's claims about the significance of a biocentric environmental ethic are not as sweeping as those of Callicott and Rolston. He is very careful to state at the outset that the moral principles involved in environmental ethics are "fundamentally separate and distinct" from human ethics.[98] Although he proposes a less grand revision of conventional ethics than these other authors, there is a fundamental assumption in his work that "it makes a practical difference in the way we treat the natural environment whether we accept an anthropocentric or a biocentric system of ethics."[99] On the most basic level, there is something compelling about this assertion: It would seem intuitively obvious that biocentrism requires a much greater respect for the natural world than does an anthropocentric view. Indeed, when Taylor is at his most consistent, his theory contains an obvious, and most people would consider outrageous, radicalism. Gene Spitler, for example, has charged Taylor with moral obtuseness in not being able to make some of the most elementary moral distinctions. "Taken literally, Taylor would find that shooting his neighbor was no more morally reprehensible than swatting a fly or stepping on a wild flower."[100]

In response, Taylor bravely admits that this is in fact his view: "The killing of a wildflower, then, when taken in and of itself, is just as much a wrong, other-things-being-equal, as the killing of a human. . . . *As* acts of killing, both are equally wrong."[101] If this is actually the position being defended, then biocentrism clearly leads to moral principles contrary to and more radical than those reached by other ethical perspectives.

But, as we have seen, Taylor is unwilling to hold consistently to his own biocentrism, in particular when he discusses the mediation of conflicts between nonessential but arguably important human needs and the essential needs of other organisms. In addition, at the end of his study we find these concluding comments: "Our aim is to make it possible for wild animals and plants to carry on their natural existence side by side with human cultures."[102] And, "The most apt phrase for describing this 'best possible world' in its simplest terms is: *a world order on our planet where human civilization is brought into harmony with nature.*"[103] Although such sentiments display ecological sensitivity and a moral interest and concern for other living things, these moral values could be (and in fact are) held by biocentrists and anthropocentrists alike. In no way has Taylor demonstrated that his own biocentrism is required for the defense and justification of such values.

While Callicott and Rolston come up short in their attempt to provide a contemporary philosophical account of the pastoral environmentalist position, Taylor has completely abandoned a core component of the project. In order to present a sufficiently rigorous account of environmental ethics, he has self-consciously limited the focus of his efforts to exclude any account of how nature can function as an educator in human affairs. On this issue, he rejects in principle (although, as we have seen, not in practice) the appeal to nature as the foundation of moral thinking. Likewise, he denies that our relationship with nature can provide a perspective for a radical criticism of social and political relationships. In his work, the concern for defining and defending the inherent worth of nature has produced a biocentrism divorced from fundamental concerns about human ethics and justice—a view that is radically apolitical. Although Callicott is unable to demonstrate how environmental ethics can transform the whole of human ethics and social life, he remains committed to the attempt. Taylor, however, has shelved this project from the start; for him, the

environment is a separate ethical sphere from social life, requiring an independent ethical system.

The pastoral tradition, as it has evolved from Thoreau to Taylor, has thus shifted in focus. Nature for contemporary biocentric theorists has lost its politically inspirational character, so clear in Thoreau, and instead has become an object to protect and perhaps to love. But it is certainly no longer capable of providing the type of moral guidance Thoreau and Muir believed they could acquire from it. It is not surprising that philosophers have been unable to capture the religious quality in nature experienced by Muir, since it is essentially mystical and beyond secular philosophical demonstration. It is perhaps also not surprising that these modern philosophers have overlooked the political component of Thoreau's pastoralism. Thoreau retreated to nature as a result of his dissatisfaction with the social and political world; in nature he would find an appropriate vantage point from which to criticize and potentially reform the human order. Contemporary biocentric philosophy, on the other hand, turns to the defense of nature out of an environmentalist alarm about its destruction at the hands of contemporary civilization. Biocentrism's foremost concern is the protection and preservation of nature, not the reform of society.

The danger of this perspective, however, is that it seriously handicaps these theorists when they try to address issues concerning human society. Although "community" is discussed a great deal in these works, the term is very loosely employed and remains largely unexamined as a normative concept. It may be appealing, and even true in some sense, to speak, as Taylor does, of "Earth's Community of Life," or, as Callicott does, of the earth as "one humming community,"[104] but it is not useful as a full definition of our relationship with other living things. It simply cannot describe, for example, the extension of the moral and affective mutuality that is usually thought to be included in the notion of human community. Not only have these theorists failed to provide a convincing account of their own biocentrism, but they have not adequately attended to the importance of this biocentrism for the primary communities to which we belong—our social and political communities. At best they can suggest limitations on the behavior of these communities in their relationship with nature. The biocentric perspective they have adopted prevents them from being able to describe and defend a radical alternative social and political life in-

formed and guided by their own environmental ethics, as Thoreau would demand. Instead they vacillate between overt hostility toward the human community in general and a vague appeal to the extension of the human community to the broader natural world.

6
Restoring Political Vision

> The American impulse—in fact, it can be called our imperative—to reform the New World landscape.
>
> —*Cecelia Tichi*

> Ecologists strain at the bounds of ordinary political discourse, and in doing so extend it.
>
> —*Anna Bramwell*

> The challenge for us is to discover a new humility, a recognition that the overwhelming complexity of nature will never be fully comprehended or controlled.
>
> —*Anita Gordon and David Suzuki*

The progressive and pastoral traditions continue to shape philosophical and political environmental theory. Although these debates have evolved significantly since Thoreau's and Pinchot's lifetimes, they clearly share significant characteristics with the earlier theories. Pinchot's progressive conservationism is distinctive for its commitment to liberal conceptions of equality and justice, its utilitarianism, and its faith in the bureaucratic and scientific control of the environment. Contemporary progressive conservationists can be divided, as I have done, into two camps: those who believe that it is no longer possible to maintain a commitment to liberal equality but who nonetheless place their faith in a generally technocratic approach toward environmental problems; and those who attempt to reformulate a liberal approach to environmental issues. The neo-Malthusians have lost Pinchot's optimism about the compatibility of natural resource conservation with a democratic political order, but they retain his faith in the possibility of scientific and bureaucratic protection and wise use of these resources. Others, rejecting the alarmism of the neo-Malthu-

sians, still follow Pinchot by framing environmental issues in terms that reenforce, rather than challenge, liberal democratic politics and principles. This requires, for Nash, a simple extension of liberal rights to all of nature, in order to "round out the American Revolution"; for Stone, a pluralism of liberal values; and for Sagoff, a commitment to a pragmatic and democratic politics. Although they reject Pinchot's utilitarianism, these theorists nonetheless think about the environment as "insiders," from within the liberal democratic order. In fact, Nash and Sagoff claim that proper appreciation and treatment of nature are central to the fulfillment of the promise of traditional American politics. This is also true for the neo-Malthusians, if we recognize that for them the promise has been reduced to its barest essentials. Having turned from the liberalism of Locke to that of Hobbes, they are concerned almost solely with survival and safety in the face of what they see as potentially catastrophic resource constraints.

The pastoral environmentalist literature, in contrast, continues to be a view from the outside—a censure of the character of modern society and its treatment of the natural world. As Leo Marx has observed, "In most American pastorals the movement toward nature also may be understood as a serious criticism, explicit or implied, of the established social order. It calls into question a society dominated by a mechanistic system of value, keyed to perfecting the routine means of existence, yet oblivious to its meaning and purpose."[1] This is as true for the radical environmentalism of deep ecology and biocentric ethics as it is for literary pastorals. Although contemporary pastoral environmentalism often fails to explicitly or convincingly articulate this social criticism, it still emulates Thoreau in trying to offer an alternative moral life, informed by a greater sensitivity to the natural world than is found in contemporary social and political sensibilities.

The continuity of these traditions should not, however, blur the crucial changes that have occurred within them. Contemporary progressive conservationism has broken with Pinchot's utilitarianism, perhaps most clearly in Sagoff's attack on cost benefit analysis. What is more significant is the loss of the originally strong connection between progressive conservationism and liberal justice. Again, Sagoff speaks to this point when he denies that preservation of the environment is directly related to distributive or social justice.[2] Stone's plural-

ism does not offer clear principles for mediating conflicts between environmental concerns and distributive justice, and Nash, too, has little to say about the relationship between the rights of nature and the rights of individuals in society. In all of this genre, the neat connection found in Pinchot's writings between conservation and the cultivation of democratic equality and justice has been severed. No longer is there an explicit argument about the intimate and necessary relationship between these goals. For some theorists, this is the result of their desire to promote an appreciation of nature apart from its utility for humans—as more than simply the source of materials that are an economic precondition for liberal democratic politics. For the more apocalyptic neo-Malthusians, the relationship between conservation and liberal justice is rejected altogether, on the grounds that extreme ecological limitation is incompatible with liberal political institutions. In the case of other theorists (such as Nash), a simple lack of attention to the political implications of their arguments about the moral status of nature has obscured the linkage between a proper respect for nature and political justice.

The most striking development in the pastoral tradition—as it has evolved from the writings of Thoreau, through Muir, to contemporary deep ecologists and biocentric philosophers—is how it too has lost its original political orientation. In the case of deep ecology, the concern with political criticism and reform has been replaced by the preoccupation with a quasi-religious and mystical experience of nature. Biocentric theorists focus primarily on the question of the independent moral status of nature and thus forfeit a well-developed perspective on the relationship between nature and general ethical concerns. For all of these contemporary pastoral theorists, nature is largely unpeopled, and the preservation of wilderness—defined as the natural world separated from and relatively untouched by human society—has all but replaced a vision of a pastoral nature, in which human society is realistically integrated into the natural order.[3] As a result, the pastoral vision is in danger of being supplanted by primitivism, which likewise threatens to lead pastoralism toward an increasingly overt misanthropy.

The original strength of both the pastoral and progressive traditions was rooted in their respective political visions and commitments. Pinchot's tremendous political success grew out of the connection he

made between the public management of natural resources and the values and needs of a liberal democratic society and economy. The power of Thoreau's pastoralism lay in the alternative social and political values he found in nature and in his successful use of these values to instruct a criticism of American society. Nature, for Thoreau, inspired a search for a better political community. Both the pastoral and progressive conservationist traditions, however, have been weakened in the contemporary debates because they have failed to maintain this clarity of political vision. Progressive conservationists have on the whole been unable to integrate the protection and preservation of nature into an overall liberal democratic program of justice and equality. Likewise, contemporary pastoralists have largely been unable to derive a coherent alternative politics and social vision from their deep respect for nature.

This development in both contemporary traditions has made modern environmentalism vulnerable to charges that it is politically naive and perhaps irrelevant, or, more dangerously, that it represents a wholesale retreat from considerations of social and political justice. Hans Magnus Enzenberger, for example, claims that "the social and political thinking of the ecologists is marred by blindness and naiveté."[4] Those who hold a conventional Pinchotian faith in natural resource management and economic growth argue that contemporary environmentalists of all stripes have abandoned a commitment to an expanding economy, which is the prerequisite of political and economic justice. As such, environmentalists have turned their backs on the politically and economically disadvantaged. "Put quite simply," writes William Tucker, "the birth of environmentalism represented a withdrawing of upper-middle-class attention from the interests of the poor and a turning in another direction."[5] In the same vein, Luke Popovitch portrays environmentalists as a privileged elite, determined to protect their own wealth and comforts from demands by the less advantaged: "With patrician surety, environmentalists declare that the party of economic progress is over long before most of the world's people have had their first drink."[6]

Much of this criticism of environmentalism is exaggerated, especially its characterization as an elitist movement with profoundly conservative, if not reactionary, political implications. It is significant, for example, that the group in Congress with the best overall voting rec-

ord on environmental issues is the Congressional Black Caucus—not a group usually associated with the interests of the powerful and privileged.[7] Support for environmental issues is also found among a wide spectrum of the American populace and is no more class-biased than many other major political issues and movements.[8] It is true, nonetheless, that the critics of environmentalism have sensed the degree to which contemporary environmentalist theorists fail to persuasively integrate their views with democratic politics. The story of American environmental theory in the twentieth century is primarily the story of an increasingly obscured political vision.

This weakness has not gone unnoticed by all contemporary environmentalists. There are, in fact, theorists working in both traditions who hope to link their environmentalism to an overall political theory and program, although they are indeed minority voices at present. Perhaps the most important progressive conservationist to make this attempt is Barry Commoner, whose socialism can be reasonably viewed as a contemporary expression of Pinchot's progressive liberalism. His chief concern is to tie his environmentalism to a democratic program of political justice and economic equality. Although his formulation of this justice and equality is further to the left than Pinchot's liberalism, he is still aiming at similar goals for similar reasons. And, as with Pinchot, the central obstacles for Commoner are, first, justifying any independent moral value found in nature apart from its usefulness for an equitable human society, and, second, explaining the institutional means by which the scientific regulation of the environment can be made democratically accountable.

Among pastoralists, it is the Green movement that is attempting to develop a political theory to complement and guide their radical environmentalism. The Greens are still a very small and undeveloped organization in the United States, and their political theory is also not well formulated. There are some in the movement, however, such as Murray Bookchin, who are trying to unite their pastoral environmentalism with an alternative political vision for American society—a vision of decentralized and radically democratic communities. Whatever the problems with Bookchin's political theory, the relationship of the Greens with biocentrism and deep ecology is seriously undermining their ability to develop a consistent, coherent, and powerful political ideal.

