

DRAFT MANUSCRIPT—DO NOT CITE

**WHOSE NATURE?
THE CONTESTED MORAL TERRAIN OF ANCIENT FORESTS**

**Essay for
UNCOMMON GROUND: TOWARD REINVENTING NATURE
William Cronon, Editor
New York: W.W. Norton, 1995**

**James D. Proctor
University of California
Santa Barbara, CA 93106-4060**

Introduction

The Lane County Convention Center in Eugene, Oregon was packed with people one hot summer day in 1989. They were attending a hearing on whether that most prominent inhabitant of old-growth Pacific Northwest forests, the northern spotted owl, should be listed as a threatened species under the Endangered Species Act. There was the typical lineup of local officials, federal agency spokespersons, and representatives of environmental and timber industry interest groups on hand to voice their official positions. But the majority of the crowd consisted of ordinary citizens whose passionate beliefs on the issue led them to take time out from their busy schedules this Monday afternoon to attend.

Many people came that day to stand at the podium and voice their strong support for the proposed owl listing and protection of its old-growth habitat. Some felt that the issue was more than simply one of whether or not people should save the northern spotted owl:

My name is Barbara Kelley, director of Save Our Ecosystems. These hearings are not really about owls, nor are they about loggers. These hearings are about whether the timber industry shall be allowed to continue consuming our Northwest forests until there is nothing left of them but rows of even-aged monocultural tree farms susceptible to fire and disease, unsuitable for owls or cougars or fruits and nuts or streams or people....Do our congresspeople and foresters know that the nonhuman life that evolved in these forests for millions of years is going extinct for loss of habitat? Have they seen this list of 700 endangered and threatened species, which I'll give to you? This is what we are doing by the clearcutting.¹

Others enlarged the spatial scope of their concerns, arguing that the spotted owl issue was just the tip of an iceberg, one of many instances of our global environmental crisis:

I'm Jean Marie Aurnague. I'm an educator in Lane county. Dear Mr. Chairman, due to extreme and rapid destruction of 90 percent of the ancient forest which once covered the Northwest and of other forests of the world, we are experiencing, for example, diminishing species, like the spotted owl, a global warming trend, and holes in the earth's ozone layer....Where does this madness stop? I keep writing letters and involving myself in these crisis issues, hoping that somewhere I will

find an ethical response, one not biased by the economic basis which goes into the crisis to begin with. I ask you to list the owl, and I close with the hope that you will.

Though most of those in favor of spotted owl protection cited facts and figures to support their position, others spoke more directly of the moral obligation people have to save the owl:

I'm F.J. Petock and I'm representing myself, and I want to speak to the preservation of the spotted owl and to its establishment on the threatened species list, because I don't feel that any one species has the right to condemn any other species to extinction.

Not everyone in the room, however, supported the proposed spotted owl listing and its management implications for Pacific Northwest forests. A good number of people in attendance had a very different sense of right and wrong for the spotted owl. Some of these people worked for the timber industry, and offered their perspective on its environmental responsibility:

I am Jim Standard. I am from Medford, Oregon. In case you haven't noticed, I do work for the timber industry. I was born and raised in Oregon from pioneer stock. For generations my family has been involved in the timber industry in one aspect or another. We have always depended on timber for our livelihood, and because of this dependence, we have probably gained a respect for the forest and the land that few people will ever know....As long as I can remember, loggers have been accused of ruining wildlife habitat. From past experience, I would disagree. Unless a person has actually sat quietly at a logging site and watched and listened, they cannot appreciate the amount of wildlife that is around. After the machinery has been shut down for the day and even before the dust has settled, wildlife starts reappearing. Ask any logger who daily shares his lunch with a raccoon, a chipmunk, a raven, or even a doe and her fawn if he is destroying habitat or enhancing it. The timber industry has done more to perpetuate our natural resources than any other group I can think of. I find it hard to believe anyone would ever support throwing all of this away for the sake of saving a small bird who is not even in trouble and doesn't give a damn how big the tree he is living in or how old it is. I would urge you to do your best to protect the people that are doing their best to protect the forest.

Others spoke to the larger economic implications of listing the spotted owl, cautioning that not enough is known of its current status to warrant such drastic impacts on timber-dependent communities:

My name is Susan Morgan. I'm here today on behalf of WOOD, Workers of Oregon Development. We're a group of Douglas county families that make our living from the timber industry....WOOD urges the Department of Fish and Wildlife not to list the spotted owl as a threatened species. Not enough research has been done on the owl or its habitat needs....Don't destroy the fabric of the 100 families of WOOD and the thousands of families just like mine throughout the Northwest based on this incomplete and inadequate research. As the search continues, more and more owls are being found. Many of these are in second growth timber. WOOD urges continued research on the needs of the owl. Let's establish what habitat characteristics are necessary to maintain a stable population of owls. Let's duplicate these conditions in our modern managed forests.

The Eugene spotted owl hearing was part of a larger debate that has shaken the Pacific Northwest for the last decade—and there is little hope of resolution in sight. The focus of this debate has been on how we should manage what is perhaps the most significant feature of the region's landscape: its towering coniferous forests, many of which lie on public lands. At the center of the forest controversy has been the fate of the remaining old-growth stands, which by anyone's measure are among the most spectacular terrestrial ecosystems on Earth.²

In the months surrounding the Eugene hearing, major environmental organizations were mounting nationwide campaigns to secure public support for protection of old-growth—what they often called “ancient”—forests. Figure 1 shows a portion of a pamphlet entitled “Stop the Chainsaw Massacre” produced in early 1990 by the Eugene-based Native Forest Council. It graphically displays the current extent of “virgin forests” in the contiguous United States as being but a shadow of their presettlement expanse. And the massacre continues in the Pacific Northwest, according to the pamphlet, which claims that the equivalent of a 20,000 mile long line of log trucks takes timber out of the region annually under the clear support of the federal government.

Yet here again, different stories of the forest, different senses of right and wrong, emerged. Figure 2 shows portions of a tract produced in the latter 1980s by the pro-timber industry Oregon Project. The tract endorses the principle of “wise use” which, it claims, can provide for the nation’s timber demand and the region’s economic needs without compromising the needs of future generations or threatened species. It encourages those who “support forest conservation” to fly a yellow ribbon as a symbol of their support—and in fact, thousands of yellow ribbons flew from the fences and car antennas of sympathetic Pacific Northwesterners in the latter 1980s and early 90s.

It would be a mistake to dismiss the Oregon Project pamphlet as simply timber industry propaganda; to do so would be to silence the voices of Jim Standard, Susan Morgan, and the many others of the region who share their view.³ The position these people take highlights a crucial fact: there is more than one ethic, more than one sense of right and wrong, more than one way to care about the fate of Pacific Northwest forests. How, then, can we be sure that the environmentalists hold the moral high ground in their ancient forest campaign? It could be that there exists an infinite possible number of environmentalisms, each with its own nature to save. If so, then how are we to choose among them?

In the following essay, I will explore the ethics and related ideas of nature informing the ancient forest campaign, and consider whether and how the environmentalist agenda should change in light of the diversity of perspectives on right and wrong suggested in the spotted owl and old-growth debate. By focusing much of my critical attention on the ancient forest campaign, however, I by no means wish to imply that its opponents are beyond reproach. There is, for instance, a continuing need to scrutinize the wise use movement, which has proven to be a powerful ally of the timber industry in the Pacific Northwest.⁴ The main reason for my focus is that ancient forest campaign has been a paramount item on the recent

agenda of most major American environmental organizations: a careful look at its ethical foundations should tell us much about the moral scope and limitations of the larger environmentalist project.

A second caveat bears mention at this point: neither the supporters of ancient forest protection nor their detractors are as unified as this essay may seem to imply. The ancient forest campaign's ranks range from Republican Sierra Clubbers to radical Earth First!ers, many of whom have predictably disagreed at frequent intervals over how much they should compromise their demands in order to achieve some degree of ancient forest protection. Likewise, its opponents include people of many persuasions. Even among those directly involved in the timber industry, there are many divergent interests; consider for instance the tension inherent between millworkers and timber industry executives, or between small timber companies dependent on trees from federal lands and multinational timber companies like Weyerhaeuser with vast tracts of their own private stocks. Yet it would be equally foolish to assert that there is no coherence at all in the ethics suggested by the environmentalist and pro-timber positions on old-growth forest protection. In many ways, the polarization between these two sides brings some key moral issues into focus.

I am painfully aware of the perils inherent in this journey – and perhaps this is why so few people write on the ethics of the Pacific Northwest forest issue, in contrast to the reams of literature that has emerged on its ecological, economic, and other dimensions.⁵ Among the most difficult hazards to avoid, as suggested by Bernard Williams in his introduction to the field of ethics, is that one's own perceptual limitations and inadequacies are probably revealed more than in any other kind of work.⁶ In light of this danger, it is worth mentioning at the outset why I care about the Pacific Northwest forest issue at all – which may also shed some light on my own “perceptual limitations and inadequacies.” The answer is simple: the Pacific

Northwest is my birthplace, and in many ways I still call it my home. I grew up in a small timber community in rural Oregon, working its lumber mills and hiking its forest trails in the summertime. Throughout this period, I was profoundly uncomfortable with the moral dogmatism implied by both sides battling over the fate of these forests—though I was more sympathetic to the environmental position than that of the timber industry.

Since then I have left rural Oregon, aside for occasional visits, and have discovered a very different moral condition in contemporary society, one with which I am equally uncomfortable. I call it moral aphasia: an unwillingness or inability to speak of right and wrong in light of all the complexities surrounding moral issues. This essay represents part of my ongoing struggle to develop some alternative to moral dogmatism on the one hand and moral aphasia on the other as a contribution toward resolving the bitter struggles over nature that we witness in the Pacific Northwest and elsewhere. Any alternative to these positions must, I believe, embrace the paradox that ethics are inextricably framed within (often differing) human ideas, and yet speak of a reality beyond human ideas. Both sides of this paradox ultimately point to the rootedness of ethics, and especially environmental ethics, in what geographers call place. In his book The Betweenness of Place, the geographer Nicholas Entrikin describes such a perspective:

To understand place requires that we have access to both an objective and a subjective reality. From the decentered vantage point of the theoretical scientist, place becomes either location or a set of generic relations and thereby loses much of its significance for human action. From the centered viewpoint of the subject, place has meaning only in relation to an individual's or a group's goals and concerns. Place is best viewed from points in between.⁷

Entrikin's statement offers a guide for our journey, one reminding us to take seriously the objective and subjective features of the ancient forest campaign and its underlying ethic, yet to steer a path between these poles. To this task I now turn.

The Transformation of Pacific Northwest Forests

Some of the most spectacular coniferous forests on Earth are found in the westside Pacific Northwest—that tall, thin region stretching northward from northern California into Canada and situated between the Pacific Ocean and the Cascade mountain range. The Douglas-fir is the most extensive and commercially-important species, but others, including the sitka spruce, western redcedar, western hemlock, incense-cedar, and sugar pine, occur as well. One major reason coniferous forests exist here involves the region's climate. Its proximity to the Pacific Ocean yields ample precipitation and relatively mild temperatures, in which conifers (versus broadleaves, which usually shed their leaves in the winter) can grow year-round. In addition, conifers can survive well through the dry summers of the region.