For Barry Commoner, the primary source of contemporary environmental problems is our modern productive technologies. "The chief reason for the environmental crisis that has engulfed the United States in recent years is the sweeping transformation of productive technology since World War II."[9] The main culprit in this story is the chemical industry, whose processes and final products are inherently anti-ecological. But modern agriculture (especially to the extent that it has become an arm of the chemical industry), nuclear technology, and the energy industries are all subject to Commoner's technological critique. Generally stated, the defect in these technologies is that they have been developed without concern for environmental impact. More specifically, they introduce pollutants into the environment both at the point of production and, especially in the chemical industry, in the form of finished products. Because these pollutants are typically synthetic substances that do not occur spontaneously in nature (or at least not in these quantities), the ecosystem is ill equipped to cope with them. In short, either synthetic substances that are produced cannot be broken down and integrated into the environment, or improper quantities of naturally existing substances upset natural balances in the ecosystem. This problem is relatively unique to the postwar period because of the revolution that has taken place in the production of synthetic materials and the use of polluting substances in industrial and agricultural technologies since that time.[10]

The tragedy of this situation, for Commoner, is compounded by the fact that it is unnecessary. Although the immediate cause of environmental problems is our contemporary productive technologies, Commoner believes that technological solutions are widely available to us: "The technological basis for the transformation of the present systems of production to ecologically sound ones is largely in hand."[11] Most of the chemical industry's products are replacements of items previously generated from natural materials. Polluting agricultural practices can be discarded in favor of organic farming methods. Energy sources that are nonrenewable and polluting can eventually be superseded by renewable and nonpolluting sources such as solar and hydroelectric power. In fact, the vast majority of environmentally unsound technologies and products could at least in principle be replaced by technologies and products that are already developed and available or will no doubt be discovered in the future. "The problems of industrial and

agricultural pollution, while exceedingly large, complex, and costly, are nevertheless capable of correction by the proper technological means."[12] What is lacking is the economic and political will to pursue these environmentally benign technologies.

Although the problems of pollution are largely caused by technology and are thus subject to technological solution, Commoner is by no means a simple environmental technocrat. It may be true, as one critic has written, that Commoner's "political program depends less on a simple commitment to partisan political change than on a deep belief in technological progress."[13] But this belief in technological progress is itself subordinate to a deeper political analysis. Commoner believes that the source of our technological mistakes is found in two related but distinct social problems: the corruption of contemporary science, and the profit motive in economic production.

The threat to the integrity of science is posed primarily by political pressures. In *Science and Survival*, Commoner notes with alarm that the potentially most environmentally disastrous technology ever known—nuclear weapons—has been developed under politically controlled and covert conditions. This secrecy prevents open discussion among scientists and also precludes any dialogue between the scientists and the citizenry at large. "There is, then, a clear connection between our recent technological mistakes and the erosion of the basic principles of scientific discourse."[14] The loss is twofold: open evaluation within the scientific community of the technical consequences of technological developments is retarded, and the equally important discussion between the scientific community and the democratic community as a whole concerning the moral and political consequences of these developments is also inhibited. Thus, for Commoner, the existence of nuclear weapons illustrates the need for the scientific community to "establish . . . some means of estimating and reporting on the expected benefits and hazards of proposed environmental interventions *in advance*."[15] In addition, a new relationship between scientist and citizen needs to be forged in which this information will be made available for democratic deliberation.[16] Both of these goals are possible only if "scientists . . . find new ways to protect science itself from the encroachment of political pressures."[17]

The second and even more significant factor in the creation of environmentally inappropriate technologies is the structure of capitalist

decision making. "Driven by an inherent tendency to maximize profits, modern private enterprise has seized upon those massive technological innovations that promise to gratify this need, usually unaware that these same innovations are often also instruments of environmental destruction."[18] Technology is not, in and of itself, an environmental problem. In a capitalist society, however, private industry is compelled to develop productive technologies and products that maximize short term profits. As a result, industry fails to add environmental costs into their calculations of profit and loss, since these costs can be passed on to third parties (in most cases, the community at large or future generations) as externalities. Therefore, private industry has little or no incentive to consider the environmental impacts of its technologies. In addition, since they are not held accountable for these external costs, highly polluting technologies tend to be economically most advantageous for industry. The proliferation of polluting enterprises in the postwar period has been the direct result of the private ownership of productive technologies and the drive to maximize profits. For Commoner, therefore, the environmental problems we face are for the most part the direct consequence of capitalist production. If this situation is to be successfully addressed, some form of public control of the productive process is required. "Hence an economic system which is fundamentally based on private transactions rather than social ones is no longer appropriate and increasingly ineffective in managing this vital social goal. The system is therefore in need of change."[19] The change that he recommends is toward democratic socialism.

The same analysis that leads Commoner from environmentalism to a more general political commitment to socialism has also led him to be highly critical of certain developments within the environmental movement. His conventional foes are the neo-Malthusians, with whom he has a number of serious grounds for disagreement. First, his own assessment of the cause of environmental problems suggests that it is grossly misleading to blame environmental deterioration on population growth: "The earth is polluted neither because man is some kind of especially dirty animal nor because there are too many of us. The fault lies with human society—with the ways in which society has elected to win, distribute, and use the wealth that has been extracted by human labor from the planet's resources."[20] Nor is eco-

nomic growth per se a threat to the base of natural resources. The danger to resource supplies is caused by the particular form that economic expansion takes in a capitalist society, rather than by "growth" in a generic sense. Past shortages have been "brought about not by some abstract, mindless force called 'growth,' but by deliberate human actions, motivated by an *economic* factor—the desire to maximize profits."[21] Finally, Commoner is appalled by the politically repressive implications of neo-Malthusianism. Those theorists may be willing to sacrifice liberty and justice for the sake of preserving the earth from environmental disaster, but Commoner believes this is both unnecessary and politically irresponsible. "This, it seems to me, is the main lesson to be learned from both the environmental crisis and the population problem—that if we would survive and preserve both our natural heritage and our own humanity, we must at last discover how to solve, by social means, the social evils that threaten both."[22] The concern for political justice cannot, for Commoner, be separated either empirically or morally from environmental reform.

This view makes Commoner uncomfortable with other elements of contemporary environmentalism as well. Many of the defects in environmentalist politics, he believes, can be traced to an unsophisticated grasp of the economic and political forces responsible for our environmental problems. This failing induces environmentalists to regard environmental concerns as politically neutral. If it is true, as some think, that scientific principles of ecology can by themselves guide a program of environmental reform, then the temptation is to take the "soft" political path toward this reform. Thus, established environmental groups resort to conventional interest-group lobbying to promote environmental protection, in the hope that public policy can be shaped to be more sensitive to ecological imperatives. The flaw in this strategy is that it does not confront the actual source of environmental problems—our productive technologies and the economic system that promotes and benefits from them. Environmental groups end up proposing and supporting legislation that attempts to control the impact of pollution, rather than challenging the technologies that produce this pollution in the first place. This strategy is bound to fail, since it treats only the symptoms without curing the disease. "There is a basic flaw embedded in the U.S. environmental laws: they activate the reg-

ulatory system only after a pollutant has contaminated the environment—when it is too late."[23]

Likewise, radical environmental theorists such as Kirkpatrick Sale reflect this lack of political sophistication when they promote alternative visions of an environmentally sound lifestyle and social organization on what they consider neutral ecological grounds. In Commoner's opinion, this gives their views a politically naive (if not utopian) quality, since they do not develop a plan for countering the powerful groups whose interests are intimately tied to the proliferation of environmentally unsound institutions and practices.[24]

For Commoner, "Environmental protection is neither [politically] innocuous nor unrelated to basic questions of social justice."[25] In fact, there is "an unbreakable link between the environmental issue and all the other troublesome political issues."[26] Commoner's environmentalism thus grows out of and reinforces his broader political commitments, and it is here that Commoner's relationship to the progressive conservation tradition becomes clear. As we saw in the first chapter, conservation for Pinchot was necessary because of market failures: The promise of short-term profits tempted industry to use natural resources without regard for their long-term availability. In this way the economic system provided incentives for the systematic waste and possible destruction of its own resource base. Pinchot's goal was to preserve, through the scientific and public management of the nation's resources, the wealth of raw materials necessary to sustain an economic system premised on equality of opportunity and private property. His conservationism was therefore a vital ingredient of his overall liberal conception of distributive justice. Pinchot was optimistic that the public and scientific regulation of natural resources would serve to correct the failures of the market without undermining an essentially capitalist economic order, which in turn provided the material foundation of a liberal democratic order.

The problems Commoner identifies are more extreme, but not fundamentally different from those detected by Pinchot. Commoner's main concern is the exploitation of natural resources by private interests, but this problem is more pervasive, more deeply rooted in capitalist production, than Pinchot found in his own era. The nature of contemporary pollution, like the natural resource situation addressed by Pinchot, basically follows the pattern of the plunder of

"the commons." But today's private exploitation of nature is more concealed, pervasive, and threatening. "This time the world is being plundered in secret."[27] Because this plundering is systemic, tied to the core processes and technologies of capitalist production, the simple regulation of capitalism will no longer suffice. If productive technologies are to be altered to conform to environmental needs and natural processes, the means by which decisions about production and technology are made will themselves have to be changed. No longer can these be private choices, motivated by narrow economic interests. Rather, production decisions must become politicized, democratically informed, and publicly accountable. The bureaucratic regulation of capitalist society is no longer satisfactory. Rather, socialist planning must replace private ownership of productive processes. Only then will democratic control and protection of natural resources be assured. For Pinchot, private incentives could be combined with public management of natural resources to prevent the waste of these resources. For Commoner, nothing short of socialist control of the system of production can eliminate the structural incentives for pollution and the destruction of the natural world: "The remedy for our spectacular failure to clean up the environment is public participation in the until now private decisions about how goods and services are produced."[28]

No contemporary environmental theorist has been more intent than Commoner on maintaining the connection, originally found in Pinchot's work, between conservation and distributive justice. Like Pinchot, Commoner is committed to an expanding economy. Like Pinchot, he is confident that there are technical solutions to our resource problems, needing only a suitable political environment within which they can be developed and controlled. And finally, like Pinchot, Commoner believes that this political foundation must be committed to liberal equity and economic prosperity if it is to be successful and morally justifiable.

Of the numerous criticisms leveled at Commoner, two are especially illustrative of the problems raised by his progressive conservationism. Eugene Hargrove has criticized Commoner's "third law of ecology"—"nature knows best"[29]—as a form of "environmental therapeutic nihilism." For Hargrove, this "law" is doubly dangerous. First, it suggests that humans should refrain as much as possible from inter-

fering with natural processes, which, he argues, can lead to "a peculiar kind of callousness toward wild animals."[30] Second, "Therapeutic nihilism may sometimes allow environmental managers to avoid confronting their environmental values altogether."[31] Hargrove's premise, however, is entirely unfounded, because Commoner is not, by any means, an environmental nihilist. In fact, Charles Rubin is much closer to the truth when he writes that Commoner believes "that the world is man's to plan and mold according to his will."[32] Yet the truth that Hargrove stumbles on is that Commoner has very little to say about the intrinsic moral worth of the natural world. In all of Commoner's chronicles of environmental problems, his focus is consistently and clearly on human welfare. Hargrove is thus correct to suggest that Commoner's views do not force us to think of the possible independent moral value of nature; in fact, they might well be compatible with a lack of moral concern for the interests of other organisms insofar as they conflict with or are indifferent to the general human interest in maintaining a stable, healthy ecosystem. Because of his fundamentally humanist loyalties, Commoner, like Pinchot, will not satisfy contemporary environmental theorists looking to establish the intrinsic value of nature.

Commoner has also been accused (as was Pinchot) of having a technocratic attitude toward the environment. This is Rubin's point when he contends that Commoner offers us only "the promise of future technological development."[33] This claim is no more convincing than the "technocratic" reading of Pinchot. For both theorists, the technology (whether productive or administrative) of environmental management can only be successful in a particular political context that is informed by democratic values. Although both are optimistic about the technological possibilities of environmental control and "wise use," their commitments to distributive justice and democratic society precede their commitment to technology.

Rubin's stronger point is more subtle and applies to Pinchot as well as to Commoner: "It is ironic, given this [technological] optimism, that . . . [Commoner never] seriously addresses the basic political tension in a liberal regime between the populist benefits of the *dissemination* of technological growth and the centralizing, expert-driven tendencies of its *development*."[34] Commoner is a fervent advocate of democratic socialism, but the details of how to prevent the socialist

control of production from becoming a bureaucratic leviathan are not well-developed in his writings. This in fact holds true for many democratic socialists, who have yet to solve the problems of removing the capitalist market from the center of economic decision making and replacing it with a centralized state apparatus that maintains its democratic accountability.

All of this suggests that Commoner has inherited the virtues as well as the vices of the progressive conservation tradition. On the one hand, he stands out among contemporary environmentalists for attempting to forge a strong link between his environmentalist commitments and his more general commitments to democracy and justice. On the other hand, he is subject to the same blindness to the independent worth of natural objects, as well as to the potential political dangers of bureaucratic and technological control of the environment, that we find in Pinchot. The tensions between these virtues and vices of the progressive conservation tradition have yet to be resolved.

The current political expression of the American pastoral tradition is the small but ambitious Green movement. At present, this movement is only a loose affiliation of radical local environmental groups, but there are hopes for its future growth and an emerging literature that can be identified with this ambition. Largely inspired by the German Greens, many environmentalists in the United States have sought to learn from the German electoral success and perhaps reproduce it in this country. There are reasons to believe, however, that serious obstacles face the development of any American Green movement—obstacles that reflect the history of the American pastoral tradition.

Fritjof Capra and Charlene Spretnak, in *Green Politics*, their report on the German Green movement, argue that there are four "pillars" to Green politics: deep ecology, "social responsibility" (a basic commitment to equity and justice), decentralized participatory democracy, and nonviolence.[35] As Capra and Spretnak point out, this set of values has caused a number of problems within the German Green movement. For example, the second tenet includes a commitment to feminism that may potentially collide with the third, such as when a locality or independent nation chooses to not respect feminist values.[36] In the United States, the potential conflict between deep ecology

and the political values of democracy and social justice is already threatening to split the movement in its infancy.

In the American Green movement, the most important theorist to attempt to locate his environmentalism within a broader political theory is Murray Bookchin. Like Commoner, Bookchin has argued throughout his career that environmental problems are the direct consequence of unjust social institutions. "Every ecological problem that we face today apart from those caused by nature itself has its roots in social problems."[37] But unlike Commoner, Bookchin contends that although these problems take especially severe form in capitalist society, their origin transcends the particular institutions of contemporary society. Bookchin's historical thesis is that environmental problems are the consequence of the ancient human attempt to dominate nature, rather than live in harmony with it. And this drive to dominate has been the immediate and ongoing result of inequitable relationships between human beings. "The notion that man must dominate nature emerges directly from the domination of man by man."[38]

Bookchin's environmentalism is thus fundamentally a social theory, which he calls "social ecology." A central premise is that there was a time in human evolution when communities were characterized by an absence of social hierarchy or social inequality, as well as by a more ecological and harmonious relationship with the natural world. These traditional tribal communities, or "organic societies," are social as well as environmental models, since they illustrate that in just human communities there is no division between human interests and ecological imperatives. The qualities of nature are reflected within them and provide the foundation for ethical social and ecological relationships. Through his anthropological study of these societies and his direct observation of nature, Bookchin wishes to "evoke nature for an objectively grounded ethics."[39] His claim is that organic societies, and the natural world from which they arise, are distinguished by nonhierarchy, spontaneity, and "unity in diversity." These moral qualities are the antithesis of those found in societies (such as our own) marked by social inequality and human domination—hierarchy, conformity, and unfreedom.

Bookchin therefore believes that at its core, the environmental problem is one of reintegrating human society into "natural evolution."[40] This would not require that humans refrain from altering the natural

world, but it would dictate a different kind of intervention and partnership with nature than is found in all hierarchical human communities. "What is warped about the human condition is not that people actively intervene in nature and alter it, but that they intervene actively to destroy it because humanity's *social* development has been warped."[41] In an "organic" or ecological society, nature and humans harmoniously interact, each constructively shaping the other. "Our reentry into natural evolution is no less a humanization of nature than a naturalization of humanity."[42] Bookchin's clearly pastoral vision is that human society becomes reintegrated into natural processes, not as a passive component of the ecosystem, but as an active participant in the molding of the natural world. This pastoral community stands in contrast to hierarchical communities in which nature, like much of humanity, is simply to be subdued, dominated, and exploited for personal gain. Bookchin's environmentalist social theory provides a fairly detailed picture of a just political community, deduced from the lessons of nature, as well as a theoretical perspective from which to criticize contemporary social and political institutions.

There are, however, serious objections that can be raised to social ecology. Empirically, Bookchin's anthropology significantly romanticizes traditional premodern communities, and his understanding of biological and ecological processes will appear remarkably benign to those with a more conventional Darwinian view. More important, however, is the philosophical problem that Bookchin shares with the deep ecologists and the biocentric theorists discussed in previous chapters: how to derive moral imperatives from empirical observations about nature or premodern "natural" human communities. Even if Bookchin's descriptions of nature and organic societies are accurate, it is difficult to understand how they can lead to "objective" moral principles for a modern industrial society. Bookchin, as noted before, claims that nature can provide the foundation for an "objectively grounded ethics." He then explains that he uses nature as a "matrix" for ethics, rather than as the direct source of ethics, thus greatly softening and obscuring the original claim.[43] As Robyn Eckersley rhetorically asks, "What is it about Bookchin's evolutionary path of mutuality, diversity, and 'advancing subjectivity' that makes it the good and true path as compared to, say, Herbert Spencer's strug-

gle of the fittest?"[44] Bookchin has yet to give a satisfactory answer to this question.

Despite these difficulties, Bookchin's significance as a pastoral environmental theorist lies in his consistent attempt to keep political theory at the center of his environmental theory. His fundamental concern with social issues, his contention that environmentalism cannot be separated from a critical analysis of the structure of contemporary society, and his belief that nature provides the guidance for such a radical political analysis, all make Bookchin the most important contemporary American environmentalist to retain Thoreau's original political focus.

Because of this philosophical grounding, Bookchin rejects all biocentric theories that place the moral status of nature above that of humans.[45] As a result, he has become involved in a rather vicious series of polemical exchanges with other radical environmentalists, primarily deep ecologists. Bookchin has no sympathy with those who would simply preserve wilderness, untouched by human intervention, or those whose love of nature leads to a misanthropic attitude. As a major voice within the Green movement in the United States, Bookchin is anxious to disassociate himself (and the Greens as a whole) from the radical biocentrism of deep ecology and such groups as Earth First! "If the U.S. Greens adopt deep ecology's biocentrism, its denigration of human worth, its mystical thrust, and its subordination of social issues to a notion that places 'wilderness' before society as a 'real world' . . . they will eventually become a cult rather than a movement."[46] Bookchin has only scorn for such biocentrism, and he has gone so far as to accuse certain advocates of these views, such as Earth First!'s Dave Foreman and Edward Abbey, of being fascists.[47] Bookchin fears, not without reason, the antihuman, irrationalist, and undemocratic tendencies within these elements of the radical environmental movement.[48] Robyn Eckersley, writing from a deep ecology perspective, has critically observed that Bookchin is more concerned with organic agriculture than with wilderness preservation.[49] This, in fact, is probably true and serves to highlight the different directions taken by deep ecology and Bookchin's social ecology.[50] From Bookchin's pastoral perspective, the problem is to ecologically integrate the human community into the natural world, not to segregate this world from human contact and development.

Within the Green movement, there has been a mixed response to Bookchin's attack on deep ecology. One group calling itself the North California Greens has angrily rejected Bookchin's critique.

> Mr. Bookchin's assertion in the alternative media that the American Green movement is at a crisis point, struggling with the decision to have concern for social justice (that is, follow Mr. Bookchin) or have no concern for social justice (that is, follow deep ecology) is an insulting fabrication. The thousands of GCofC [Green Committee of Correspondence] members have come into the movement because they care deeply about ecological wisdom *and* social justice *and* peace with real security.[51]

Although they do not explain how "ecological wisdom," by which they presumably mean the wisdom of deep ecology, can be reconciled with a strong commitment to social justice, they clearly reject Bookchin's claim that the two are incompatible. Other theorists have attempted a more conciliatory approach to the dispute, hoping to seal the rift between Bookchin and deep ecology and keep them both within the Green movement. Brian Tokar calls for a truce, since he is fearful that the "emerging Green movement in the United States threatens to pick itself to pieces before it even has a chance to seriously take on the powers that be."[52] Kirkpatrick Sale likewise suggests that "the questions here are ones of emphasis and priority, not of fundamental incompatibility."[53]

Until recently, however, Bookchin has not been interested in a reconciliation with deep ecology. In response to Sale's overture, Bookchin simply reiterated his claim that "deep ecology is becoming one of the most pernicious ideologies to invade the ecology movement in the United States."[54] His censure of deep ecology has exposed a serious fracture within the Green movement that will not easily mend, given the appeal that deep ecology holds for a significant proportion of its membership. In some recent exchanges with Dave Foreman, Bookchin has moderated his criticism of deep ecology—presumably because he wishes to minimize any political damage to the environmental movement that may result from such a bitter division over this issue. It is clear, however, that the armistice between himself and Foreman is an unstable and tenuous one at best.[55]

From a historical perspective, Bookchin's dispute with deep ecologists and other potential allies in the Green movement illustrates a recurring problem within the tradition of American pastoral environmentalism. Ever since Muir shifted the focus of this tradition from radical political criticism to individual salvation, it has been difficult to revive Thoreau's original political project. Even the most politically oriented arm of contemporary pastoralism, the Green movement, has not been able to maintain its political footing. Instead, as Bookchin fears, it is tempted by the biocentrism, irrationalism, and appeal to personal lifestyles of deep ecology. To the degree that the movement succumbs to this temptation, the Greens will be checked, as Bookchin suggests, in their development as a viable political movement with a well-conceived critical political theory.

The environmentalist literature discussed in this book is still in its youth. There are many problems yet to be resolved, some of which I have attempted to explain and trace. Despite the criticisms I have offered, it is important to remember that the recent outpouring has been triggered by an environmental crisis of tremendous scope and severity. Only recently, and quite reluctantly, have we become aware of the extraordinary damage contemporary societies have inflicted on the nonhuman world. Only as this damage reaches what appear to be catastrophic proportions are we becoming sensitive to the fact that our relationship to our natural environment is fundamental to all other relations: The very preconditions for human (and other) life have become threatened by modern production and warfare. Although environmental thinkers are still struggling to understand the ethical and political implications of this crisis, they are forcing us to address issues of the greatest theoretical and practical importance.

The dramatic nature of contemporary environmental problems, and the theoretical writings they have generated, pose a question for American political theory: How does one account for and integrate an appropriate understanding of nature within a more general theory of politics? The urgency of this query has not even been acknowledged by most political theorists, yet it is a problem that we absolutely must confront, for it bears directly on the future of our liberal democratic political institutions. Perhaps the single most influential observation

in the contemporary environmentalist literature is Lynn White's claim in "The Historical Roots of Our Ecologic Crisis" that the anthropocentrism of traditional Christianity is largely responsible for our abuse of the environment and that this abuse will continue until we purge this viewpoint and replace it with a more environmentally acceptable religious perspective.[56] There is another comment in his essay, however, that has gone largely unnoticed even though it raises a political question of supreme importance: "Our ecologic crisis is the product of an emerging, entirely novel, democratic culture. The issue is whether a democratized world can survive its own implications."[57]

The responses given to this question by the two traditions of American environmental political thought are not as completely developed or satisfactory as we might desire. Nonetheless, the best of the progressive conservation tradition reminds us that any reform of our relations with the natural world must be in harmony with the greatest of our democratic values—equality and freedom. The best of the pastoral tradition teaches us that such a reform must challenge the human arrogance and crude materialism found in much of liberal society. Whether or not humility before nature can be integrated with a commitment to democratic life is the question that remains to be answered, and we cannot avoid it any longer.

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Notes

CHAPTER 1. THE PASTORAL AND PROGRESSIVE VISIONS

1. A recent *New York Times*/CBS News poll reports that 84 percent of Americans believe that pollution is a serious national problem that is getting worse, and 74 percent believe that protecting the environment "is so important that requirements and standards cannot be too high, and environmental improvements must be made regardless of cost." *New York Times*, 17 April 1990, A1, B10.

2. Consider the following passage from C. B. Macpherson, *The Life and Times of Liberal Democracy* (New York: Oxford University Press, 1977), p. 22: "It is no longer necessary [to link democracy with market mechanisms] . . . if we assume that we have now reached a technological level of productivity which makes possible a good life for everybody without depending on capitalist incentives. That assumption may of course be challenged. But if it is denied, then there seems no possibility of any new model of democratic society, and no point in discussing such a model under any designation, liberal or otherwise."

3. Lynn White writes that "our ecologic crisis is the product of an emerging, entirely novel, democratic culture." *Machina ex Deo* (Cambridge, Mass.: MIT Press, 1986), p. 79.

4. See Robert Heilbroner, *An Inquiry into the Human Prospect* (New York: Norton, 1980). Discussing the changes that will be forced on society by increasing environmental limitations, he writes (p. 106): "I do not see how one can avoid the conclusion that the required transformation will be likely to exceed the capabilities of representative democracy."

5. Marc Landy, Marc Roberts, and Stephen Thomas, *The Environmental Protection Agency* (New York: Oxford University Press, 1990), p. 5.

6. Leo Marx, *The Machine in the Garden* (New York: Oxford University Press, 1964), p. 365.

7. Henry David Thoreau, *The Portable Thoreau*, ed. Carl Bode (New York: Penguin, 1977), p. 609.

8. Ibid., p. 611.

9. Henry David Thoreau, *A Week on the Concord and Merrimack Rivers. Walden; Or, Life in the Woods. The Maine Woods. Cape Cod* (New York: Viking Press, 1985), p. 712. These four books are published together in this edition.