The region's climate has changed over time, and so have Pacific Northwest forests.⁸ But change occurs on a much shorter timespan as well in Pacific Northwest forests, in large part as a result of a major natural process fostered by the summer-drought regime: fire. Wildfires not only provide ideal conditions for Douglas-firs to predominate (since they can take advantage of fire-created conditions, such as bare mineral soils and ample sunlight, for their seedlings to germinate and grow). More significantly, wildfires and other natural disturbances, such as windstorms and disease, are responsible for the dynamic process of succession evident throughout the region's forests.⁹ Succession refers to patterned changes in forest vegetation and structure with time. In the Pacific Northwest, forest succession may begin with the proliferation of grasses and forbs following a catastrophic fire, and move eventually to a multistoried forest with conifers as the tallest trees and various broadleaf species located beneath the conifer canopy. After a long time—perhaps several hundred years—the forest develops significant old-growth characteristics, with large-scale disturbances such as wildfires, and small-scale disturbances such as disease, opening up variously-sized patches to successional changes. Estimates of the pre-settlement

acreage of old-growth forests in the Pacific Northwest range from 60 to 90 percent of total forest coverage, or between roughly 15 and 24 million acres.¹⁰

Scientists have only recently begun to understand the ecology and habitat characteristics of old-growth forests.¹¹ This research has revealed that what is special ecologically about old-growth forests is not primarily their age but their structural complexity; age simply gives old-growth forests enough time to develop this complexity. Although live, large-diameter trees dominate much of the old-growth forest canopy, standing dead trees or snags and fallen rotting trees on the forest floor and adjacent streambeds are equally significant, especially in terms of their habitat role. The northern spotted owl, for instance, uses snags as nests, and much of its primary prey consists of small mammals which find food and shelter among decomposing trees on the forest floor.

The dynamic landscape of younger and older successional-stage forests in the Pacific Northwest was shaped to some extent by the land-use practices of native Americans long before Europeans arrived; for example, their common practice of burning grasslands often prevented incursion of the forest into river valley floors. Yet the rate and extent of transformation following European settlement is unmatched in the cultural history of these forests.¹² Timber production in the Pacific Northwest dates back to the late 1700s, but began in earnest in the mid-nineteenth century, when the region served as a resource hinterland for San Francisco and other growth centers in California to the south. Early logging was restricted to sites such as Puget Sound and Grays Harbor with prime timber located close to navigable bays. These were the first forests to fall as the timber industry spread in the latter nineteenth and early twentieth century, moving farther inland and uphill as the prime timberlands near waterways—once-magnificent forests, as early eyewitness accounts suggest—were quickly exhausted. Improved harvesting and transportation techniques, including crosscut saws, steam donkeys (developed to yard logs to loading sites), and mountain

railroads, played a key role in the increased rate and spatial extent of logging in the Pacific Northwest during this period. (Later in this century, chain saws, high-lead logging, and log trucks performed the same tasks with markedly greater efficiency.) Technological change increased production in mills as well, with early twentieth-century innovations such as wood chip-based paper and plywood.

The timber industry of the Pacific Northwest boomed following World War II; it was now able to extract and process lumber with frightening efficiency, and the demand for wood products on the U.S. west coast exploded as housing was built for those flocking into southern California. Although timber harvests remained fairly constant in the 1950s and 1960s in the Pacific Northwest, public lands supplied more and more timber as private reserves – those first exploited – were largely exhausted during this period. With harvest levels reaching all-time highs in the 1960s and 1970s, the potential effects on future timber supply – now on federal as well as private lands – became increasingly clear.¹³ Nonetheless, following the recession-based downturn in timber production in the early 1980s, federal timber harvests for the period 1985-89 neared historic highs – a clearly unsustainable level referred to in a recent Forest Service assessment as a “one-time drawdown.”¹⁴

This one and one-half century-long phenomenon of timber extraction has profoundly transformed the landscape of the westside Pacific Northwest into one dominated by young and mid-successional-stage forests. Old-growth forests have been logged for clear reasons: these forests provide abundant and valuable wood (one 1981 article cites 100 acres of old-growth forests having \$1.6 million merchantable timber),¹⁵ and young stands grow wood fiber much faster than older stands. Additionally, disease, death and decay in old-growth stands renders much of its timber useless from a lumber standpoint. Timber industry assessments often speak matter-of-factly of the need to convert unproductive and unmanaged tracts of old-growth forest to younger forests that produce wood fiber much more efficiently.

These managed forests are generally logged within 40 to 80 years, much sooner than is required to achieve old-growth characteristics.¹⁶

How much old-growth is left? The answer to this heated question depends on how restrictively one defines old-growth forests. The timber industry has claimed that public lands have as much as 7.5 million acres – perhaps half the original extent. Environmentalists, however, have used detailed studies to claim that as little as 2 million acres remain (perhaps less than ten percent of their extent prior to European settlement).¹⁷ One major recent assessment includes mature forests (those in which the net rate of growth has peaked and are starting to exhibit old-growth habitat characteristics) along with old-growth under the category of “late-successional forests.” Following this approach, approximately 8.5 million acres of medium and large-conifer late-successional forest are found on federal lands in the range of the northern spotted owl in Oregon, Washington, and northern California.¹⁸ No matter which definition is used, however, it is indisputable that logging has been the primary factor responsible for loss of old-growth forests.

One major implication of the diminished extent of old-growth forests is that habitat for associated wildlife is far less than existed prior to their transformation by Europeans. This includes far more than the northern spotted owl: a total of 667 species, including 555 terrestrial plant and animal species – micorrhizal fungi and subalpine fir, huckleberries and ladyslippers, pebblesnails and salamanders, woodrats and woodpeckers – and 112 fish stocks or species, are closely associated with old-growth coniferous forests of the Pacific Northwest.¹⁹ In contrast to the spotted owl, however, forest biologists know relatively little about how many of these species have been affected by the loss of habitat.

The Ancient Forest Campaign

Though the ancient forest campaign dates back little more than half of a decade, its efforts are not new to the region. In many ways, they are an outgrowth of nearly a century of dispute in the Pacific Northwest over preservation of the region's forest landscape in the form of national parks – such as Olympic National Park, dedicated in 1938 after years of controversy – and wilderness, beginning with the Wilderness Act of 1964 and including later additions in the 1970s and 1980s. In all, Congress had set aside a total of 3.6 million acres of national parks and wilderness in westside Oregon and Washington by the mid-1980s – though the bulk of these were relatively high-elevation areas less suitable for timber production.²⁰

The ancient forest campaign has been far greater in scope than these earlier efforts, however, focusing on all remaining old-growth on U.S. Forest Service and Bureau of Land Management forests in westside Washington, Oregon, and northern California. According to William Dietrich, the term “ancient forest” was coined in 1988 by executives of the Oregon Natural Resources Council, a regional group that has played a key role in monitoring timber sales and national forest plans. They dispensed with “old growth” as too jargony, and “primeval forest” as rather dark and obscure; “ancient forest,” in contrast, stressed a longstanding, preexistent nature that fascinated people and compelled them to help protect it.²¹ The term stuck, and has provided a resonant metaphor for efforts to save old-growth forests of the Pacific Northwest.

Many of the leading environmental organizations in the United States have invested heavily in the ancient forest campaign, and have similarly benefited from its success. One notable example is the Wilderness Society, which opened an office in Portland, Oregon in 1989 in response to the popularity of the cause, and in little more than two years effectively doubled its membership. The Wilderness Society commissioned research and published reports on the ecological limitations of

national forest plans, the unsustainable economics of the timber industry, and the current extent of old-growth forests.²² Nationwide groups have teamed up with smaller, regionally-based organizations to form broad-based coalitions such as the Ancient Forest Alliance, which has promoted congressional legislation to protect remaining mature and old-growth coniferous forests in the Pacific Northwest and elsewhere.

The campaign has a dual identity, with powerful moral and political dimensions. Its evangelistic fervor is evident in its outreach to people across the country for financial support; its hard-hitting legal efforts have been remarkably successful in achieving desired ends. One example of the latter is a lawsuit brought against the U.S. Forest Service by the Seattle Audubon Society and other environmental groups in 1989, which eventually resulted in an injunction granted against all timber sales in old-growth spotted owl habitat until the Forest Service could demonstrate that its forest management plans were in compliance with the vertebrate viability requirements of the National Forest Management Act.²³

In these legal efforts, environmentalists have relied heavily on recently-expanding scientific knowledge regarding the ecology of old-growth forests and the extent of human impacts. This skillful utilization of science to effect policy change is clear in what was perhaps the pivotal turning point in the ancient forest campaign: the successful petition to protect the northern spotted owl, *Strix occidentalis caurina*, and its old-growth habitat. The northern spotted owl resides only in the coniferous forests of the Pacific Northwest. Concern among scientists and laypeople over the fate of the spotted owl in light of reduction of old-growth forest by widespread logging grew during the 1980s, culminating in the decision by the U.S. Fish and Wildlife Service effective July 23, 1990 to list it as a threatened species throughout its range under provisions of the Endangered Species Act.²⁴ The decision was based on scientific evidence suggesting that timber management practices had largely replaced old-

growth habitat with a mosaic of young and middle seral-stage forests unsuitable for the spotted owl, and that current regulatory mechanisms for existing owl habitat were not adequate to guarantee its survival.²⁵

Following the listing, the FWS designated a total of 6.9 million acres as critical owl habitat to ensure the owl's recovery.²⁶ Since then, recovery efforts have been coordinated with larger federal proposals for biodiversity conservation on public forests, given the widespread recognition that old-growth forests serve a number of critical ecosystem functions in the region—for instance, they play a key role in maintaining watersheds used by anadromous fish species like salmon. A major recent event in this process was the Clinton administration's timber summit of April 1993, which resulted in a scientific panel commissioned to devise and assess management options—including the Administration's preferred Option 9—for old-growth federal forests.²⁷ In its revised form, Option 9 provides for some 7.4 million acres of late-successional reserves on public forests in the range of the spotted owl, with 2.6 million acres of riparian reserves to protect aquatic habitat and provide some reserve connectivity.

Though ancient forest advocates desired even more old-growth protection than was offered in Option 9, one cannot help but conclude that the ancient forest campaign has been an enormous policy success. Only two decades ago, biologists and conservationists had extreme difficulty getting federal agencies to set aside 300 acres surrounding known spotted owl nest sites—approximately 120,000 acres total—to protect the species.²⁸ Now, in the mid-1990s, proposed federal forest reserves represent a nearly one-hundredfold increase over that figure. Clearly, environmental protection has become a major priority in management of public forests in the Pacific Northwest.

Ancient Forest Ethics

Why have environmentalists struggled to save the old-growth forests of the Pacific Northwest? The answer, at least in part, is that they care deeply about those forests, and are grieved at the extent of their transformation by humans. They believe it to be a moral duty for people to protect what little remains; some even argue that it is our duty to restore these forests to their pre-logging status. Perhaps environmental organizations have seized on the ancient forest campaign as an effective strategy to boost their membership and status; but these reasons do not explain why so many thousands of people have joined their ranks to fight the ancient forest battle.