10. Thoreau, *The Portable Thoreau*, pp. 609–10.

11. Thoreau, *A Week on the Concord and Merrimack Rivers*, p. 645.

12. Roderick Nash, *Wilderness and the American Mind* (New Haven, Conn.: Yale University Press, 1967), p. 91.

13. Thoreau, *The Portable Thoreau*, p. 557.

14. Nash, *Wilderness and the American Mind*, p. 93.

15. In *Cape Cod*, there are passages much like that referred to above from *The Maine Woods*, where Thoreau seems to be quite alienated from the raw, untamed nature that he found. Describing the seashore, he writes, "There is naked Nature,—inhumanly sincere, wasting no thought on man, nibbling at the cliffy shore where gulls wheel amid the spray." *A Week on the Concord and Merrimack Rivers*, p. 979.

16. For such a reading, see Max Oelschlaeger, *The Idea of Wilderness: From Prehistory to the Age of Ecology* (New Haven, Conn.: Yale University Press, 1991). Oelschlaeger writes (p. 139) that "Thoreau's goal . . . is to rekindle a primitive (savage, Paleolithic, archaic, or Indian) awareness of the Magna Mater."

17. Thoreau, *A Week on the Concord and Merrimack Rivers*, p. 46.

18. This is from "A Natural History of Massachusetts," *The Portable Thoreau*, p. 56.

19. Ibid., p. 614.

20. Ibid., p. 615.

21. Ibid., p. 286. Passages such as this should make us very skeptical of Oelschlaeger's interpretation of *Walden* when he writes: "Thoreau went to Walden to discover primal ways of living. . . . So viewed, the Walden project is an anthropological inquiry: an attempt to uncover the outlines of archaic culture, to recapture a Paleolithic consciousness, and to become a man of Indian wisdom." *The Idea of Wilderness*, pp. 153–54.

22. See "A Plea for Captain John Brown," in Henry D. Thoreau, *Reform Papers*, ed. Wendell Glick (Princeton, N.J.: Princeton University Press, 1973), p. 113. For another interesting contrast between Native Americans and "civilization"—that is, the European settlers in America—see the story of Hannah Dustan in *A Week on the Concord and Merrimack Rivers* (pp. 262–64). In a raid on her village, Dustan is taken from childbed, her "infant's brains dashed out against an apple-tree," and held captive with her nurse and an English boy. On instruction from Dustan, the boy learns from one of the Indians how to kill and scalp a person, and the three captives put this newfound knowledge to work at the earliest convenience, killing ten of the twelve Indians in the family that held them. They fled but then returned to take the scalps of their victims as proof of their ordeal. This grisly story should give pause to all those who emphasize Thoreau's primitivism. It is the Indians, as Thoreau relays the story, who commit the first crime—the murder of Dustan's newborn child—and it is from them that Dustan learns the brutal skills necessary to secure her own escape.

23. Thoreau, *The Portable Thoreau*, p. 295.

24. Wilson Carey McWilliams, *The Idea of Fraternity in America* (Berkeley and Los Angeles: University of California Press, 1974), p. 292.

25. Robert Richardson writes, in his wonderful intellectual biography of Thoreau, that Thoreau "came to value the Roman agricultural writers Varro, Columella, and Cato as much or more than Homer, as he came to believe that the cultivation of one's self has a good deal in common with the cultivation of the soil. He made his Walden Pond bean field a major metaphor for his particular idea of self-cultivation, which was to avoid the extremes of over-refinement on one side and savagery on the other." *Henry Thoreau: A Life of the Mind* (Berkeley and Los Angeles: University of California Press, 1986), p. 57.

26. Thoreau, *The Portable Thoreau*, p. 33.

27. Ibid., p. 592.

28. Ibid., p. 593.

29. Ibid., p. 131.

30. Ibid., p. 120.

31. Ibid.

32. Ibid., p. 133.

33. Ibid., p. 120.

34. Nash, *Wilderness and the American Mind*, p. 87.

35. Ibid., p. 89.

36. Henry D. Thoreau, *Early Essays and Miscellanies*, ed. Joseph J. Moldenhauer et al. (Princeton, N.J.: Princeton University Press, 1975), p. 108.

37. Ibid., p. 109.

38. Ibid., p. 110.

39. Ibid., p. 111.

40. Ibid., p. 113.

41. Thoreau, *The Portable Thoreau*, p. 337.

42. "I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived" (ibid., p. 343).

43. Ibid., p. 348.

44. Ibid., p. 263.

45. Ibid., p. 560.

46. Ibid., p. 568.

47. Ibid., p. 570.

48. Ibid., p. 56.

49. Thoreau, *Reform Papers*, p. 45.

50. Thoreau, *The Portable Thoreau*, p. 266.

51. Ibid., pp. 466–67. Richardson writes, "In the end, *Walden* is not about submission to nature. . . . Nature teaches us to want to reach beyond nature." *Henry Thoreau*, p. 310.

52. Ibid., p. 344.

53. Ibid., p. 345.

54. "The luxury of one class is counterbalanced by the indigence of another" (ibid., p. 289).

55. Ibid., p. 324.

56. The phrase is from "A Life without Principle," ibid, p. 632.

57. Ibid., p. 421.

58. Ibid., p. 383.

59. Ibid., p. 557.
60. Ibid., p. 567.
61. Bryan Norton calls Thoreau a "moral naturalist in that he believed we can learn to live by observing the ways of nature." "Thoreau's Insect Analogies: Or, Why Environmentalists Hate Mainstream Economists," *Environmental Ethics* 13 (Fall 1991): 235. Richardson writes that "Thoreau's life can be thought of as one long uninterrupted attempt to work out the practical concrete meaning of the Stoic idea that the laws ruling nature rule men as well." *Henry Thoreau*, p. 191.
62. Gifford Pinchot, *The Fight for Conservation* (New York: Doubleday, Page and Co., 1910), p. 4.
63. Ibid., p. 20.
64. Gifford Pinchot, *Breaking New Ground* (New York: Harcourt, Brace and Co., 1947), p. xvi.
65. George Perkins Marsh, *Man and Nature* (Cambridge, Mass.: Harvard University Press, 1965), p. 36.
66. Ibid., p. 43.
67. Ibid., p. 96.
68. Ibid., p. 112.
69. Ibid., p. 36. Marsh's language here suggests that he has in mind Jefferson's famous letter to Madison (6 September 1798): "I set out on this ground, which I suppose to be self-evident, that the *earth belongs in usufruct to the living*; that the dead have neither powers nor rights over it" (Thomas Jefferson, *The Life and Selected Writings of Thomas Jefferson*, ed. Adrienne Koch and William Peden [New York: Modern Library, 1944], p. 488). Although Jefferson's remarks clearly emphasize the rights of use by the living generation, Marsh reminds us that usufruct is the use and enjoyment of the fruits of that which belongs to another—i.e., all future generations.
70. Marsh, *Man and Nature*, p. 13.
71. Ibid., pp. 51–52.
72. Ibid., p. 51.
73. Ibid., p. 35.
74. Ibid., pp. 91–92.
75. Ibid., p. 204.
76. Gifford Pinchot, *A Primer of Forestry*, Department of Agriculture, Division of Forestry Bulletin no. 24, pt. 2 (Washington, D.C.: Government Printing Office, 1905), p. 7.
77. Stephen Fox, *John Muir and His Legacy* (Boston: Little, Brown, 1981), p. 111.
78. Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Cambridge, Mass.: Harvard University Press, 1959), p. 2.
79. Gifford Pinchot, *A Primer of Forestry*, Department of Agriculture, Division of Forestry Bulletin no. 24, pt. 1 (Washington, D.C.: Government Printing Office, 1900), p. 7.
80. Pinchot, *Breaking New Ground*, pp. 31, 77, 1.
81. Pinchot, *The Fight for Conservation*, pp. 29–30.
82. Ibid., p. 11.

83. Dwight Waldo, *The Administrative State* (New York: Holmes and Meier, 1984), p. 73.
84. Pinchot, *The Fight for Conservation*, p. 88.
85. Ibid., p. 24.
86. Grant McConnell, "The Conservation Movement—Past and Present," *Western Political Quarterly* 7 (September 1954): 467.
87. Pinchot, *The Fight for Conservation*, pp. 43, 44, 46.
88. Ibid., p. 81.
89. Ibid., p. 91.
90. Ibid., p. 114.
91. Ibid., p. 93. For Pinchot's pride in fighting corruption and inefficiency in the Forest Service, see *Breaking New Ground*, p. 166.
92. See chapter 8 of *The Fight for Conservation*, which is entitled, "Public Spirit." Calling for young men to meet the challenges of patriotic public service, he writes (p. 96): "Public spirit is the one great antidote for all the ills of the Nation, and greatly the Nation needs it now."
93. Pinchot, *Breaking New Ground*, p. 11.
94. Ibid., p. 17.
95. "What, in general, was the body of faith bequeathed to public administration by reformism and Progressivism? At the heart of the faith was the postulate that 'true' democracy and 'true' efficiency were not incompatible." Waldo, *The Administrative State*, p. 130.
96. Pinchot, *Breaking New Ground*, pp. 28–29.
97. Ibid., p. 29.
98. Ibid.
99. Pinchot, *The Fight for Conservation*, p. 45.
100. Ibid., p. 102.
101. Ibid., p. 147.
102. Thoreau, "Civil Disobedience," *The Portable Thoreau*, pp. 116–17.
103. Thoreau, *Reform Papers*, p. 99.
104. Bill McKibben, *The End of Nature* (New York: Random House, 1989), p. 175.
105. Nash, *Wilderness and the American Mind*, p. 135.

CHAPTER 2. SCARCITY BEYOND INEFFICIENCY: NEO-MALTHUSIAN FEARS

1. Grant McConnell, "The Conservation Movement—Past and Present," *Western Political Quarterly* 7 (September 1954): 466.
2. Ibid., p. 477.
3. Garrett Hardin, "The Tragedy of the Commons," in *Toward a Steady State Economy*, ed. Herman E. Daly (San Francisco: W. H. Freeman, 1973), p. 147.
4. Ibid., p. 142.
5. Ibid., p. 145.
6. Ibid.

7. Garrett Hardin, *Exploring New Ethics for Survival* (New York: Viking, 1972), p. 189.
8. Hardin, "Tragedy of the Commons," p. 142.
9. Paul Ehrlich, *The Population Bomb* (San Francisco: Sierra Club, 1969), p. 96.
10. Ibid., p. 29.
11. Ibid., p. 13.
12. Ibid., p. 36.
13. Ibid., p. 57.
14. Ibid., p. 6.
15. Ibid., p. 149.
16. Ibid., p. 124.
17. Ibid., pp. 124–25.
18. Ibid., p. 123.
19. Ibid., p. 121.
20. Robert Heilbroner, *An Inquiry into the Human Prospect* (New York: Norton, 1980), p. 110.
21. Ibid., p. 109.
22. Ibid., p. 151.
23. Ibid., p. 47.
24. Ibid., p. 102.
25. Ibid., p. 130.
26. Ibid., pp. 25, 176.
27. Ibid., p. 106.
28. Ibid., pp. 172–73.
29. William Ophuls, *Ecology and the Politics of Scarcity* (San Francisco: W. H. Freeman, 1977), p. 7.
30. Ibid., p. 43. See p. 1 for Ophuls's reference to the energy crisis.
31. Ibid., p. 47.
32. Ibid., p. 13.
33. Ibid., p. 9.
34. Ibid., p. 120.
35. Ibid., p. 184.
36. Ibid., p. 185.
37. Ibid., p. 187.
38. Ibid., p. 197.
39. Ibid., p. 11.
40. Ibid., p. 144.
41. Ibid., p. 145.
42. Ibid., p. 152.
43. Ibid.
44. Ibid., p. 231; see also p. 3.
45. Ibid., pp. ix, 222. This promised work has not yet appeared.
46. Ibid., p. 9.
47. Ibid., p. 134.
48. Ibid., p. 137.
49. Ibid., p. 148. Ophuls does not seem to recognize that for Hobbes the

problem of scarcity concerns human psychology—the never-ending desire for power—rather than limited material resources.