As an example of the embedded moral character of the ancient forest campaign, consider the words of Barbara Kelley we encountered at the outset. Though she offers scientific evidence of “loss of habitat” and of “700 endangered and threatened species,” behind those facts are values that result in her concern for endangered species. Without these values, facts alone would not lead to any specific notion of right or wrong, or any particular policy implications. Others are more straightforward in revealing their values: F.J. Petock comes out firmly against the belief that “any one species has the right to condemn any other species to extinction,” and Jean Marie Aurnague speaks of her hope for an “ethical response” to the ancient forest crisis. Values are also central to the Native Forest Council pamphlet’s justification for protecting ancient forests. Its maps show the depletion of old-growth forests in the United States over the last three and a half centuries. But as the text suggests, this depletion is meaningful only in the context of the great worth people confer on forests. This is why the pamphlet begins with “America’s forests are priceless,” and then lists the ways in which people value forests.

As much as it is political in implementation, then, the ancient forest campaign stems from environmentalists’ values, which point to principles of right and wrong

conduct. The link between values and conduct is the realm of ethics. Ethics encompasses ideas and practice, the beliefs people hold concerning ancient forests and their implications for forest management. A focus on ethics in the ancient forest campaign clarifies for us its moral bearing, its sense of why we should treat Pacific Northwest forests in a particular way.

Environmental philosophers have typically classified systems of environmental ethics into several categories, due principally to the type of value conferred upon nature. They often make a distinction between intrinsic and instrumental value.²⁹ Intrinsic value in nature implies that its worth is independent of its utility to humans; instrumental value implies that its worth depends on its ability to serve a human end. “Is it good?” is a question of intrinsic value; “What is it good for?” is a question of instrumental value. Forests, for example, could possess intrinsic value as communities of non-human life, whether or not this life benefits people; or they could possess instrumental value forests as sources of timber, or as wonderful places to hike, or even because they combat the greenhouse effect or may contain pharmaceutically-valuable plant species.

This twofold taxonomy of value leads to a similarly twofold schema of anthropocentric and non-anthropocentric ethics. An anthropocentric ethic is suggested in situations where people value nature instrumentally, as a means to human material, aesthetic, or other ends. Non-anthropocentric ethics, in contrast, are those in which people primarily value nature intrinsically, without reference to human ends (I say “primarily” because instrumental value is also implicitly accorded to nature under most non-anthropocentric ethics).

To be sure, this reduction of all possible environmental ethics into two main categories sounds rather simplistic. Some environmental philosophers have responded by proposing subcategories of these two major types. For instance, anthropocentrism can be expressed as resourcism, in which people value nature as a

material resource, or as preservationism, in which nature's worth follows from its inspirational value.³⁰ Other writers distinguish between narrow forms of anthropocentrism, in which nature's worth is calculated only with reference to a select group of people or a certain human end, and broader forms, in which more people and possible ends count.³¹ In all cases, however, the primary reason to save nature is that it benefits people, so all of these ethics can be labeled anthropocentric. Similarly, philosophers have proposed several different forms of non-anthropocentric ethics. Biocentrism, for instance, is an individualistic non-anthropocentric ethic that confers value primarily on species, whereas ecocentrism is a more holistic ethic that confers value primarily upon ecosystems.³²

Many philosophers have argued that the longstanding anthropocentric basis of human relations with nature must give way to a broader, non-anthropocentric ethic.³³ They contend that there is no way to stretch anthropocentrism far enough to compel people to care about non-human life, because in many cases the benefit to humans is negligible. The biologist David Ehrenfeld offers one example of the limits of anthropocentrism in an essay entitled "The Conservation of Non-Resources."³⁴ The author tells us of the Houston toad, *Bufo houstonensis*, which "has no demonstrated or conjectural resource value to man, other races of toad will replace it, and its passing is not expected to make an impression on the Umwelt of the city of Houston or its suburbs." So why should anyone save a non-resource such as the Houston toad? Clearly, Ehrenfeld suggests, anthropocentrism prioritizes those aspects of nature which can conceivably be valued by someone; others, such as the Houston toad, have little chance of survival, especially if they stand in the way of other human goods. Following this argument, anthropocentrism appears to be far too limited and skewed a moral foundation for people to genuinely care about nature.

To some extent, the ancient forest campaign is a critique of the anthropocentric ethics that have historically defined relations between people and Pacific Northwest

forests, and a plea to value forests differently, to adopt a more non-anthropocentric ethic. To environmentalists, ancient forests stand as the last remnant of a natural landscape that over the last century has been radically altered because people valued the forest primarily for its timber wealth. Without assigning some intrinsic worth to the remaining ancient forests, without valuing them as the complex living communities they comprise, there appears little hope of sparing them, since their timber wealth is unarguable.

Environmentalists have been assisted in this moral campaign by powerful legislation such as the Endangered Species Act, which offers a legal basis to protect non-human life without reference to good or bad impacts on humans. There was little need at the Eugene hearing, for example, for supporters of spotted owl protection to offer compelling proof of human benefits resulting from such an action; they simply argued that the owl was in danger of extinction, and that we have a moral and legal obligation to prevent this from happening. Imagine what the outcome would have been if supporters and opponents of owl protection were restricted to instrumental-value justifications of their positions. It is perhaps possible to imagine that some people would miss the spotted owl's solitary hoot and fearless ways, but many more would benefit from logging its old-growth habitat.

The spotted owl and ancient forests thus appear to be classic cases suggesting the limits of anthropocentrism, and why we need a broader, non-anthropocentric ethic to guide relations between people and Pacific Northwest forests. Anthropocentrism, in this view, is an ethic in which one can't see the forest for the trees. Where people once treated forests as sources of lumber, jobs, and profits, the ancient forest campaign suggests that they must also be treated as biotic communities, as complex ecosystems, as centers of biological diversity. The moral logic underlying the ancient forest campaign echoes the famous words of Aldo Leopold, who spoke favorably of a land

ethic that “changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it.”³⁵

Yet it would be a simplification to assert that the ancient forest ethic is wholly non-anthropocentric, or that it alone can lay claim to this ethic. Look at the Native Forest Council pamphlet again. It notes that forests provide wildlife habitat, but strongly emphasizes their instrumental value as well: according to the pamphlet, they give people drinking water, regulate global and regional climates, and offer spiritual enrichment and renewal. This line of moral argument, in fact, resembles that pursued in the Oregon Project pamphlet, which defends its radically different approach to forest management using both instrumental and intrinsic-value arguments. It notes, for instance, that “every American uses the equivalent of a 100 ft. tree each year,” as well as that “threatened species populations, such as the bald eagle and peregrine falcon are increasing thanks to forest management practices.” Apparently, both sides in the old-growth debate claim that their preferred approaches benefit both humans and non-humans alike.

One possible explanation for the apparent ethical similarity in these two divergent positions is that they are both appealing to the same audience—an American public that generally wants to know how it will benefit from protecting the environment, yet that has also shown increasing concern for protecting wildlife in recent decades. Clearly, the Native Forest Council pamphlet must be understood more as a means to secure the support of the reader than as some definitive guide to the ethics underlying the ancient forest campaign. But it does caution us against believing that this widespread support has been based solely on a non-anthropocentric ethic that stresses the need for people to save nature irrespective of human gains or losses. To be sure, there are probably many such as Jean Marie Aurnague and F.J. Petock who believe passionately in this moral duty. But others such as Barbara Kelley feel that there is little difference between impacts on humans and impacts on non-humans: once the

forests have all been logged they will be “unsuitable for owls or cougars or fruits and nuts or streams or people.” And it is certainly possible that still others have decided to support the ancient forest campaign for wholly anthropocentric reasons – perhaps they want those forests preserved so they and their children can visit them some day.

There is thus a need to expand upon the anthropocentric/non-anthropocentric distinction in order to understand better the values and ethics underlying popular support for ancient forest protection. We can accomplish this end by looking more closely at some of the ideas of nature suggested in the ancient forest campaign and their moral implications.

Ethics and Ideas of Nature

The ancient forest ethic is closely tied to a particular reading of Pacific Northwest forests and human impacts on these forests – one not necessarily shared by everyone, as the spotted owl testimony indicates. Consider, for a moment, the forest as described by Barbara Kelley and Jim Standard. Kelley’s forest once supported a diverse set of species that had long evolved to thrive there; now, logging has destroyed this habitat. Standard’s forest, however, is different. Here logging has actually benefited wildlife: “Ask any logger who daily shares his lunch with a raccoon, a chipmunk, a raven, or even a doe and her fawn if he is destroying habitat or enhancing it.” Though it is impossible to judge their sincerity from the brief testimony they gave, it seems quite reasonable to conclude that Kelley and Standard actually share an ethic of concern for habitat of nonhuman species. Yet where one sees a ravaged forest, the other describes a haven for wildlife. Their ideas of nature thus point them in widely differing directions in spite of their similar concerns.

The ancient forest campaign is to a great extent built on a particular temporal and spatial conception of Pacific Northwest forests. Their preeminent temporal quality is clearly age, stretching back to long before Europeans arrived. This idea of nature is

suggested in the very words the ancient forest campaign employs to describe Pacific Northwest old-growth forests: “ancient,” “pristine,” “primeval,” “virgin.” Ancient forests, on this view, thus predate and stand outside of European history. They are the result of the forces of nature over centuries and millennia. Ancient forests are not only old, according to this conception, but are remarkably stable and resilient as well.³⁶ Perhaps fire and other natural disturbances would come on occasion, but whatever ancient forest was destroyed would return after a few centuries of succession. They were thus the spatial dominant of the natural forest landscape. One could readily imagine, after reading the Native Forest Council pamphlet, that virtually the entire presettlement landscape of the westside Pacific Northwest was once covered with a living blanket of old-growth forests dating back far before Europeans even set foot on the North American continent.

The particular view of Pacific Northwest forests suggested in the ancient forest campaign is not just some conception of nature; it is also a conception of the ideal role of humans in nature, which ties directly into ethics. If the good qualities of stability and longevity in ancient forests are separate from the work of humans, the best thing people can do to these forests on this view is simply leave them be. This notion that people should not intervene in nature is supported by the spectacular landscape appeal of ancient forests – who could argue that people should cut down these forests when logging constitutes such a visual blight in comparison! It is also reinforced for reasons beyond the Pacific Northwest. Ancient forests represent to its protectors the last remnant of untouched American forests; witness the marked reduction in “virgin” forests of the United States graphically displayed on the Native Forest Council pamphlet.³⁷ To environmentalists, the battle over the ancient forests is one to save what little remains of pristine nature in the United States, and to affirm the ideal role of humans in nature in at least one small part of the American landscape.

This sense of nature and our role in it is, of course, not new, nor is it spatially limited to Pacific Northwest forests. It is, in large part, an outgrowth of the idea of wilderness that has pervaded American environmentalism during this century, an idea William Cronon has examined elsewhere in this volume.³⁸ Cronon observes how wilderness in the United States has been intimately associated with romantic notions of the sublime – of extraordinary sacred places where inspiration and even God Himself could be found – and of the particularly American concept of the frontier, where wilderness serves as a counterpoint to the country’s expanding cultural landscape.

Both the sublime and the frontier are evident in the ancient forest campaign, and serve as guides to its powerful aesthetic – the sense of beauty and good inherent in old-growth forests. Though much of the ancient forest campaign has been couched in the language of ecology and biodiversity protection, it is as much the overwhelming beauty of old-growth forests that has compelled so many people to lend their support as recognition of their ecosystem integrity.³⁹ The outreach efforts of environmental groups all stress the great aesthetic power of ancient forests and the sheer ugliness of clearcuts. The Native Forest Council pamphlet, for instance, emphasizes the latter on its reverse side, where one finds a graphic portrait of a forest laid waste by logging, with the caption “Stop the Chainsaw Massacre” above.

As Cronon argues in his essay, however, the notion of nature as wilderness has led American environmentalism down a peculiarly narrow path. A similar argument is made by Michael Pollan in an essay exploring the ethical limitations of equating nature with wilderness.⁴⁰ Pollan tells of a tornado that blasted through his New England town in the late 1980s and knocked down a highly-valued, forty-two-acre expanse of old-growth forest known as Cathedral Pines. A debate soon grew over what was to be done. One side wanted Cathedral Pines to be cleared of the blowdown and replanted; others, more in the spirit of letting nature take its own course as

suggested in the ancient forest campaign, wanted it to be left alone. As one biologist stated, “It may be a calamity to us, but to biology it is not a travesty. It is just a natural occurrence.”⁴¹

Why did some people want the mess of twisted trees to remain at Cathedral Pines? Surely there was no spectacular beauty or stability suggested in this fallen landscape. Pollan argues that what he calls the “wilderness ethic” played a key role in their decision—in fact, many people did view Cathedral Pines as one of the area’s last remaining examples of wilderness. The wilderness ethic, Pollan argues, is “based on the assumption that the relationship of man and nature resembles a zero-sum game,” where any intervention by humans, whether to help or harness nature, constitutes harm. To step in and clean up the mess made by the tornado would then violate Cathedral Pines; according to the wilderness ethic, nature should be left alone.

There are two problems with this view, according to Pollan’s argument. The first is that seemingly “pristine” parts of nature have often been shaped much more than we realize—Cathedral Pines actually was cleared in the late eighteenth century and thinned of hardwoods some years later, and Pollan suggests that it would never have remained as it is for so long without active fire suppression. The second problem is that the wilderness ethic gives us little guidance in deciding what to do with areas that do not meet a “wilderness” classification. This ethic is clearly silent about these areas—even though the vast majority of what we call nature consists of them. Pollan writes:

“All or nothing,” says the wilderness ethic, and in fact we’ve ended up with a landscape in America that conforms to that injunction remarkably well. Thanks to exactly this kind of either/or thinking, Americans have done an admirable job of drawing lines around certain sacred areas (we did invent the wilderness area) and a terrible job of managing the rest of our land. The reason is not hard to find: the only environmental ethic we have has nothing useful to say about those areas outside the line. Once a landscape is no longer “virgin” it is typically written off as fallen, lost to nature, irredeemable. We hand it over to the jurisdiction of that other sacrosanct American ethic: laissez-faire economics.⁴²

As Pollan suggests, environmentalists have drawn lines in the Pacific Northwest in their campaign to save what is left of the ancient forests. Yet if their claim is correct that perhaps only ten percent of the ancient forest remains in the region, what are we to do with the remaining ninety percent—the millions of acres of forests which have already been logged? Are they all to be restored to ancient forests? Perhaps the ancient forest campaign has also suffered from too limited a view of nature, one in which places modified by humans cease to be natural anymore. As Pollan would argue, such a view may be good for those parts of nature actually untouched by humans (though he maintains that these may not even exist), but it offers little perspective on all the rest. Pollan is concerned both about environmentalists' excessive concern for "wilderness" areas and their apparent lack of concern for nonwilderness. He laments, "Essentially, we have divided our country in two, between the kingdom of wilderness, which rules about eight percent of America's land, and the kingdom of the market, which rules the rest."⁴³

So far I have briefly traced the idea of nature and the ideal role of humans suggested in the ancient forest campaign back through the concept of wilderness, with the help of Cronon and Pollan. I could end here by suggesting fuller metaphors of nature than wilderness to inform management of Pacific Northwest forests, given its deficiencies noted above.⁴⁴ But there is an even more disturbing conclusion I want us to reach from this discussion: if indeed the ancient forest campaign is founded on an ethic closely tied to a particular view of nature, then it reflects only one of potentially many different forms of environmental concern, each informed by its own sense of nature.

The scholar Barbara Deutsch Lynch provides us with one such alternative reading of environmental concern in an essay that examines the ideas of nature shared among U.S. Latino communities, and their differences from mainstream environmentalism.⁴⁵ Lynch tells of Daniel Perez, a Dominican immigrant who planted corn, garlic,

tomatoes, and black beans on a littered median strip in New York City; of José García, a Puerto Rican who retreats to his garden to escape the oppressiveness of New York; of Latinos who board party boats in Sheepshead Bay in New York and catch bluefish along the way to eat and sell when they return to port.

These stories suggests a nature far different from that typically associated with environmentalism, one which, according to Lynch, is nonetheless equally worthy of this characterization. Lynch argues that “the environment is a social construction: a product of cultural responses to specific historical circumstances which give rise to shared sets of imagined landscapes.”⁴⁶ Among Caribbean Latinos, Lynch notes, the garden and the sea have been powerful symbols not only of nature, but of livelihood and political resistance. Their perspective, however, has been largely silenced in mainstream environmentalism due, she argues, to an unequal distribution of power in society that favors certain social constructions of nature at the expense of others. Lynch concurs with Cronon and Pollan in contending that mainstream environmentalism treats nature more as a wilderness than as a garden. In the garden, humans are an active and appropriate part of nature; in the wilderness, they are intruders. Latino environmentalism, in which the garden metaphor is central, thus rejects the dichotomization of people and nature that has pervaded contemporary environmentalism.⁴⁷

In many significant ways, Lynch’s account of nature and the proper role of humans in nature among New York Latinos resonates in the testimonies presented by Jim Standard and Susan Morgan at the Eugene hearing. According to their perspective, the active management of nature by humans in the Pacific Northwest has in fact improved it, in the same way that a gardener’s toil enhances the garden. Standard, for example, suggests that logging has enhanced the quality of natural resources and wildlife habitat in his defense of timber industry practices. The logger, like the gardener, is close to nature because he labors to improve nature.⁴⁸ As Standard observes, “We

have always depended on timber for our livelihood, and because of this dependence, we have probably gained a respect for the forest and the land that few people will ever know.” Morgan also believes that people working for the timber industry possess an intimate knowledge of forests. This leads her to speak confidently of their ability to manage forests for both human and non-human benefit: “Let’s establish what habitat characteristics are necessary to maintain a stable population of owls. Let’s duplicate these conditions in our modern managed forests.” The sentiments of Standard and Morgan are echoed in the Oregon Project leaflet, which also clearly supports active human intervention in forests. In its endorsement of Gifford Pinchot and his philosophy of conservationism, the leaflet asserts that humans are by no means intruders in nature, nor even the fellow travelers that Leopold praised; instead people are nature’s managers, charged with the responsibility of using the resource wisely – a notion with far different implications for the fate of ancient forests than that of the environmentalists.

Whose Nature? Whose Ethic?

The ancient forest campaign has been supported by people like Jean Marie Aurnague, F.J. Petock, Barbara Kelley, and thousands upon thousands of others across the country who consider it their moral duty to protect the Pacific Northwest old-growth forest and its biota. They have joined environmental groups like the Wilderness Society, Sierra Club, and the Native Forest Council; they have sent letters to their congressional representatives; they have attended hearings, speaking passionately for saving what little remains. Their efforts have resulted in unprecedented policies to restrict logging in mature and old-growth forests of the Pacific Northwest.

And yet this essay has suggested that the ancient forest they strive to protect is as much a reflection of their own particular view of nature as it is some primeval

ecosystem under siege by logging. Their ethic, their passionate sense of right and wrong, is only one of many possible ethics. It is enmeshed in a particular, culturally-based idea of nature. Viewed from a different perspective—the most notable in the Pacific Northwest being the wise-use ethic of those who support the timber industry—a whole different set of preferred practices and policies emerge.

The ancient forest emerges as a contested moral terrain, a focus of dispute arising from divergent ideas on what nature is and should be, what our role in nature is and should be. The testimonies people made on the proposed spotted owl listing offer clear evidence of this diversity of perspectives on right and wrong. To some people attending that hearing in Eugene, the spotted owl was the proverbial canary in the coal mine, proof that the Pacific Northwest old-growth forest ecosystem was in immanent danger of collapse. To others, the spotted owl was yet another preservationist ploy, a fluffy, big-eyed snail darter whose listing case was deliberately advanced to obstruct sound management of the region's forest resources.

Yet in spite of these differences, both sides were apparently deeply concerned about the ways people affect Pacific Northwest forests. Their point of difference was thus not one of whether people should care about nature, but how and why. So there is the Native Forest Council and Barbara Kelley, and there is the Oregon Project and Jim Standard. There is environmentalism, and there are alternative environmentalisms, in the Pacific Northwest. Whose is right? Whose nature ought we to protect? This is the troubling question that arises out of acknowledging that environmental ethics are enmeshed in ideas of nature.

There are several familiar ways out of this dilemma that I find unacceptable. The easiest (or at least most politically popular) solution would be to protect everyone's nature. And there has been a good deal of interest in finding advanced management techniques which can combine high levels of timber production with environmental protection in the region's forests. Some of these have gone under the banner of "New

Forestry,” defined as “the principle of integrating ecological and environmental values with forest commodities production.”⁴⁹ Yet even under optimum assumptions, such techniques entail significant economic costs – such as estimated reduction of timber harvests over the long term by a minimum of twenty-five percent – which many timber companies may not readily be able to absorb.⁵⁰ To take another example, the Clinton administration’s Option 9 was deliberately crafted to provide high timber harvests and still comply with environmental protection laws. Its projected annual timber sale level of 1.1 billion board feet, however, falls far below the 1980-1989 federal forests harvest average of 4.5 billion board feet.⁵¹ In other words, one cannot easily accommodate everyone’s nature in the Pacific Northwest; society has no other option but to make hard choices.