50. Ibid., p. 151.
51. Ibid., p. 154.
52. Ibid., p. 155.
53. Ibid., p. 226.
54. Ibid., p. 156.
55. Ibid., p. 163.
56. Ibid.
57. Ibid., p. 10.
58. Ibid., pp. 236–37.
59. Ibid., p. 234.
60. Ibid., p. 233.
61. Ibid., p. 236.
62. Ibid., p. 232.
63. Ibid., p. 240.
64. Ibid., p. 241.
65. William Ophuls, "Leviathan or Oblivion?" in *Toward a Steady State Economy*, ed. Herman E. Daly (San Francisco: W. H. Freeman, 1973), p. 227.
66. Ophuls, "Leviathan or Oblivion?" p. 229; "The Return of Leviathan," *Bulletin of Atomic Scientists*, March 1973, p. 52; "The Scarcity Society," *Harper's*, April 1974, p. 47.
67. "Let me state quite clearly that I take no delight in my conclusions, and I certainly did not set out to reach them." *Ecology and the Politics of Scarcity*, p. x.
68. Ophuls, "Leviathan or Oblivion?" p. 225.
69. Julian L. Simon, *The Ultimate Resource* (Princeton, N.J.: Princeton University Press, 1981). For an overview of these arguments, see pp. 5–8. Later chapters develop the claims made in this introductory passage.
70. George Eckstein, "Heading for Apocalypse?" *Dissent* 22 (Winter 1975): 36.
71. Susan M. Leeson, "Philosophical Implications of the Ecological Crisis: The Authoritarian Challenge to Liberalism," *Polity* 11 (Spring 1979): 315; Ophuls, *Ecology and the Politics of Scarcity*, pp. 203–6.
72. David Orr and Stuart Hill, "Leviathan, the Open Society, and the Crisis of Ecology," *Western Political Quarterly* 31 (December 1978): 464.
73. Robert Paehlke, "Democracy, Bureaucracy, and Environmentalism," *Environmental Ethics* 10 (Winter 1988): 296.
74. Ibid., p. 308. For Paehlke's full argument about the relationship between environmentalism and democratic politics, see his *Environmentalism and the Future of Progressive Politics* (New Haven, Conn.: Yale University Press, 1989).
75. J. Donald Moon, "Can Liberal Democracy Cope with Scarcity?" *International Political Science Review* 4, no. 3 (1983): 388. See too p. 390.
76. Ibid., p. 391.
77. Ibid., p. 395. Robert Hoffert also challenges Ophuls's characterization of Locke in particular and liberalism in general: "Liberalism was not built to

reflect or serve naive claims of abundance or, even, of optimism. It was always much more anxious and tentative, middling in its claims." "The Scarcity of Politics: Ophuls and Western Political Thought," *Environmental Ethics* 8 (Spring 1986): 14.

78. Moon, "Can Liberal Democracy Cope with Scarcity," p. 398.
79. Ibid., p. 396.
80. Robert D. Holsworth, "Recycling Hobbes: The Limits to Political Ecology," *Massachusetts Review* 20 (Spring 1979): 10.
81. See Hoffert, "The Scarcity of Politics," pp. 14–16.
82. William Tucker, writing from a conservative perspective in his *Progress and Privilege* (Garden City, N.Y.: Anchor Press, 1982), makes much the same point as these left-wing critics, although his target is less the neo-Malthusian environmentalists than the ecology movement as a whole.
83. Hans Magnus Enzenberger, "A Critique of Political Ecology," *New Left Review*, no. 84, March–April 1974, p. 10.
84. Ibid., p. 13.
85. Ibid., p. 15.
86. James Ridgeway, *The Politics of Ecology* (New York: Dutton, 1970), p. 194.
87. Hoffert, "The Scarcity of Politics," p. 16.
88. Ehrlich, *The Population Bomb*, p. 163.
89. Ophuls, *Ecology and the Politics of Scarcity*, p. 151.
90. Quoted in ibid., p. 155.
91. Garrett Hardin, *Filters against Folly* (New York: Viking, 1985), p. 201.
92. It is noteworthy that Hardin refers to Ophuls as "one of our most perceptive political scientists" (ibid., p. 209).
93. Ophuls, *Ecology and the Politics of Scarcity*, p. 227.
94. Ibid., p. 195.
95. Heilbroner, *An Inquiry into the Human Prospect*, p. 108.
96. Garrett Hardin, *The Limits of Altruism* (Bloomington: Indiana University Press, 1977), p. 73.
97. Ophuls, *Ecology and the Politics of Scarcity*, p. 238.
98. Ibid., p. 234.
99. Ibid., p. 230.
100. Ibid., p. 236.
101. Ibid., p. 232.
102. Ibid., pp. 236–37.
103. Hoffert, "The Scarcity of Politics," p. 20.
104. In response to Hoffert, Ophuls writes: "I wished to raise the important *questions* provoked by ecological scarcity, not to provide systematic answers, much less formulate a new political vision or theory. Thus, for instance, my exploration of the potentially authoritarian *implications* of an ecological crisis should be read as a warning and an impetus to further thought and discussion, not as a prescription for authoritative *solutions*." William Ophuls, "Comment: On Hoffert and the Scarcity of Politics," *Environmental Ethics* 8 (Fall 1986): 287.

CHAPTER 3. LIBERAL REFORMULATIONS OF PROGRESSIVE CONSERVATIONISM

1. Roderick Nash, *The Rights of Nature* (Madison: University of Wisconsin Press, 1989), pp. 8–9.
2. Samuel P. Hays, *Beauty, Health, and Permanence* (New York: Cambridge University Press, 1987), p. 34. See too p. 13.
3. Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962), p. 39.
4. Ibid., p. 99.
5. Ibid., p. 297.
6. Stewart L. Udall, *The Quiet Crisis* (New York: Holt, Rinehart and Winston, 1963), p. 189.
7. Ibid., p. 131.
8. Ibid., p. 67.
9. Ibid., p. 178.
10. Ibid., p. 173.
11. Ibid., p. 125.
12. Ibid., p. 190.
13. William O. Douglas, *A Wilderness Bill of Rights* (Boston: Little, Brown, 1965), p. 9.
14. Ibid., pp. 26–27.
15. Ibid., p. 86.
16. Ibid., p. 87.
17. Ibid., p. 100.
18. Ibid., p. 25.
19. Ibid., p. 150.
20. Ibid., p. 151.
21. Ibid., p. 162.
22. Roderick Nash, *Wilderness and the American Mind* (New Haven, Conn.: Yale University Press, 1967), p. 188.
23. Aldo Leopold, *A Sand County Almanac* (New York: Oxford University Press, 1966), p. 222.
24. Ibid., p. 109.
25. Ibid., p. 71.
26. Ibid., p. x.
27. Ibid., p. 187.
28. Ibid., p. x.
29. Ibid., p. 158.
30. Ibid., p. 218.
31. Ibid., p. 224.
32. Ibid., pp. 219–20.
33. Ibid., p. 230.
34. Ibid., p. x.
35. Nash, *The Rights of Nature*, p. 122.
36. Ibid., p. 7.
37. Ibid., p. 160.
38. Ibid., pp. 11–12.

39. Ibid., p. 12.
40. Ibid., p. 200.
41. Roderick Nash, "Rounding Out the American Revolution: Ethical Extension and the New Environmentalism," in *Deep Ecology*, ed. Michael Tobias (San Marcos, Calif.: Avant Books, 1988), p. 179.
42. Nash, *The Rights of Nature*, p. 200.
43. Nash, "Rounding Out the American Revolution," p. 179. For Nash, unlike Douglas's "wilderness bill of rights," the rights are held directly by natural objects rather than by the individual humans who love and respect them.
44. Nash, *The Rights of Nature*, p. xi.
45. Roderick Nash, "Do Rocks Have Rights?" in *Small Comforts for Hard Times*, ed. Michael Mooney and Florian Stuber (New York: Columbia University Press, 1977), p. 129.
46. Roderick Nash, "Environmental Ethics," in *Environmental Spectrum: Social and Economic Views on the Quality of Life*, ed. Ronald O. Clarke and Peter C. List (New York: D. Van Nostrand Co., 1974), pp. 142–43.
47. Ibid., p. 150.
48. Nash, "Do Rocks Have Rights?" p. 126. Also see Nash's other article by the same title in *Center Magazine*, no. 10, November–December 1977, pp. 7–8.
49. Nash, "Do Rocks Have Rights?" pp. 127–28.
50. Nash, "Environmental Ethics," p. 147.
51. Ibid.; see too "Do Rocks Have Rights?" p. 127.
52. Nash, "Rounding Out the American Revolution," p. 176.
53. Thomas Hobbes, *Leviathan*, ed. Michael Oakeshott (New York: Collier, 1962), p. 109.
54. The philosopher who has most systematically explored the issue of animal rights is Tom Regan, and his analysis avoids many of the problems found in Nash's writings. Regan's work, however, has only a tangential relationship with a more general environmental ethic, since, on Regan's own terms, "rights" are restricted to mammals (the only natural objects that clearly, for Regan, share morally important qualities with humans). Although Regan suggests that his theory might have important implications for environmentalism, he does not spell out this broader application of his rights-based argument—nor is it obvious that it is even possible, given the theory's overall structure. See Tom Regan, *The Case for Animal Rights* (Berkeley and Los Angeles: University of California Press, 1983), passim and pp. 361–63.
55. Christopher D. Stone, *Should Trees Have Standing?* (Los Altos, Calif.: William Kaufmann, 1974), p. 17.
56. Ibid., p. 16.
57. Ibid., p. 24.
58. Ibid., p. 33.
59. Ibid., p. 43.
60. Ibid., p. 48.
61. Ibid., p. 53.
62. See ibid., p. 73.
63. Christopher D. Stone, *Earth and Other Ethics* (New York: Harper and Row, 1987), p. 112.

64. Ibid., p. 48.
65. See Christopher D. Stone, "Comment: Legal Rights and Moral Pluralism," *Environmental Ethics* 9 (Fall 1987): 281–82.
66. Stone, *Earth and Other Ethics*, p. 69.
67. Ibid., p. 43.
68. Ibid., p. 108.
69. Ibid.
70. Christopher D. Stone, "Moral Pluralism and the Course of Environmental Ethics," *Environmental Ethics* 10 (Summer 1988): 140.
71. Stone, *Earth and Other Ethics*, p. 118.
72. Ibid., p. 148.
73. Ibid., p. 243.
74. Ibid., p. 249.
75. Ibid., p. 252.
76. Ibid., p. 251.
77. J. Baird Callicott, "The Case against Moral Pluralism," *Environmental Ethics* 12 (Summer 1990): 112.
78. Stone, *Earth and Other Ethics*, p. 256.
79. Ibid., p. 113.
80. Ibid., p. 246.
81. Laurence H. Tribe, "Ways Not to Think about Plastic Trees: New Foundations for Environmental Law," *Yale Law Journal* 83 (June 1974): 1343.
82. Ibid.
83. Mark Sagoff, *The Economy of the Earth* (New York: Cambridge University Press, 1988), p. 150.
84. Ibid., pp. 148–49.
85. Ibid., p. 154.
86. This discussion is found in ibid., pp. 50–51.
87. Ibid., p. 37.
88. Ibid., p. 121.
89. Ibid., p. 96.
90. Ibid., p. 117.
91. Ibid., p. 17. Discussing his students' response to the proposed development of Mineral King Valley, Sagoff writes in the same vein: "The students believed that the Disney plan was loathsome and despicable, that the Forest Service had violated a public trust by approving it, and that the values for which we stand as a nation compel us to preserve the little wilderness we have for its own sake and as a heritage for future generations" (ibid., p. 51).
92. See ibid., pp. 139, 144.
93. Ibid., p. 156.
94. Ibid.
95. Mark Sagoff, "On Preserving the Natural Environment," *Yale Law Journal* 84 (December 1974): 220–21.
96. Christopher Stone, in a review of *The Economy of the Earth*, restates his arguments from *Earth and Other Ethics* about the appropriateness of cost-benefit analysis for environmental ethics and expresses doubts about Sagoff's criticism of such economic methods. See Christopher D. Stone, review of *The*

Economy of the Earth, by Mark Sagoff, *Environmental Ethics* 10 (Winter 1988): 366–67.

97. Sagoff, *The Economy of the Earth*, p. 65.
98. Ibid., pp. 195–96.
99. Ibid., p. 76.
100. Ibid., p. 220.
101. Ibid., p. 216.
102. Ibid., p. 215.
103. See ibid., p. 201.
104. Ibid., p. 70.
105. Stone, review of *The Economy of the Earth*, pp. 367–68.
106. Stone, *Earth and Other Ethics*, p. 253.
107. Sagoff, *The Economy of the Earth*, pp. 213–15.

CHAPTER 4. THE SPIRITUALIZATION OF NATURE

1. The vote in the House was 183 in favor, 43 opposed; the Senate vote was 43 to 25. Roderick Nash, *Wilderness and the American Mind* (New Haven, Conn.: Yale University Press, 1967), pp. 175, 179.
2. Ibid., p. 162.
3. Ibid., p. 163.
4. Ibid., p. 171.
5. Michael P. Cohen, *The Pathless Way* (Madison: University of Wisconsin Press, 1984), p. 336.
6. Nash, *Wilderness and the American Mind*, p. 173.
7. See, for example, Gifford Pinchot, *The Power Monopoly* (Milford, Pa., 1928).
8. Nash, *Wilderness and the American Mind*, p. 178.
9. Ibid., p. 164.
10. John Muir, *The Yosemite* (New York: Century Co., 1912), p. 256.
11. Ibid., pp. 261–62.
12. Ibid., p. 257.
13. Ibid., p. 260.
14. Ibid.
15. Gifford Pinchot, *Breaking New Ground* (New York: Harcourt, Brace and Co., 1947), p. 103.
16. Nash, *Wilderness and the American Mind*, p. 135.
17. Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Cambridge, Mass.: Harvard University Press, 1959), p. 197.
18. John Muir, *John Muir: To Yosemite and Beyond*, ed. Robert Enberg and Donald Wesling (Madison: University of Wisconsin Press, 1980), p. 26.
19. Ibid., p. 31.
20. Stephen Fox, *John Muir and His Legacy* (Boston: Little, Brown, 1981), p. 41.
21. Ibid., p. 42.