Another problematic solution to this dilemma can be termed the compromise argument, which asserts that all sides in the battle are extremists. They want too much. Common sense, it would seem, tells us that the right course of action is somewhere in the middle. On this view, the nature we should save in the Pacific Northwest will have some forest preserved as old-growth, and some forest devoted to timber production. There are several weaknesses with the compromise argument. Its some-of-both solution might in principle seem attractive to all sides, but the difficulty comes in trying to agree on how much land should be devoted to each of these differing landscapes. Anyone who has followed the old-growth debate through to the present knows how much conflict there has been over that little detail! For instance, both sides have struggled to defeat the Clinton administration’s Option 9 strategy for managing Pacific Northwest forests: the environmentalists contend that it protects too little of nature, while timber industry supporters argue that it protects too much.⁵²

A more philosophical limitation with the compromise argument is its assumption that right and wrong are determined by striking a balance between competing claims. But what if one side turns out to be morally bankrupt? Imagine applying the

compromise argument to settle the nineteenth-century dispute between slaveholders and abolitionists: would the right course of action have been to permit slavery but ensure that slaves were, for example, adequately fed and sheltered? The moral claims of the ancient forest campaign are in some senses similar to those of abolitionists, in that many environmentalists assert – rightly or wrongly – that our duties to nature are non-negotiable.⁵³

The biggest problem with the “both-and” and compromise solutions, however, is that they focus more on policy and management than on values, ethics, and ideas. When we ask whose nature we are to choose in the Pacific Northwest, we are forced to listen carefully to the testimonies of the people at the Eugene hearing, to the arguments of interest groups like the Native Forest Council and the Oregon Project. At the core of these arguments is always some statement of right and wrong that we must, I believe, critically yet sensitively assess. And how is this to be done? It is easy to be sympathetic to Susan Morgan’s pleas that we should protect timber-dependent communities, or to share the concern of Jean Marie Aurnague when she paints a gloomy picture of global environmental destruction. We realize that what we hear are passionate descriptions of the world these people experience and understand. But appreciating their worlds, their natures, cannot in and of itself resolve this problem.

I propose that we have no choice but to embrace a necessary paradox. What we behold in the Pacific Northwest old-growth forest battle are differing conceptions of Pacific Northwest forests and our role in relation to them, coming from people who are differently-situated with respect to these forests, who hold differing values and interests. Yet at the same time it is the same forest, the same spotted owl, the same system of human relations with nature to which these distinct ethical positions refer. The environmental ethics we wish to assess and criticize, in other words, have intermingled subjective and objective dimensions: they are framed within the reality of human ideas, and they speak of a reality beyond human ideas. There is no nature

wholly outside of culture we can invoke as a fixed point for judging the ethical perspectives arising in the old-growth debate; yet it is chauvinistic to assert that nature cannot exist independent of our ideas of it. This paradox appears to offer rather slippery advice on whose nature one should choose in the Pacific Northwest. Yet I believe it provides three key guiding notions, which I will discuss in the remainder of this section: (a) a realist form of moral pluralism, (b) an anthropogenic, though not necessarily anthropocentric, moral basis, and perhaps ultimately (c) a sense of ethics rooted in, but not limited to, place.

Accepting that ethics are simultaneously enmeshed in and refer to a world beyond human ideas leads us to steer between the two familiar poles of absolutism on the one hand and relativism on the other. Absolutism arises from conveniently ignoring the subjective dimension of environmental ethics. It asserts that right and wrong are fairly straightforward decisions based, for example, on comparing a particular ethic against its claims on objective reality – reality “out there.” For instance, an absolutist may say that the timber industry’s ethic promoting active human intervention to improve nature is wrong because ecological evidence clearly shows how people have damaged Pacific Northwest forests. Relativism can arise either from wallowing in the subjective dimension of ethics to the point that reality becomes irreparably fractured, or from asserting that even if we could come to some consensus about what reality is, this sense of reality would not offer us any moral guidance – a position known in moral philosophy as the fact-value distinction.⁵⁴ Either way, according to the moral relativist, right and wrong only make sense within a particular, socially-based perspective.⁵⁵ On this view, it makes no sense to ask whose nature we should save in the Pacific Northwest; there are simply conflicting accounts, each of which has numerous adherents believing passionately that they are right.

Yet there is considerable room between dogmatic moral absolutism and relativism to develop some realist notion of moral pluralism, a view that ethics must necessarily

encompass diverse perspectives yet help us make sense of how to act in this world – a shared reality not altogether reducible to these perspectives.⁵⁶ Moral pluralism is by definition non-absolutistic; yet it need not be relativistic, either. Since ethics inevitably make claims on reality, not all ethical positions are valid just because people believe them; some are tied to factually incorrect claims or lead to undesirable results. The environment may in large part be, as Lynch argues, a social construction, yet it is not infinitely malleable to our versions of it.

The connection between ethics and reality is not straightforward, because reality itself is not straightforward. For instance, there is no clear balance of nature in Pacific Northwest forests we can describe and invoke as some ideal landscape people should try to protect or restore.⁵⁷ But if people value non-human life and its habitat – and remember that both sides in the old-growth debate voiced this concern – then there is emerging evidence as to what kinds of habitat people need to protect. Recall for a moment the testimonies of Barbara Kelley and Jim Standard. Kelley speaks of how the timber industry has reduced forests to “even-aged monocultural tree farms,” which has drastically reduced old-growth habitat for spotted owls. Standard, in contrast, argues that “the timber industry has done more to perpetuate our natural resources than any other group I can think of,” and he simply cannot understand all the fuss over “a small bird who is not even in trouble and doesn’t give a damn how big the tree he is living in or how old it is.” There is a conflict of interests – he wants to save his job, she wants to save the owl – and also of values and ethics. But their different perspectives appeal to the same reality: in this case, the effects of logging on spotted owl habitat. And to the best of our (admittedly imperfect) knowledge, spotted owls’ habitat needs are far more selective than Standard and the timber industry has maintained, requiring habitat conditions largely restricted to old-growth forests for their nesting, roosting, and much of their foraging activities. The loss of this habitat due to logging has severely jeopardized the northern spotted owl’s chances for

continued reproductive success, and if unchecked may threaten the species with extinction.⁵⁸

Note also the wildlife Standard mentions in his testimony – raccoons, chipmunks, raven and deer. All of these species thrive in the fragmented, early successional-stage forest landscapes created by logging. In this sense, he is correct: the timber industry has in fact benefited these species, though at the expense of the spotted owl and others whose habitat needs involve old-growth forests. If we are sincere about valuing non-human species and their habitat needs, then we cannot conveniently privilege those that prosper from heavy human uses of nature.

One of the most bitterly-contested realities in the old-growth debate, referred to in both the Native Forest Council and the Oregon Project pamphlets, involves the issue of how much old-growth remains. According to the Native Forest Council version, the timber industry has – with the help of government agencies – ruthlessly logged “virgin” forests down to only five percent of what once existed in the United States. The other notes that logging is (as of the late 1980s, when the pamphlet was written) prohibited on over one-half of federal lands in Oregon and Washington, and at any rate has actually benefited wildlife. Are these tracts describing the same forest? In some ways, no: the ideal forest for the Native Forest Council is untouched by human hands, whereas the ideal forest for the Oregon Project is being carefully used to meet human needs. Here we are forced to confront the diversity of perspectives about the appropriate role of humans in nature.

But both of these ideal forests are justified by reference to a real forest, which gives us some basis to critically assess their moral claims. As suggested earlier, what the Native Forest Council tract refers to as “virgin” forests were indeed a major feature of the Pacific Northwest, but they were no permanent characteristic of the landscape, being shaped – and sometimes destroyed – by natural disturbances such as fire, disease, and windstorms, and extensive burning in areas inhabited by native

Americans. In other words, to suggest that Pacific Northwest forests were completely old-growth and were untouched before Europeans transformed them is to deny the historical dynamics of nature in the region. Old-growth forests have been a phase in the processes of succession and disturbance by nature and humans. In fact, I have already noted that one must apply a severely restrictive definition of old-growth forests to the Pacific Northwest to see such a drastic reduction in their extent. On the other hand, the Oregon Project's claim that 53 percent of the forest has been set aside from logging reflects some statistical sleight of hand, since it differs markedly from U.S. Forest Service statistics which suggest that logging was at that time prohibited on only 19 percent of the potentially harvestable national forests in the westside Pacific Northwest.⁵⁹ Reality thus calls both claims on the forest into question.

Though I have emphasized the interrelationship between ethics and ecological claims in the old-growth debate, the ecological dimension is only part of the story. There similarly exist many historical, economic, social, and political claims implicit in the positions of both sides which also require critical assessment. In addition, the very existence of these competing versions of what nature is and should be deserves scrutiny as well. No ideas are politically innocent; they are not merely ways people make sense of reality, but are often actively promoted to serve specific economic and other interests. A fuller critical examination of the ethics underlying ancient forest campaign and its alternatives would necessitate traveling down these paths as well.

Embracing the multiple realities out of which ethics emerge touches also on the problem of anthropocentrism. As I suggested above, one strong though often implicit moral thread running through much of the ancient forest campaign has been an assertion that we must move beyond anthropocentrism in our relations with nature. Yet some would argue that, since humans view nature from their own perspective, all ethics are anthropocentric, whether intentional or not.⁶⁰ On this view, the ancient forest campaign's call to embrace a non-anthropocentric ethic is rather naive; people

who truly wish to save nature, then, must find some way to reorient anthropocentrism so that it supports more environmentally-benign conduct.

Michael Pollan, for example, has argued for a “garden ethic” as a preferred substitute for the wilderness ethic he is rightly critical of. The garden ethic, Pollan argues, “would be frankly anthropocentric...we know nature only through the screen of our metaphors; to see her plain is probably impossible.”⁶¹ It is, nonetheless, based on a “broad and self-enlightened” conception of human self-interest. Pollan writes, “Anthropocentric as [one who holds such a conception] may be, he recognizes that he is dependent for his health and survival on many other forms of life.”⁶² The garden ethic echoes many of the values and concerns I noted above with groups which traditionally have fallen outside the mainstream of environmentalism, ranging from New York City Latinos to Oregon loggers. In Pollan’s version, for instance, the gardener “tends not to be romantic about nature,” “feels he has a legitimate quarrel with nature,” and “doesn’t take it for granted that man’s impact on nature will always be negative.”⁶³

The argument that anthropocentrism is inevitable, however, is weak. Clearly, Pollan and others are right that systems of ethics emerge out of human ideas, which I have stressed above—after all, they are how people make moral sense out of the world in which they live. So it is people who do the valuing; all ethics are, in other words, anthropogenic. But there is no necessity that these values mark human good as the ultimate criterion of worth; i.e., they needn’t be anthropocentric. For instance, people could choose—as many have done in the ancient forest campaign—to value the forest noninstrumentally in addition to its worth to humans.

Environmental philosophers have been quick to point out the logical problems with the assertion that anthropocentrism is inevitable. Warwick Fox, for example, has dubbed it the “perspectival fallacy,” and in a careful refutation, Val Plumwood has argued “The confusion here...is that because...valuations involve valuers’ perspectives

and individuating criteria, they must be reducible to valuers' interests and satisfactions."⁶⁴ In this sense, the perspectival fallacy can lead to some dangerous moral implications. Logically extended, it also becomes inevitable, for instance, for more advantaged peoples to neglect or even oppress less advantaged peoples unless these actions harmed those in power. In many cases, the very necessity of ethics is to provide a compelling reason to care about someone or something else when it may not benefit us in any important way; remember David Ehrenfeld's example of the Houston toad.

Yet it is one thing to suggest that anthropocentrism is not inevitable as an ethical basis for human conduct affecting Pacific Northwest forests, and quite another to argue that it is not feasible. Imagine, for example, that we are looking for an instrumental-value argument to protect old-growth forests. Such an argument would not be too difficult to imagine. Perhaps we should protect them for their value in reminding us of the sacred dimension of life as it unfolds through evolutionary history. I would find this moral perspective quite laudable; it is one that resonates in many of us. I am less sure, however, of how to demonstrate its importance to those who see very different forms of human benefit arising from forests—particularly the more tangible ones like jobs and revenues and cheap lumber. And even if we were to try to implement some expansive anthropocentric ethic to protect old-growth forests, we would still probably need to know whether, for instance, we were protecting enough habitat to maintain animal species associated with old-growth. Here the distinction between instrumental and intrinsic value is blurring: are we promoting old-growth forests for their own ends? For ours? For both? To take another example of a moral perspective that blurs instrumental and intrinsic-value arguments: what of a virtue-based approach, which asserts that people should protect old-growth forests not only to maintain habitat for non-human species and the like, but also because such behavior suggests desirable human qualities such as humility and moral

expansiveness?⁶⁵ These examples suggest that any adequate ethic to protect old-growth forests will not be purely instrumental; thus anthropocentrism is ruled out. But to call these ethics non-anthropocentric may suggest that undue stress is being placed on non-human benefits. It is worth emphasizing that non-anthropocentric ethics simply situate human needs and interests within a wider context—a context that takes seriously the notion that we are only one of many forms of life on Earth and thus have some obligation to share this planet.

Whatever the name we give this ethic, it must apply to a broader range of landscapes than the wilderness ethic does, for all the reasons I noted earlier. This may be another reason I am somewhat uncomfortable with Pollan's garden ethic: though he intends it to replace the wilderness ethic, it may simply shift our moral energies to different kinds of landscapes. Not all of nature is wilderness, to be sure; yet not all is a garden either. The forests of the Pacific Northwest involve a continuum of landscapes, from thoroughly humanized, even-aged tree plantations to barely humanized reaches of wilderness.

This range of landscapes is real and imagined; it is fully understood by studying forest classification maps of the region as well as by listening to the ideal forest landscapes envisioned by people like those who testified in the Eugene hearing. Like the wilderness and the garden, the old-growth forest and the managed forest arise out of multiple realities in conversation with some shared reality. Accordingly, the final implication I would like to draw out of this paradox is that we need a sense of ethics rooted in, but not limited to, place—which as Nicholas Entrikin's quotation at the outset suggests, is neither wholly objective nor subjective, but best understood from “points in between.” It will not do to come up with some ethic in the abstract, then apply it to Pacific Northwest forests. This would be an ethic from nowhere. The ethics of Jim Standard and F.J. Petock, of Susan Morgan and Barbara Kelley arise from their lived experience in the region, and they form the raw stuff out of which we can

craft some sense of that place. All the little details of their personal geographies, their interactions with the nature of the Pacific Northwest, matter. So do all the little details of the physical geography of the region: its natural and cultural fire history, climate, vegetation changes over the last century and since the last glacial maximum. All of this helps us get a sense of place, a very practical sense we can weave our moral frameworks around.

But attention to place need not restrict our scope of inquiry in trying to make moral sense of the relations between people and Pacific Northwest forests. Pacific Northwest forests are connected with other places through, for example, trade in lumber products. In one very important sense, they constitute a zone of production, feeding markets of consumption throughout the Pacific Rim. If we are to come to moral terms with human-environment relations affecting Pacific Northwest forests, we will have to look beyond the Pacific Northwest to the political and economic forces of industrial capitalism that have played such a key role in the transformation of these forests over the last century, and will certainly do so in this and other places in the future.⁶⁶ As an example, some studies suggest that demand to log Pacific Northwest forests will probably decline in the next century for largely economic reasons, when it becomes less profitable to log them relative to booming sites of production in the U.S. Southeast and elsewhere.⁶⁷ Other studies suggest that protecting old-growth forests in the Pacific Northwest without curtailing consumption of wood products in the United States will simply transfer ecological impacts to other forests in other countries.⁶⁸ The issue of Pacific Northwest forests demands sensitivity to that place, but it also demands our realization that the problems affecting these forests are symptoms of larger processes we also need to make some moral sense of. An ethics of place is not a spatially-limited ethics; it is a spatially-based ethics.

In summary: whose nature should we save? There is no one nature to save in the Pacific Northwest, since nature is always in part a social construction. There exist many differently-situated human practices and perspectives on the nature of these forests. Yet neither is there an infinite number of natures in the Pacific Northwest. The reality of these forests, and of interactions people have had with them over time, sets bounds on our ethics, which are meaningless if they fail to engage the real world.

I have suggested three broad ethical implications arising from this paradox. They involve the necessity of moral pluralism, the inevitability of an anthropogenic, though not necessarily anthropocentric, approach, and the need to root, but not limit, ethics to place. How exactly do these implications offer a different perspective on the ancient forest campaign? My contribution here is not to product but process; I have suggested some major landmarks to keep in sight, and others to avoid, as supporters and opponents of ancient forest protection discuss and debate the alternatives. All the critical details still need to be worked out. There remain plenty of questions, for instance, about how significant old-growth protection should be relative to timber production, and what kind of moral logic we should invoke in weighing these alternatives.

But the ensuing discussion must be understood, first and foremost, not as some matter of ecology or economics or management, but as a matter of ethics, which ties these very practical considerations to the values that inform our sense of right and wrong. By turning our attention to ethics, I do not suggest that the ensuing discussion will be any easier. But at least it will be more to the point, because we will have before us the central question: what should be our role in nature? We can no longer adequately answer this question by invoking the dogmatism and absolutism of particular views, such as wilderness-style environmentalism, nor the naive relativism inherent in admitting all views as equally valid. Nature, and our own many natures, all count here.

Conclusion

The spotted owl hearing held on that summer day in Eugene in August, 1989 was certainly not the last to consider whose nature we should save in the Pacific Northwest. I can imagine plenty of hearings to come on proposed management plans for those forests. Will environmentalists continue to cite their facts and figures about how little of the ancient forest remains? Will the timber industry and its supporters continue to cite their statistics to show how some proposed federal action will endanger the regional economy? I think not; in many ways, everyone seems to be weary of the battle they have been fighting over old-growth forests for the last decade. Yet there are even possibly larger battles looming over saving salmon and steelhead habitat on rivers running up and down the region.⁶⁹ Nature is contested terrain in the Pacific Northwest, and even if everyone gets tired of shouting over ancient forests, they are sure to find something else to fight over.

My picture of the future is not an especially rosy one, but it does suggest something of the larger role environmentalists can play in the region after they declare victory in the ancient forest campaign. What is critically lacking in the Pacific Northwest is moral leadership on these contested matters of human relations with nature. But this is precisely what environmentalists can potentially offer. As Timothy O'Riordan once said, environmentalism is much more than a set of policies; at heart its policy initiatives are "superficial manifestations of much more deeply-rooted values." More recently, Robin Grove-White has declared that environmentalism is a potentially new moral discourse for technological society.⁷⁰

Environmentalists cannot hope to provide any moral leadership, however, until they reexamine their own values, and consider earnestly the values of people who oppose their campaigns to save nature. The reason they need to do this is suggested throughout this volume. In the Pacific Northwest and elsewhere, it is clear that nature is far more complex, far more a projection of particular human ideas, than many of its

defenders would willingly admit. Such an assertion calls into question the moral authority of environmentalism, which can no longer ground its claims on some unitary nature existing outside of human values, aspirations, interests, and fears.

What I suggest here, in essence, is that it is time literally to reevaluate environmentalism, to regain a sense of its ethic. Environmentalists need to ask: what is it that we value deeply, that we care for? Too often, they have restricted their focus to wilderness, to the ancient forest, to nature remote and untouched by human hands. This view, however, is surely incomplete. What is to replace this notion?

We cannot hope that our answer to this question will have the same moral clarity as the ethic that has led so many thousands of Americans to support ancient forest protection. Accepting a pluralism of natures necessarily makes our ethics more contested and ambiguous; this is an inescapable part of the late twentieth century. As Zygmunt Bauman stresses in Postmodern Ethics:

The postmodern perspective offers more wisdom; the postmodern setting makes acting on that wisdom more difficult...What the postmodern mind is aware of is that there are problems in human and social life with no good solutions, twisted trajectories that cannot be straightened up.⁷¹

As complex and fragmented as this task may be, it nonetheless demands an (always preliminary) answer. And such an answer is possible. When we ask, "Whose nature?", we know that we are talking of more than differing ideas in our heads. What I have suggested here is that we need a perspective on ethics that takes objective as well as subjective realities seriously; otherwise, there will be no common ground we could possibly share. These realities are rooted in specific places; here I have focused on one small place called the Pacific Northwest. Making moral sense of these places involves embracing the paradox that they are both social constructions and realities that transcend social constructions.

The fundamental task for environmentalists, then, is not just to save nature. Environmentalists need to find and promote answers to the moral questions that

loom large in contemporary debates over nature. The next time there is a hearing in Eugene, environmentalists should leave most of their ecological ammunition home, and instead encourage people to address more fundamental issues, like: What kind of world do we want to live in? What kind of social and natural landscape would describe this world? What can we do, individually and collectively, to help move our little part of the world in this direction?

No one should expect this discussion to lead to easy consensus – the terrain of environmental battles is too fraught with divergent interests and unequal allocations of power to permit easy solutions. But this task of rethinking ethics will surely result in a more inclusive environmentalism, one uniting it with other social movements in a common moral cause: to help create a more liveable world for all of us, human and nonhuman alike.

Notes

¹. All testimony taken from hearing transcripts. See U.S.D.I., "Administrative Record to Proposed Determination of Threatened Status for the Northern Spotted Owl," Portland, Oregon: U.S. Fish and Wildlife Service, 1990.

². For book-length summaries of the spotted owl and old-growth debate, see Keith Ervin, Fragile Majesty: The Battle for North America's Last Great Forest (Seattle: The Mountaineers, 1989); William Dietrich, The Final Forest: The Battle for the Last Great Trees of the Pacific Northwest (New York: Simon and Schuster, 1992); David Seideman, Showdown at Opal Creek (New York: Carroll and Graf Publishers, Inc., 1993); Steven L. Yaffee, The Wisdom of the Spotted Owl: Policy Lessons for a New Century (Washington, D.C.: Island Press, 1994) .

³. For a recent sampling of perspectives involving six selected representatives of the timber industry, environmental groups, and others involved in the ancient forest debate, see Catherine L. Phillips et al., "Perspectives: Ancient Forests of the Pacific Northwest," The Northwest Environmental Journal 9, no. 1-2 (1993): 5-23. For a recent survey of public opinion on forest management issues, see Bruce Shindler, Peter List, and Brent S. Steel, "Managing Federal Forests: Public Attitudes in Oregon and Nationwide," Journal of Forestry 91, no. 7 (1993): 36-42. Other surveys suggest that support for the timber position, while a minority view, is not restricted to rural, timber-dependent areas; see Griggs-Anderson Research, "Forest Product Industry and the Spotted Owl Controversy Statewide Survey II," Survey conducted for The Oregonian, 1990; Cambridge Reports/Research International, "Survey Results on Forest Management Policy," Conducted for the Timber Industry Labor Management Committee, 1991; Petts Bennett and Associates, "Telephone Survey of Public Opinion in Oregon, Washington, and Northern California," Portland, Oregon: Bennett, Petts, and Associates, 1993.