22. Ibid.
23. Muir, *To Yosemite and Beyond*, p. 35.
24. Fox, *John Muir and His Legacy*, p. 66.
25. Ibid., p. 58.
26. Muir, *To Yosemite and Beyond*, p. 88.
27. Quoted in Fox, *John Muir and His Legacy*, p. 13.
28. John Muir, *A Thousand Mile Walk to the Gulf* (Boston: Houghton Mifflin, 1981), p. 186.
29. John Muir, *The Wilderness World of John Muir*, ed. Edwin Way Teale (Boston: Houghton Mifflin, 1954), p. 319.
30. Muir, *To Yosemite and Beyond*, p. 118.
31. Muir, *Wilderness World*, p. 243.
32. Muir, *To Yosemite and Beyond*, p. 118.
33. Muir, *A Thousand Mile Walk*, p. 122.
34. Muir, *To Yosemite and Beyond*, p. 112.
35. Ibid., p. 142.
36. John Muir, *Our National Parks* (Boston: Houghton Mifflin, 1901), p. 4.
37. John Muir, *John of the Mountains: The Unpublished Journals of John Muir*, ed. Linnie Marsh Wolfe (Madison: University of Wisconsin Press, 1979), p. 424.
38. Muir, *To Yosemite and Beyond*, p. 131.
39. Muir, *Our National Parks*, p. 38.
40. Muir, *To Yosemite and Beyond*, p. 121.
41. Muir, *Wilderness World*, p. 312.
42. Muir, *Our National Parks*, p. 240.
43. John Muir, *John Muir Summering in the Sierra*, ed. Robert Enberg (Madison: University of Wisconsin Press, 1984), p. 76.
44. Muir, *To Yosemite and Beyond*, p. 118.
45. Ibid., p. 52.
46. As Max Oelschlaeger writes, "Muir's nature vocabulary appears to be more theological than philosophical." *The Idea of Wilderness: From Prehistory to the Age of Ecology* (New Haven, Conn.: Yale University Press, 1991), p. 174.
47. Muir, *A Thousand Mile Walk*, p. 142.
48. Ibid., p. 212.
49. Muir, *Our National Parks*, p. 93.
50. Muir, *To Yosemite and Beyond*, pp. 10–11.
51. Catherine Albanese, *Nature Religion in America* (Chicago: University of Chicago Press, 1990), p. 96.
52. Muir, *A Thousand Mile Walk*, p. 58.
53. Ibid., p. 71.
54. Ibid., p. 70.
55. Fox, *John Muir and His Legacy*, p. 7.
56. Muir, *A Thousand Mile Walk*, p. 103.
57. Muir, *Our National Parks*, p. 16.
58. Muir, *Wilderness World*, p. 313.
59. Muir, *Summering*, p. 62.
60. Ibid., p. 113.

61. Fox, *John Muir and His Legacy*, p. 14.
62. Muir, *Summering*, p. 93.
63. Muir, *Our National Parks*, preface.
64. Ibid., p. 1.
65. Muir, *Summering*, p. 25.
66. Muir, *Our National Parks*, p. 361.
67. Muir, *Wilderness World*, p. 315.
68. Albanese, *Nature Religion in America*, p. 93.
69. Nash, *Wilderness and the American Mind*, p. 127.
70. Fox, *John Muir and His Legacy*, p. 83.
71. Muir, *Our National Parks*, p. 131.
72. Ibid., p. 132.
73. Ibid., p. 134.
74. Ibid., p. 136.
75. Ibid., p. 135.
76. Ibid., p. 336.
77. Bill McKibben, *The End of Nature* (New York: Random House, 1989), p. 64.
78. Ibid., p. 72.
79. Ibid., p. 48.
80. Ibid., p. 217.
81. Ibid., p. 174.
82. Ibid., p. 217.
83. Peter Reed, "Man Apart: An Alternative to the Self-Realization Approach," *Environmental Ethics* 11 (Spring 1989): 59.
84. Lynn White, "The Historical Roots of Our Ecologic Crisis," in *Machina ex Deo* (Cambridge, Mass.: MIT Press, 1986), p. 86.
85. Ibid., p. 93.
86. Ibid., p. 94.
87. David Ehrenfeld, *The Arrogance Of Humanism* (New York: Oxford University Press, 1978), p. 5.
88. Ibid., p. 202.
89. Ibid., p. 269.
90. Bill Devall and George Sessions, *Deep Ecology* (Salt Lake City: Gibbs M. Smith, 1985), pp. 7–8.
91. Bill Devall, *Simple in Means, Rich in Ends* (Salt Lake City: Peregrine Smith Books, 1988), p. 5. See too Devall and Sessions, *Deep Ecology*, p. 52.
92. Devall, *Simple in Means*, p. 2.
93. Devall and Sessions, *Deep Ecology*, p. 53; Devall, *Simple in Means*, p. 57.
94. Devall and Sessions, *Deep Ecology*, p. 151.
95. Devall, *Simple in Means*, p. 27.
96. Ibid., p. 49.
97. Devall and Sessions, *Deep Ecology*, p. 127.
98. See George Sessions, "Ecological Consciousness and Paradigm Change," in *Deep Ecology*, ed. Michael Tobias (San Marcos, Calif.: Avant Books, 1988), p. 29.
99. Devall, *Simple in Means*, p. 91.

100. Ibid., p. 188.
101. Devall and Sessions, *Deep Ecology*, p. 66.
102. See Arne Naess, "Identification as a Source of Deep Ecological Attitudes," in *Deep Ecology*, ed. Michael Tobias (San Marcos, Calif.: Avant Books, 1988), p. 261. In one of his books, Naess writes: "The ecosocial outlook is developed through an identification so deep that one's *own self* is no longer adequately delimited by the personal ego or the organism. One experiences oneself to be a genuine part of all life." *Ecology, Community, and Lifestyle*, trans. and ed. David Rothenberg (New York: Cambridge University Press, 1989), p. 174.
103. Devall, *Simple in Means*, p. 2.
104. Devall and Sessions, *Deep Ecology*, p. 67.
105. Ibid., p. 68.
106. Devall, *Simple in Means*, p. 19.
107. Ibid., p. 42. As Naess puts the point: "So the norm 'self-realization!' is a condensed expression of the unity of certain social, psychological, and ontological hypotheses: the most comprehensive and deep maturity of a human personality guarantees *beautiful action*. This is based on traits of human nature. We need not repress ourselves; we need to develop ourself. . . . Increasing maturity activates more of the personality in relation to more of the milieu. It results in acting more consistently from oneself *as a whole*. This is experience as most meaningful and desirable, even if sometimes rather painful." *Ecology, Community, and Lifestyle*, p. 86.
108. Devall and Sessions, *Deep Ecology*, p. 67.
109. Devall, *Simple in Means*, p. 52.
110. Ibid., p. 7.
111. Ibid., p. 199.
112. Devall and Sessions, *Deep Ecology*, p. 61.
113. Ibid., p. 69.
114. Ibid., p. 28.
115. Ibid., p. 162.
116. Devall, *Simple in Means*, p. 74.
117. Ibid., p. 11.
118. Ibid., p. 57.
119. Devall and Sessions, *Deep Ecology*, p. 145.
120. Naess, "Identification as a Source of Deep Ecological Attitudes," p. 258. See also his *Ecology, Community, and Lifestyle*, p. 37.
121. Devall and Sessions, *Deep Ecology*, p. 112.
122. Ibid., p. 152.
123. Devall, *Simple in Means*, p. 12.
124. Ibid., p. 160.
125. Ibid., p. 65.
126. Ibid., p. 39.
127. Devall and Sessions, *Deep Ecology*, p. 11.
128. Ibid., p. 19.
129. Ibid., p. 157.
130. Devall, *Simple in Means*, p. 51.

131. Ibid., p. 128.

132. For a development of this line of criticism, see Lewis P. Hinchman and Sandra K. Hinchman, "'Deep Ecology' and the Revival of Natural Right," *Western Political Quarterly* 42 (September 1989): 201–28.

133. Devall, *Simple in Means*, p. 189.

134. Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," *Environmental Ethics* 11 (Spring 1989): 74.

135. Ibid.

136. Ibid., p. 75.

137. Ibid., p. 76.

138. David M. Johns, "The Relevance of Deep Ecology to the Third World: Some Preliminary Comments," *Environmental Ethics* 12 (Fall 1990): 236.

139. Ibid., p. 243.

140. Ibid., p. 251.

141. Ibid., p. 250.

142. Ibid., p. 235.

143. Ibid.

144. Ibid., p. 242.

145. Ibid., p. 235.

146. Ibid., p. 237.

147. Ibid., p. 238.

148. See Tim Luke, "The Dreams of Deep Ecology," *Telos*, no. 76, Summer 1988, pp. 65–92. Also see Helge Kjekshus's impressive study, *Ecology Control and Economic Development in East African History* (Berkeley and Los Angeles: University of California Press, 1977).

149. Luke asks, "Can the same rules . . . be followed today by ecologizing post-industrial peoples reinhabiting nature?" "The Dreams of Deep Ecology," p. 76.

150. See Jim Cheney, "The Neo-Stoicism of Radical Environmentalism," *Environmental Ethics* 11 (Winter 1989): 293–325. Cheney writes (p. 307): "There is certainly no negotiating *this* kind of knowledge; it has left the realm of discourse altogether."

151. Luke, "The Dreams of Deep Ecology," p. 81: "Given deep ecology's vision of nature, biocentrism might simply be a spiritually refreshing or psychically rewarding form of anthropocentrism." See too Reed, "Man Apart: An Alternative to the Self-Realization Approach," p. 56.

152. Luke, "The Dreams of Deep Ecology," p. 73.

CHAPTER 5. BIOCENTRISM

1. Kirkpatrick Sale, *Dwellers in the Land* (San Francisco: Sierra Club, 1985), p. 3.

2. David Oats, *Earth Rising* (Corvallis: Oregon State University Press, 1989), p. 51.

3. Quoted in Sale, *Dwellers in the Land*, p. 11.

4. J. E. Lovelock, *Gaia: A New Look at Life on Earth* (New York: Oxford University Press, 1987), p. 9.
5. Ibid., p. xxi.
6. Ibid., p. 40.
7. Sale, *Dwellers in the Land*, p. 192. Note that Lovelock and Sale differ on the spelling of Gaia (Gaea for Sale).
8. Lovelock, *Gaia*, pp. 107–8.
9. Ibid., p. 110.
10. Ibid., p. 145.
11. Ibid., p. 121.
12. For a brief overview of the debates concerning Lovelock's hypothesis, see *New York Times*, 29 August 1989, C1, C4.
13. Eugene C. Hargrove, *Foundations of Environmental Ethics* (Englewood Cliffs, N.J.: Prentice Hall, 1989), p. 192.
14. Ibid., p. 78.
15. Ibid., p. 127.
16. Ibid., p. 177.
17. Ibid., p. 179.
18. Ibid., p. 165.
19. Holmes Rolston III, *Environmental Ethics* (Philadelphia: Temple University Press, 1988), p. 192.
20. Ibid., p. 245. The criticism of Socrates that is implied by this rather cavalier comment is a good illustration of how much contemporary environmental philosophers have failed to draw on, or even seriously consider, classical philosophies of nature—philosophies that incorporate the human and political community within a conception of the natural. Socrates and other ancient philosophers are simply assumed to have little or nothing of importance to say about the natural order. As another example, consider this comment by Max Oelschlaeger: "In distinction from the Pre-Socratics, Socrates was a philosopher not of nature but of humankind, and in this way he gave all later Western thought a homocentric cast." *The Idea of Wilderness: From Prehistory to the Age of Ecology* (New Haven, Conn.: Yale University Press, 1991), p. 56.
21. J. Baird Callicott, *In Defense of the Land Ethic* (Albany: State University of New York Press, 1989), p. 223.
22. Rolston, *Environmental Ethics*, p. xii.
23. Callicott, *In Defense of the Land Ethic*, pp. 3–4.
24. See Callicott's "Animal Liberation: A Triangular Affair," reprinted in *In Defense of the Land Ethic*, pp. 15–38, and Rolston's discussion of utilitarianism in environmental ethics in *Environmental Ethics*, p. 60. There he writes: "There is nothing immoral about participating in the logic and biology of one's ecosystem. . . . In this sense those who sympathize with the pain of animals and wish to eliminate these pains are not biologically sensitive but insensitive."
25. Callicott, *In Defense of the Land Ethic*, p. 136.
26. Rolston, *Environmental Ethics*, p. 2.
27. Callicott, *In Defense of the Land Ethic*, p. 22.
28. Rolston, *Environmental Ethics*, p. 334.
29. Ibid., p. xi.