⁴. For a summary of the wise use movement written by one of its founders, see Ron Arnold, ed., The Wise Use Agenda (Bellevue, Washington: Center for the Defense of Free Enterprise, 1988) . Some sense of the influence of the wise use philosophy on ordinary people involved in timber battles is presented in Ray Raphael, More Tree Talk: The People, Politics, and Economics of Timber (Washington, D.C.: Island Press, 1994) . For critical context on the movement, see John Echeverria and Raymond B. Eby, ed., Let the People Judge: Wise Use and the Private Property Rights Movement (Washington, D.C.: Island Press, 1994) , as well as relevant sections in Carl Deal, The Greenpeace Guide to Anti-Environmental Organizations (Berkeley: Odonian Press, 1993) .

⁵. For one book-level inquiry focusing on ethics and Pacific Northwest forests, see Douglas E. Booth, Valuing Nature: The Decline and Preservation of Old-Growth Forests (Lanham, Maryland: Rowman & Littlefield Publishers, Inc., 1994) . At a more general level, the question of ethics in forest management has received considerable attention recently. For example, a good deal of discussion arose among the Society of American Foresters over the proposed inclusion of a "land ethic" statement in their professional code; see James E. Coufal, "The Land Ethic Question," Journal of Forestry 87, no. 6 (1989): 22-24; Robert T. Perschel, "Pioneering a New Human/Nature Relationship," Journal of Forestry 89, no. 4 (1991): 18-28; Holmes Rolston and James Coufal, "A Forest Ethic and Multivalued Forest Management," Journal of Forestry 89, no. 4 (1991): 35-40; R.S. Craig, "Land Ethic Canon Proposal: A Report from the Task Force," Journal of Forestry 90, no. 8 (1992): 40-41. More recently, the April 1993 edition of the Journal of Forestry was devoted primarily to questions of ethics that arise in forestry.

⁶. Bernard Williams, Morality: An Introduction to Ethics (Cambridge: Cambridge University Press, 1972) .

⁷. J. Nicholas Entrikin, The Betweenness of Place: Towards a Geography of Modernity (Baltimore: The Johns Hopkins University Press, 1991), 5. Robert Sack is another geographer who asserts that moral questions are properly resolved by recourse to the place-specific geographies of daily life; see Robert David Sack, Place, Modernity, and the Consumer's World: A Relational Framework for Geographical Analysis (Baltimore: The Johns Hopkins University Press, 1992) .

⁸. Cathy Whitlock, "Vegetational and Climatic History of the Pacific Northwest During the Last 20,000 Years: Implications for Understanding Present-Day Biodiversity," Northwest Environmental Journal 8, no. 1 (1992): 5-28.

⁹. Jerry F. Franklin, "Pacific Northwest Forests," North American Terrestrial Vegetation, ed. Michael G. Barbour and William D. Billings. (New York: Cambridge University Press, 1988) 103-130; Thomas A. Spies and Jerry F. Franklin, "Old Growth and Forest Dynamics in the Douglas-Fir Region of Western Oregon and Washington," Natural Areas Journal 8, no. 3 (1988): 190-201; Peter D.A. Teensma, John T. Rienstra, and Mark A. Yeiter, Preliminary Reconstruction and Analysis of Change in Forest Stand Age Classes of the Oregon Coast Range from 1850 to 1940. (Portland, Oregon: Bureau of Land Management Technical Note OR-9., 1991); James K. Agee, Fire Ecology of Pacific Northwest Forests (Washington, D.C.: Island Press, 1993) .

¹⁰. Larry D. Harris, The Fragmented Forest: Island Biogeography Theory and the Preservation of Biotic Diversity (Chicago: The University of Chicago Press, 1984); Elliot A Norse, Ancient Forests of the Pacific Northwest (Washington, D.C.: Island Press, 1990); Douglas E. Booth, "Estimating Prelogging Old-Growth in the Pacific Northwest," Journal of Forestry 89, no. 10 (1991): 25-29; Peter H. Morrison et al., Ancient Forests of the Pacific Northwest: Analysis and Maps of Twelve National Forests (Washington, D.C.: The Wilderness Society, 1991) . The timber industry and its supporters, however, often dispute these figures, arguing that natural dynamics and Native American land use resulted in far less old-growth than is generally assumed. See, for instance, the special March/April 1994 issue of Evergreen Magazine.

¹¹. For general reviews, see E. Charles Meslow, Chris Maser, and Jared Verner, "Old-Growth Forests as Wildlife habitat," Transactions of the 46th North American Wildlife and Natural Resources Conference, (Washington, D.C.: Wildlife Management Institute, 1981) 329-35; Larry D. Harris, Chris Maser, and A.W. McKee, "Patterns of Old-Growth Harvest and Implications for Cascades Wildlife," Transactions of the 47th North American Wildlife and Natural Resources Conference, (Washington, D.C.: Wildlife Management Institute, 1982) 374-92; Franklin, Pacific Northwest Forests; Spies and Franklin, "Old-Growth and Forest Dynamics"; Norse, Ancient Forests.

¹². For an historical background, see William G. Robbins, "The Social Context of Forestry: The Pacific Northwest in the Twentieth Century," The Western Historical Quarterly 16, no. 4 (1985): 413-427; Carlos A. Schwantes, The Pacific Northwest: An Interpretive History (Lincoln, Nebraska: University of Nebraska Press, 1989); Michael Williams, Americans and Their Forests: A Historical Geography (Cambridge: Cambridge University Press, 1989) . For an attempt at quantifying Native American uses, see Booth, Valuing Nature.

¹³. Brian Wall, "Log Production in Washington and Oregon: An Historical Perspective," Pacific Northwest Forest and Range Experimental Station, 1972. A major study for Oregon, for instance, forecast a sharp decline through the remainder of the century due to cutting far in excess of regeneration John H. Beuter, K. Norman Johnson, and H. Lynn Scheurmann, Timber for Oregon's Tomorrow (Corvallis: Oregon State University Forest Research Laboratory, 1976) . For more recent figures suggesting the overcutting of national forests, see Jeffrey T. Olson, Pacific Northwest Lumber and Wood products: An Industry in Transition (Washington, D.C.: The Wilderness Society, 1988) .

¹⁴. U.S.D.A., An Analysis of the Timber Situation in the United States: 1989-2040 (Fort Collins, Colorado: Rocky Mountain Forest and Range Experiment Station, 1990) .

¹⁵. Meslow, Maser, and Verner, "Old-Growth Forests as Wildlife Habitat."

¹⁶. See, for example, John Sessions, Timber for Oregon's Tomorrow: The 1989 Update (Corvallis, Oregon: Oregon State University Forestry Publications Office, 1991) .

- ¹⁷. The timber industry position is found in Northwest Forest Resource Council, "Response to the Oregon Delegation Questions: National Forest and Public Land Management Meeting," unpublished report, 1989. For the latter estimate, see Norse, Ancient Forests; Morrison et al., Ancient Forests.
- ¹⁸. U.S.D.A.-U.S.D.I., "Forest Ecosystem Management: An Ecological, Economic, and Social Assessment," Report of the Forest Ecosystem Assessment Team, 1993.
- ¹⁹. J.W. Thomas et al., "Viability Assessments and Management Considerations for Species Associated with Late-Successional and Old-Growth Forests of the Pacific Northwest," Portland, Oregon: U.S.D.A. Forest Service, 1993.
- ²⁰. Booth, Valuing Nature, 133.
- ²¹. Dietrich, Final Forest, 209-211.
- ²². Olson, Pacific Northwest Lumber; Wilderness Society, End of the Ancient Forests: A Report on National Forest Management Plans in the Pacific Northwest (Washington, D.C.: The Wilderness Society, 1988); Morrison et al., Ancient Forests.
- ²³. Seattle Audubon vs. Evans, 771 F. Supp. 1081 (W.D. Washington 1991).
- ²⁴. U.S.D.I., "Determination of Threatened Status for the Northern Spotted Owl; Final Rule," Federal Register 55, no. June 26 (1990): 26114-194.
- ²⁵. U.S.D.I., "1990 Status Review: Northern Spotted Owl (Strix occidentalis caurina)," U.S. Fish and Wildlife Service, 1990.
- ²⁶. U.S.D.I., "Determination of Critical Habitat for the Northern Spotted Owl; Final Rule," Federal Register 57, January 15 (1992): 1796-1838.
- ²⁷. U.S.D.A.-U.S.D.I., Forest Ecosystem Management; U.S.D.A.-U.S.D.I., Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Species Within the Range of the Northern Spotted Owl (Portland, Oregon: U.S. Forest Service and Bureau of Land Management, 1994) .
- ²⁸. Dietrich, Final Forest, 77.
- ²⁹. Some recent accounts have differentiated between the intrinsic value people convey upon nature, and that which exists in nature irrespective of whether people recognize it; yet there is no agreement as to appropriate terms for each. See for example Susan J. Armstrong and Richard G. Botzler, ed., Environmental Ethics: Divergence and Convergence (New York: McGraw-Hill, Inc., 1993), 53; Joseph R. Des Jardins, Environmental Ethics: An Introduction to Environmental Philosophy (Belmont, California: Wadsworth Publishing Co, 1993), 144-147.
- ³⁰. Warwick Fox, Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism (Boston: Shambhala, 1990); Max Oeschlaeger, The Idea of Wilderness from Prehistory to the Age of Ecology (New Haven, Connecticut: Yale University Press, 1991) .
- ³¹. René Dubos, A God Within (New York: Charles Scribner's Sons, 1972); Bryan G. Norton, "Environmental Ethics and Weak Anthropocentrism," Environmental Ethics 6, no. (1984): 131-148; Carolyn Merchant, "Environmental Ethics and Political Conflict: A View from California.," Environmental Ethics 12, no. 1 (1990): 45-68.
- ³². For a sample biocentric account, see Paul Taylor, Respect for Nature: A Theory of Environmental Ethics (Princeton: Princeton University Press, 1986) . For elaboration of ecocentrism, see J. Baird Callicott, In Defense of the Land Ethic: Essays in Environmental Philosophy (Albany, N.Y.: State University of New York Press, 1989) .
- ³³. Support for non-anthropocentric ethics can be found in, for example, Aldo Leopold, A Sand County Almanac (London: Oxford University Press, 1949); Arne Naess, "The Shallow and the Deep,

Long-Range Ecology Movement," Inquiry 16, no. (1973): 95-100; Bill Devall and George Sessions, Deep Ecology: Living as if Nature Mattered (Salt Lake City: Gibbs M. Smith, Inc, 1985); Robin Attfield, A Theory of Value and Obligation (London: Croom Helm, 1987); Holmes Rolston, Environmental Ethics: Duties to and Values in the Natural World (Philadelphia: Temple University Press, 1988); Lawrence E. Johnson, A Morally Deep World: An Essay on Moral Significance and Environmental Ethics (Cambridge: Cambridge University Press, 1991) . One application to forestry is found in Rolston and Coufal, "A Forest Ethic." Others, however, are far less certain that non-anthropocentric ethics are necessary or possible; examples include John Passmore, Man's Responsibility for Nature: Ecological Problems and Western Traditions (New York: Charles Scribner's Sons, 1974); Kristin Schrader-Frechette, Environmental Ethics (Pacific Grove, California: Boxwood Press, 1981); Bryan G. Norton, Why Preserve Natural Variety? (Princeton: Princeton University Press, 1987); Eugene C. Hargrove, Foundations of Environmental Ethics (Englewood Cliffs, New Jersey: Prentice-Hall, 1989) .

³⁴. David Ehrenfeld, "The Conservation of Non-Resources," American Scientist 64 (1976): 648-656.

³⁵. Leopold, Sand County Almanac, 204.

³⁶. Two other essays in this volume offer critical elaboration of some of these key ideas. On the relationship between the notion of stability in nature and the Clementsian paradigm of climax vegetative communities, see the essay by Michael Barbour. On the historically-significant connection between virgin forests and the virgin woman, see Carolyn Merchant's essay.

³⁷. For a history of the transformation of American forests, see Williams, Americans and Their Forests.

³⁸. For a fuller discussion, see Cronon's essay.

³⁹. Yi-Fu Tuan has demonstrated how absolutely fundamental the sense of the aesthetic is to the relation between nature and culture; see Morality and Imagination: Paradoxes of Progress (Madison: The University of Wisconsin Press, 1989), and Passing Strange and Wonderful: Aesthetics, Nature, and Culture (Washington, D.C.: Island Press, 1993) .

⁴⁰. Michael Pollan, Second Nature: A Gardener's Education (New York: Atlantic Monthly Press, 1991) .

⁴¹. *Ibid.*, 177.

⁴². *Ibid.*, 188.

⁴³. *Ibid.*, 189.

⁴⁴. At any rate, the idea of wilderness and the possibility of fuller metaphors of nature has been carefully explored elsewhere; see for instance Oeschlaeger, Idea of Wilderness; David B. Rothenberg, ed., Wild Ideas (Minneapolis: University of Minnesota Press, 1995) .

⁴⁵. Barbara Deutsch Lynch, "The Garden and the Sea: U.S. Latino Environmental Discourses and Mainstream Environmentalism," Social Problems 40, no. 1 (1993): 108-124.

⁴⁶. *Ibid.*, 109.

⁴⁷. The diversity of cultural practices and perspectives related to the environment is a major theme in Giovanna Di Chiro's essay on environmental justice in this volume.

⁴⁸. For a fuller discussion of the implications of knowing nature through labor, see Richard White's essay elsewhere in this volume.

⁴⁹. Gordon H. Orians and Jerry F. Franklin, "'New Forestry' and the Old-Growth Forests of Northwestern North America: A Conversation with Jerry Franklin," The Northwest Environmental Journal 6, no. 2 (1990): 445-461. For further discussion of New Forestry, see Jerry F. Franklin, "Scientific Basis for New Perspectives in Forests and Streams," Watershed Management: Balancing Sustainability

and Environmental Change, ed. Robert J. Naiman. (New York: Springer-Verlag, 1992) 25-72; F.J. Swanson and Jerry F. Franklin, "New Forestry Principles from Ecosystem Analysis of Pacific Northwest Forests," Ecological Applications 2, no. 3 (1992): 262-274; D.S. Debell and R.O. Curtis, "Silviculture and New Forestry in the Pacific Northwest," Journal of Forestry 91, no. 12 (1993): 25-30; Jerry F. Franklin, "Lessons from Old-Growth: Fueling Controversy and Providing Direction," Journal of Forestry 91, no. 12 (1993): 10-13.

⁵⁰. Orians and Franklin, "'New Forestry'"; J.N. Long and S.D. Roberts, "Growth and Yield Implications of a "New Forests" Silvicultural System," Western Journal of Applied Forestry 7, no. (1992): 6-9; William C. McComb, Thomas A. Spies, and William H. Emmingham, "Douglas-Fir Forests: Managing for Timber and Mature-Forest Habitat," Journal of Forestry 91, no. 12 (1993): 31-42.

⁵¹. U.S.D.A.-U.S.D.I., Forest Ecosystem Management, VI-5.

⁵². A good sample of their divergent opinions is found in the April 1994 edition of the Journal of Forestry, devoted exclusively to Option 9 and its alternatives.

⁵³. Roderick Nash has drawn a strong association between abolitionism and environmental ethics; see The Rights of Nature: A History of Environmental Ethics (Madison: University of Wisconsin Press, 1989).

⁵⁴. For instance, G.E. Moore's well-known "naturalistic fallacy" discounts the possibility of analyzing moral judgements in terms of their factual basis; see G.E. Moore, Principia Ethica (New York: Cambridge University Press, 1903) . A discussion of Moore's position is provided by Geoffrey Sayre-McCord, "Introduction: The Many Moral Realisms," Essays on Moral Realism, ed. Geoffrey Sayre-McCord. (Ithaca, New York: Cornell University Press, 1988) .

⁵⁵. For more discussion on relativism, see Steven Lukes, "Relativism: Cognitive and Moral," Essays in Social Theory, (New York: Princeton University Press, 1977); Robert L. Arrington, Rationalism, Realism, and Relativism (Ithaca, New York: Cornell University Press, 1989); Michael Krausz, ed., Relativism (Notre Dame, Indiana: University of Notre Dame Press, 1989) . For an interesting discussion from a contemporary pragmatist position, see Jeffrey Stout, Ethics after Babel: The Languages of Morals and Their Discontents (Boston: Beacon Press, 1988).

⁵⁶. In environmental ethics, moral pluralism more properly refers to the assertion that multiple moral principles must necessarily be invoked to inform humankind's conduct affecting other humans, species, ecosystems, etc. See Christopher Stone, Earth and Other Ethics: The Case for Moral Pluralism (New York: Harper and Row, 1987); J. Baird Callicott, "The Case Against Moral Pluralism," Environmental Ethics 12, no. Summer (1990): 99-124; James C. Anderson, "Moral Planes and Intrinsic Values," Environmental Ethics 13, no. Spring (1991): 49-58; Gary E. Varner, "No Holism Without Pluralism," Environmental Ethics 13, no. Summer (1991): 175-179; Peter S. Wenz, "Minimal, Moderate, and Extreme Moral Pluralism," Environmental Ethics 15, no. 1 (1993): 61-74. Here I extend this usage to embrace multiple subjects as well as objects. For a fuller theoretical discussion of the realist position in social theory and moral philosophy, see Sabina Lovibond, Realism and Imagination in Ethics (Oxford: Basil Blackwell, 1983); Sean Sayers, Reality and Reason: Dialectic and the Theory of Knowledge (Oxford: Basil Blackwell, 1985); Geoffrey Sayre-McCord, ed., Essays on Moral Realism (Ithaca, New York: Cornell University Press, 1988); Roy Bhaskar, Reclaiming Reality (London: Verso, 1989); David O. Brink, Moral Realism and the Foundations of Ethics (Cambridge: Cambridge University Press, 1989)

⁵⁷. For general discussions of this point, see Daniel B. Botkin, Discordant Harmonies: A New Ecology for the Twenty-First Century (New York: Oxford University Press, 1990); Stuart L. Pimm, The Balance of Nature? Ecological Issues in the Conservation of Species and Communities. (Chicago: The University of Chicago Press, 1991) .

⁵⁸. J.W. Thomas et al., A Conservation Strategy for the Northern Spotted Owl (Portland, Oregon: Interagency Committee to Address the Conservation of the Northern Spotted Owl, 1990); U.S.D.I., "1990 Status Review: Northern Spotted Owl (*Strix occidentalis caurina*)," U.S. Fish and Wildlife Service, 1990; Jonathan Bart and Eric D. Forsman, "Dependence of Northern Spotted Owl *Strix occidentalis caurina* on Old-Growth Forests in the Western USA," Biological Conservation 62, no. (1992): 95-100; J.A. Blakesley, A.B. Franklin, and R.J. Gutierrez, "Spotted Owl Roost and Nest Site Selection in Northwestern California," Journal of Wildlife Management 56, no. 2 (1992): 388-392; Roland H. Lamberson et al., "A Dynamic Analysis of Northern Spotted Owl Viability in a Fragmented Forest Landscape," Conservation Biology 6, no. 4 (1992): 505-512; U.S.D.I., "Draft Recovery Plan for the Northern Spotted Owl," U.S.D.I. Fish and Wildlife Service Spotted Owl Recovery Team, 1992; Susan Harrison, Andy Stahl, and Daniel Doak, "Spatial Models and Spotted Owls: Exploring Some Biological Issues Behind Recent Events," Conservation Biology 7, no. 4 (1993): 950-953; J.W. Thomas et al., "Viability Assessments and Management Considerations for Species Associated with Late-Successional and Old-Growth Forests of the Pacific Northwest," Portland, Oregon: U.S.D.A. Forest Service, 1993; Thomas et al., Viability Assessments.

⁵⁹. The forest statistics I use here are taken from U.S.D.A., Analysis of the Timber Situation.

⁶⁰. See, for instance, Anthony Weston, "Beyond Intrinsic Value: Pragmatism in Environmental Ethics," Environmental Ethics 7, no. 4 (1985): 321-339; Reiner Grundmann, "The Ecological Challenge to Marxism," New Left Review 187 (1991): 103-119; Janna Thompson, "A Refutation of Environmental Ethics," Environmental Ethics 12, no. 2 (1991): 147-160.

⁶¹. Pollan, Second Nature, 191.

⁶². *Ibid.*, 192.

⁶³. *Ibid.*, 192-3.

⁶⁴. Fox, Transpersonal Ecology; Val Plumwood, "Ethics and Instrumentalism: A Response to Janna Thompson," Environmental Ethics 13, no. 2 (1991): 139-149.

⁶⁵. For some discussion of the virtue approach to environmental ethics, see Geoffrey B. Frasz, "Environmental Virtue Ethics: A New Direction for Environmental Ethics," Environmental Ethics 15, no. 3 (1993): 259-27.

⁶⁶. Williams, Americans and Their Forests; William G. Robbins, Lumberjacks and Legislators: Political Economy of the U.S. Lumber Industry, 1890-1941 (College Station, Texas: Texas A&M University Press, 1982); John Bellamy Foster, "Capitalism and the Ancient Forest," Monthly Review 43, no. 5 (1991): 1-16.

⁶⁷. U.S.D.A., Analysis of the Timber Situation.

⁶⁸. See, for instance, John M. Perez-Garcia, "Global Forestry Impacts of Reducing Softwood Supplies from North America," Center for International Trade in Wood Products, 1993; Roger A. Sedjo, "Global Consequences of U.S. Environmental Policies," Journal of Forestry 91, no. 4 (1993): 19-21.

⁶⁹. For some background on human impacts on anadromous fish runs in the region, see Christopher A. Frissell, "Topology of Extinction and Endangerment of Native Fishes in the Pacific Northwest and California (U.S.A.)," Conservation Biology 7, no. 2 (1993): 342-354.

⁷⁰. Timothy O'Riordan, Environmentalism (London: Pion, 1981), ix; Robin Grove-White, "Environmentalism: A New Moral Discourse for Technological Society?," Environmentalism: The View from Anthropology, ed. Kay Milton. (London: Routledge, 1993), 18-30.

⁷¹. Zygmunt Bauman, Postmodern Ethics (Oxford: Blackwell Publishers, 1994), 245.