30. Callicott, *In Defense of the Land Ethic*, pp. 78–79.
31. Ibid., p. 82.
32. Ibid., p. 83.
33. Rolston, *Environmental Ethics*, p. 59.
34. Ibid., p. 61.
35. Ibid., p. 109.
36. Ibid., p. 117.
37. Ibid., p. 137. It is interesting to note that Rolston does not explain why this environmental ethic should be limited to living things. To be consistent, it would seem that his emphasis on the life process should lead him to extend his ethical concern to all of the nonliving processes, substances, and laws of nature that support life—perhaps to nature in its entirety.
38. Ibid., p. 167.
39. Ibid., p. 232.
40. Ibid., p. 215.
41. Peter Wenz, review of *Environmental Ethics*, by Holmes Rolston III, *Ethics* 100 (October 1989): 196.
42. Rolston, *Environmental Ethics*, p. 84.
43. Ibid.
44. Callicott, *In Defense of the Land Ethic*, p. 164.
45. Ibid., p. 121.
46. Ibid., p. 123; see pp. 121–23 for the complete passage.
47. Ibid., pp. 124–25.
48. Ibid., p. 210.
49. Ibid., p. 99.
50. See Rolston, *Environmental Ethics*, pp. 113–15.
51. Callicott, *In Defense of the Land Ethic*, p. 112.
52. Ibid., p. 114.
53. Rolston, *Environmental Ethics*, p. 188.
54. Ibid., p. 208.
55. Callicott, *In Defense of the Land Ethic*, pp. 162–63.
56. Rolston, *Environmental Ethics*, p. 130.
57. Ibid., p. 335.
58. Ibid., p. 336.
59. Callicott, *In Defense of the Land Ethic*, p. 54.
60. Paul Taylor, *Respect for Nature* (Princeton, N.J.: Princeton University Press, 1986), p. 9.
61. Ibid., p. 47.
62. Ibid., p. 73.
63. Ibid., p. 61.
64. Ibid., p. 62.
65. Ibid., p. 68.
66. Ibid., p. 67.
67. Ibid., p. 69.
68. Ibid., p. 66.
69. Ibid., p. 122.
70. Ibid., p. 71.

71. Ibid., p. 79.
72. Ibid., p. 80.
73. Ibid., p. 167.
74. Ibid., pp. 99–100.
75. For example, see Taylor's defense of the first of these beliefs (humans as equal members of the "Community of Life"), ibid., pp. 101–15. Here he discusses five empirical observations about the similarity between humans and other forms of life as evidence to support his view. Discussions of the next two beliefs take a similar tack.
76. Ibid., p. 155.
77. Ibid., p. 153.
78. Ibid., p. 145.
79. Ibid., p. 101.
80. Ibid., p. 114.
81. Ibid. Taylor's claims here ignore the impact that such an event would have on the significant number of species that have become symbiotic with and dependent on human beings. It is one thing to argue that human extinction would benefit the "Earth's Community of Life as a whole"; it is quite another to suggest that all other living things would benefit from it.
82. Ibid., p. 115.
83. Ibid., p. 118.
84. Ibid., p. 23.
85. Ibid., p. 186.
86. Ibid., p. 188.
87. Peter Wenz, *Environmental Justice* (Albany: State University of New York Press, 1988), p. 287.
88. Taylor, *Respect for Nature*, p. 260.
89. Ibid., p. 281.
90. Wenz, *Environmental Justice*, pp. 286–87.
91. Taylor, *Respect for Nature*, p. 312.
92. Callicott, *In Defense of the Land Ethic*, p. 27.
93. See, for example, ibid., p. 6.
94. Ibid., p. 93.
95. Ibid., p. 94.
96. Rolston, *Environmental Ethics*, p. 42.
97. When Rolston turns to discuss specific public and business policies concerning the environment, it becomes clear that the type of environmental ethics he has defended does not lead to particularly unique or radical proposals. As Peter Wenz observes in his review of Rolston (p. 196): "Chapters 7 and 8 on environmental public policy and business ethics are well organized, contain many good points, and can be appreciated by the general reader, but they are not organically related to the earlier chapters. They follow from almost any, even an anthropocentric, concern for the environment."
98. Taylor, *Respect for Nature*, p. 12.
99. Ibid.
100. Gene Spitler, "Justifying a Respect for Nature," *Environmental Ethics* 4 (Fall 1982): 260.

101. Paul Taylor, "In Defense of Biocentrism," *Environmental Ethics* 5 (Fall 1983): 242.
102. Taylor, *Respect for Nature*, p. 293.
103. Ibid., p. 308.
104. Callicott, *In Defense of the Land Ethic*, p. 126.

CHAPTER 6. RESTORING POLITICAL VISION

1. Leo Marx, "American Institutions and Ecological Ideals," *Science*, 27 November 1970, p. 949.
2. See chapter 3, note 97.
3. As Roderick Nash notes, "By definition man is alien to wilderness." *Wilderness and the American Mind* (New Haven, Conn.: Yale University Press, 1967), p. 236.
4. Hans Magnus Enzenberger, "A Critique of Political Ecology," *New Left Review*, no. 84, March-April 1974, p. 23.
5. William Tucker, *Progress and Privilege* (Garden City, N.Y.: Anchor Press, 1982), p. 30.
6. Luke Popovitch, "Environmentalism and the New Conservatives," *American Forests* 89 (March 1983): 50.
7. "According to both the League of Conservation Voters and the National Wildlife Federation, the Congressional Black Caucus has had a better environmental voting profile than any other group in Congress." Paul Ruffins, "Interracial Coalitions," *Atlantic*, June 1990, p. 32.
8. See Lester Milbrath, *Environmentalists* (Albany: State University of New York Press, 1984), p. 76. Also see Richard Andrews, "Class Politics or Democratic Reform: Environmentalism and American Political Institutions," *Natural Resources Journal* 20 (April 1980): 221–41.
9. Barry Commoner, *The Closing Circle* (New York: Alfred A. Knopf, 1971), p. 177.
10. Barry Commoner, "Labor's Stake in the Environment/The Environment's Stake in Labor" (Paper presented at a conference on Jobs and the Environment—Whose Jobs? Whose Environment? sponsored by the Institute of Industrial Relations, University of California, Berkeley, 28 November 1972, San Francisco), p. 15.
11. Barry Commoner, *Making Peace with the Planet* (New York: Pantheon, 1990), p. 196.
12. Barry Commoner, *Science and Survival* (New York: Viking, 1966), p. 126.
13. Charles T. Rubin, "Environmental Policy and Environmental Thought: Ruckelshaus and Commoner" *Environmental Ethics* 11 (Spring 1989): 31.
14. Commoner, *Science and Survival*, p. 63.
15. Ibid., p. 123.
16. Ibid., p. 120.
17. Ibid., p. 128.

18. Commoner, *Closing Circle*, p. 268.
19. Ibid., p. 287.
20. Ibid., p. 178.
21. Barry Commoner, *The Poverty of Power* (New York: Alfred A. Knopf, 1976), p. 232.
22. Commoner, *Closing Circle*, p. 249.
23. Commoner, *Making Peace*, p. 59.
24. Barry Commoner, "A Reporter at Large: The Environment," *New Yorker*, 15 June 1987, p. 66.
25. Commoner, *Closing Circle*, p. 207.
26. Commoner, "Reporter," p. 68.
27. Commoner, *Science and Society*, p. 127.
28. Commoner, *Making Peace*, p. 103.
29. Commoner, *Closing Circle*, p. 41.
30. Eugene C. Hargrove, *Foundations of Environmental Ethics* (Englewood Cliffs, N.J.: Prentice Hall, 1989), p. 154.
31. Ibid., p. 155.
32. Rubin, "Environmental Policy and Environmental Thought," p. 41.
33. Ibid., p. 50.
34. Ibid., p. 49.
35. Fritjof Capra and Charlene Spretnak, *Green Politics* (New York: E. P. Dutton, 1984), pp. 30, 35, 37, 43.
36. Ibid., pp. 65–66.
37. Murray Bookchin, "Yes!—Whither Earth First?" *Green Perspectives*, no. 10, September 1988, p. 6.
38. Murray Bookchin, *Post-Scarcity Anarchism* (Berkeley, Calif.: Ramparts Press, 1971), p. 63.
39. Murray Bookchin, *The Ecology of Freedom* (Palo Alto, Calif.: Cheshire Books, 1982), p. 274.
40. Ibid., p. 315.
41. Murray Bookchin, *Remaking Society* (Boston: South End Press, 1990), p. 203.
42. Bookchin, *Ecology of Freedom*, p. 315.
43. Ibid., p. 278.
44. Robyn Eckersley, "Divining Evolution: The Ecological Ethics of Murray Bookchin," *Environmental Ethics* 11 (Summer 1989): 107.
45. Bookchin, "Yes!" p. 6.
46. Murray Bookchin, "Which Way for the U.S. Greens?" *New Politics* (Winter 1989): 81.
47. Bookchin, "Yes!" p. 1.
48. As Bookchin points out, racist, misanthropic, and downright inhumane views are not unknown in certain radical environmentalist circles. Consider the following: Edward Abbey once referred to Hispanic immigrants as "hungry, ignorant, unskilled, and culturally-morally-generically impoverished people"; a writer for the Earth First! newspaper portrayed the AIDs epidemic as a "necessary solution" for human overpopulation; Dave Foreman once argued that "the worst thing we could do in Ethiopia is to give aid—the

best thing would be to just let nature seek its own balance, to let the people there just starve." See Bookchin's discussion of these comments in Murray Bookchin and Dave Foreman, *Defending the Earth* (Boston: South End Press, 1991), pp. 123–24.

49. Eckersley, "Divining Evolution," p. 112.

50. In *Remaking Society*, Bookchin writes (p. 153): "The wilderness enthusiast who retreats into remote mountain areas and shuns human company has provided a bouquet of innumerable misanthropes over the ages." Although Bookchin, in his recent dialogue with Dave Foreman, has protested that he loves and has always valued wilderness as much as other radical environmentalists, his sentiments appear to be independent of the values and commitments of social ecology. See Bookchin and Foreman, *Defending the Earth*, pp. 28–29.

51. North California Greens, "Time for a Reality Check," *Green Letter* 4, no. 4 (Fall 1988): 35.

52. Brian Tokar, "Social Ecology, Deep Ecology, and the Future of Green Political Thought," *Ecologist* 18, no. 4/5 (1988): 40.

53. Kirkpatrick Sale, "Deep Ecology and Its Critics," *Nation*, 14 May 1988, p. 675.

54. Murray Bookchin, letter to *Nation*, 10 October 1988, p. 294. See Sale's response, pp. 294, 314.

55. Contrast, for example, the opening exchanges between Bookchin and Foreman in *Defending the Earth* with their final statements at the end of the book. In the early part, it is clear that they both desire to find common ground and emphasize the similarity of their environmental commitments. By the conclusion, however, the old rifts begin to surface again. Foreman ends by explaining that he has become uncomfortable with the number of "socially oriented" members of Earth First! and has thus left the movement to found a new organization (p. 119). Bookchin, in turn, repeats his claim that the logical conclusion of deep ecology is a dangerous misanthropy (p. 125).

56. Lynn White, *Machina et Deo* (Cambridge, Mass.: MIT Press, 1986), p. 93.

57. Ibid., p. 79.

Works Cited

Albanese, Catherine. *Nature Religion in America*. Chicago: University of Chicago Press, 1990.

Andrews, Richard. "Class Politics or Democratic Reform: Environmentalism and American Political Institutions." *Natural Resources Journal* 20 (April 1980): 221–41.

Bookchin, Murray. *The Ecology of Freedom*. Palo Alto, Calif.: Cheshire Books, 1982.

_____. *Post-Scarcity Anarchism*. Berkeley, Calif.: Ramparts Press, 1971.

_____. *Remaking Society*. Boston: South End Press, 1990.

_____. "Which Way for the U.S. Greens?" *New Politics* (Winter 1989): 71–83.

_____. "Yes!—Whither Earth First?" *Green Perspectives*, no. 10, September 1988, pp. 1–7.

Bookchin, Murray, and Foreman, Dave. *Defending the Earth*. Boston: South End Press, 1991.

Callicott, J. Baird. "The Case against Moral Pluralism." *Environmental Ethics* 12 (Summer 1990): 99–124.

_____. *In Defense of the Land Ethic*. Albany: State University of New York Press, 1989.

Capra, Fritjof, and Spretnak, Charlene. *Green Politics*. New York: E. P. Dutton, 1984.

Carson, Rachel. *Silent Spring*. Boston: Houghton Mifflin, 1962.

Cheney, Jim. "The Neo-Stoicism of Radical Environmentalism." *Environmental Ethics* 11 (Winter 1989): 293–325.

Cohen, Michael P. *The Pathless Way*. Madison: University of Wisconsin Press, 1984.

Commoner, Barry. *The Closing Circle*. New York: Alfred A. Knopf, 1971.

_____. "Labor's Stake in the Environment/The Environment's Stake in Labor." Paper presented at a conference on Jobs and the Environment—Whose Jobs? Whose Environment? sponsored by the Institute Of Industrial Relations, University of California, Berkeley, 28 November 1972, San Francisco.

_____. *Making Peace with the Planet*. New York: Pantheon, 1990.

_____. *The Poverty of Power*. New York: Alfred A. Knopf, 1976.

_____. "A Reporter at Large: The Environment." *New Yorker*, 15 June 1987, pp. 46–71.

_____. *Science and Survival*. New York: Viking, 1966.
Devall, Bill. *Simple in Means, Rich in Ends*. Salt Lake City: Peregrine Smith Books, 1988.
Devall, Bill, and Sessions, George. *Deep Ecology*. Salt Lake City: Gibbs M. Smith, 1985.
Douglas, William O. *A Wilderness Bill of Rights*. Boston: Little, Brown, 1965.
Eckersley, Robyn. "Divining Evolution: The Ecological Ethics of Murray Bookchin." *Environmental Ethics* 11 (Summer 1989): 99–116.
Eckstein, George. "Heading for Apocalypse?" *Dissent* 22 (Winter 1975): 34–39.
Ehrenfeld, David. *The Arrogance of Humanism*. New York: Oxford University Press, 1978.
Ehrlich, Paul. *The Population Bomb*. San Francisco: Sierra Club, 1969.
Enzenberger, Hans Magnus. "A Critique of Political Ecology." *New Left Review*, no. 84, March–April 1974, pp. 3–31.
Fox, Stephen. *John Muir and His Legacy*. Boston: Little, Brown, 1981.
Guha, Ramachandra. "Radical American Environmentalism and Wilderness Preservation: A Third World Critique." *Environmental Ethics* 11 (Spring 1989): 71–83.
Hardin, Garrett. *Exploring New Ethics for Survival*. New York: Viking, 1972.
_____. *Filters against Folly*. New York: Viking, 1985.
_____. *The Limits of Altruism*. Bloomington: Indiana University Press, 1977.
_____. "The Tragedy of the Commons." In *Toward a Steady State Economy*, edited by Herman E. Daly, 133–48. San Francisco: W. H. Freeman, 1973.
Hargrove, Eugene C. *Foundations of Environmental Ethics*. Englewood Cliffs, N.J.: Prentice Hall, 1989.
Hays, Samuel P. *Beauty, Health, and Permanence*. New York: Cambridge University Press, 1987.
_____. *Conservation and the Gospel of Efficiency*. Cambridge, Mass.: Harvard University Press, 1959.
Heilbroner, Robert. *An Inquiry into the Human Prospect*. New York: Norton, 1980.
Hinchman, Lewis P., and Hinchman, Sandra K. "'Deep Ecology' and the Revival of Natural Right." *Western Political Quarterly* 42 (September 1989): 201–28.
Hobbes, Thomas. *Leviathan*. Edited by Michael Oakeshott. New York: Collier, 1962.
Hoffert, Robert W. "The Scarcity of Politics: Ophuls and Western Political Thought." *Environmental Ethics* 8 (Spring 1986): 5–32.
Holsworth, Robert D. "Recycling Hobbes: The Limits to Political Ecology." *Massachusetts Review* 20 (Spring 1979): 9–40.
Jefferson, Thomas. *The Life and Selected Writings of Thomas Jefferson*. Edited by Adrienne Koch and William Peden. New York: Modern Library, 1944.
Johns, David M. "The Relevance of Deep Ecology to the Third World: Some Preliminary Comments." *Environmental Ethics* 12 (Fall 1990): 233–52.
Kjekshus, Helge. *Ecology Control and Economic Development in East African History*. Berkeley and Los Angeles: University of California Press, 1977.

Landy, Marc; Roberts, Marc; and Thomas, Stephen. *The Environmental Protection Agency*. New York: Oxford University Press, 1990.

Leeson, Susan M. "Philosophical Implications of the Ecological Crisis: The Authoritarian Challenge to Liberalism." *Polity* 11 (Spring 1979): 303–18.

Leopold, Aldo. *A Sand County Almanac*. New York: Oxford University Press, 1966.

Lovelock, J. E. *Gaia: A New Look at Life on Earth*. New York: Oxford University Press, 1987.

Luke, Tim. "The Dreams of Deep Ecology." *Telos*, no. 76, Summer 1988, pp. 65–92.

McConnell, Grant. "The Conservation Movement—Past and Present." *Western Political Quarterly* 7 (September 1954): 463–73.

McKibben, Bill. *The End of Nature*. New York: Random House, 1989.

Macpherson, C. B. *The Life and Times of Liberal Democracy*. New York: Oxford University Press, 1977.

McWilliams, Wilson Carey. *The Idea of Fraternity in America*. Berkeley and Los Angeles: University of California Press, 1974.

Marsh, George Perkins. *Man and Nature*. Cambridge, Mass.: Harvard University Press, 1965.

Marx, Leo. "American Institutions and Ecological Ideals." *Science*, 27 November 1970, pp. 945–52.

_____. *The Machine in the Garden*. New York: Oxford University Press, 1964.

Milbrath, Lester. *Environmentalists*. Albany: State University of New York Press, 1984.

Moon, J. Donald. "Can Liberal Democracy Cope with Scarcity?" *International Political Science Review* 4, no. 3 (1983): 385–400.

Muir, John. *John Muir Summering in the Sierra*. Edited by Robert Enberg. Madison: University of Wisconsin Press, 1984.

_____. *John Muir: To Yosemite and Beyond*. Edited by Robert Enberg and Donald Wesling. Madison: University of Wisconsin Press, 1980.

_____. *John of the Mountains: The Unpublished Journals of John Muir*. Edited by Linnie Marsh Wolfe. Madison: University of Wisconsin Press, 1979.

_____. *Our National Parks*. Boston: Houghton Mifflin, 1901.

_____. *A Thousand Mile Walk to the Gulf*. Boston: Houghton Mifflin, 1981.

_____. *The Wilderness World of John Muir*. Edited by Edwin Way Teale. Boston: Houghton Mifflin, 1954.

_____. *The Yosemite*. New York: Century Co., 1912.

Naess, Arne. *Ecology, Community, and Lifestyle*. Translated and edited by David Rothenberg. New York: Cambridge University Press, 1989.

_____. "Identification as a Source of Deep Ecological Attitudes." In *Deep Ecology*, edited by Michael Tobias, 256–70. San Marcos, Calif.: Avant Books, 1988.

Nash, Roderick. "Do Rocks Have Rights?" *Center Magazine*, no. 10, November–December 1977, pp. 2–12.

_____. "Do Rocks Have Rights?" In *Small Comforts for Hard Times*, edited by Michael Mooney and Florian Stuber, 120–34. New York: Columbia University Press, 1977.

_____. "Environmental Ethics." In *Environmental Spectrum: Social and Economic Views on the Quality of Life*, edited by Ronald O. Clarke and Peter C. List, 142–50. New York: D. Van Nostrand Co., 1974.

_____. *The Rights of Nature*. Madison: University of Wisconsin Press, 1989.

_____. "Rounding Out the American Revolution: Ethical Extension and the New Environmentalism." In *Deep Ecology*, edited by Michael Tobias, 170–81. San Marcos, Calif.: Avant Books, 1988.

_____. *Wilderness and the American Mind*. New Haven, Conn.: Yale University Press, 1967.

Norton, Bryan. "Thoreau's Insect Analogies: Or, Why Environmentalists Hate Mainstream Economists." *Environmental Ethics* 13 (Fall 1991): 235–51.

Oats, David. *Earth Rising*. Corvallis, OR: Oregon State University Press, 1989.

Oelschlager, Max. *The Idea of Wilderness: From Prehistory to the Age of Ecology*. New Haven, Conn.: Yale University Press, 1991.

Ophuls, William. "Comment: On Hoffert and the Scarcity of Politics." *Environmental Ethics* 8 (Fall 1986): 287.

_____. *Ecology and the Politics of Scarcity*. San Francisco: W. H. Freeman, 1977.

_____. "Leviathan or Oblivion?" In *Toward a Steady State Economy*, edited by Herman E. Daly, 215–30. San Francisco: W. H. Freeman, 1973.

_____. "The Return of Leviathan." *Bulletin of Atomic Scientists*, March 1973, pp. 50–52.

_____. "The Scarcity Society." *Harper's*, April 1974, pp. 47–52.

Orr, David, and Hill, Stuart. "Leviathan, the Open Society, and the Crisis of Ecology." *Western Political Quarterly* 31 (December 1978): 457–69.

Paehlke, Robert. "Democracy, Bureaucracy, and Environmentalism." *Environmental Ethics* 10 (Winter 1988): 291–308.

_____. *Environmentalism and the Future of Progressive Politics*. New Haven, Conn.: Yale University Press, 1989.

Pinchot, Gifford. *Breaking New Ground*. New York: Harcourt, Brace and Co., 1947.

_____. *The Fight for Conservation*. New York: Doubleday, Page and Co., 1910.

_____. *The Power Monopoly*. Milford, Pa.: 1928.

_____. *A Primer of Forestry*. Department of Agriculture, Division of Forestry Bulletin no. 24, pt. 1. Washington, D.C.: Government Printing Office, 1900.

_____. *A Primer of Forestry*. Department of Agriculture, Division of Forestry Bulletin no. 24, pt. 2. Washington, D.C.: Government Printing Office, 1905.

Popovitch, Luke. "Environmentalism and the New Conservatives." *American Forests* 80 (March 1989): 18–20, 50–51.

Reed, Peter. "Man Apart: An Alternative to the Self-Realization Approach." *Environmental Ethics* 11 (Spring 1989): 53–69.

Regan, Tom. *The Case for Animal Rights*. Berkeley and Los Angeles: University of California Press, 1983.

Richardson, Robert D. *Henry Thoreau: A Life of the Mind*. Berkeley and Los Angeles: University of California Press, 1986.

Ridgeway, James. *The Politics of Ecology*. New York: Dutton, 1970.

Rolston, Holmes, III. *Environmental Ethics*. Philadelphia: Temple University Press, 1988.

Rubin, Charles T. "Environmental Policy and Environmental Thought: Ruckelshaus and Commoner." *Environmental Ethics* 11 (Spring 1989): 27–51.

Ruffins, Paul. "Interracial Coalitions." *Atlantic*, June 1990, pp. 28–34.

Sagoff, Mark. *The Economy of the Earth*. New York: Cambridge University Press, 1988.

_____. "On Preserving the Natural Environment." *Yale Law Journal* 84 (December 1974): 205–67.

Sale, Kirkpatrick. "Deep Ecology and Its Critics." *Nation*, 14 May 1988, pp. 670–75.

_____. *Dwellers in the Land*. San Francisco: Sierra Club, 1985.

Sessions, George. "Ecological Consciousness and Paradigm Change." In *Deep Ecology*, edited by Michael Tobias, 28–44. San Marcos, Calif.: Avant Books, 1988.

Simon, Julian L. *The Ultimate Resource*. Princeton, N.J.: Princeton University Press, 1981.

Spitler, Gene. "Justifying a Respect for Nature." *Environmental Ethics* 4 (Fall 1982): 255–60.

Stone, Christopher D. "Comment: Legal Rights and Moral Pluralism." *Environmental Ethics* 9 (Fall 1987): 281–84.

_____. *Earth and Other Ethics*. New York: Harper and Row, 1987.

_____. "Moral Pluralism and the Course of Environmental Ethics." *Environmental Ethics* 10 (Summer 1988): 139–54.

_____. Review of *The Economy of the Earth*, by Mark Sagoff. *Environmental Ethics* 10 (Winter 1988): 363–68.

_____. *Should Trees Have Standing?* Los Altos, Calif.: William Kaufmann, 1974.

Taylor, Paul. "In Defense of Biocentrism." *Environmental Ethics* 5 (Fall 1983): 237–43.

_____. *Respect for Nature*. Princeton, N.J.: Princeton University Press, 1986.

Thoreau, Henry D. *Early Essays and Miscellanies*. Edited by Joseph J. Moldenhauer et al. Princeton, N.J.: Princeton University Press, 1975.

_____. *The Portable Thoreau*. Edited by Carl Bode. New York: Penguin, 1977.

_____. *Reform Papers*. Edited by Wendell Glick. Princeton, N.J.: Princeton University Press, 1973.

_____. *A Week on the Concord and Merrimack Rivers. Walden: Or, Life in the Woods. The Maine Woods. Cape Cod*. New York: Viking Press, 1985.

Tokar, Brian. "Social Ecology, Deep Ecology, and the Future of Green Political Thought." *Ecologist* 18, no. 4/5 (1988): 132–41.

Tribe, Laurence H. "Ways Not to Think about Plastic Trees: New Foundations for Environmental Law." *Yale Law Journal* 83 (June 1974): 1315–48.

Tucker, William. *Progress and Privilege*. Garden City, N.Y.: Anchor Press, 1982.

Udall, Stewart L. *The Quiet Crisis*. New York: Holt, Rinehart and Winston, 1963.

Waldo, Dwight. *The Administrative State*. New York: Holmes and Meier, 1984.

Wenz, Peter. *Environmental Justice*. Albany: State University of New York Press, 1988.

_____. Review of *Environmental Ethics*, by Holmes Rolston III. *Ethics* 100 (October 1989): 195–97.

White, Lynn. *Machina ex Deo*. Cambridge, Mass.: MIT Press, 1986.

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Bob Pepperman Taylor is Elliott A. Brown Green and Gold Professor of Law, Politics and Political Behavior at the University of Vermont. He is the author of six books, including *Horace Mann's Troubling Legacy: The Education of Democratic Citizens*.

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