The following is an un-edited introduction to a volume edited by Jill Ker Conway, Kenneth Keniston, and Leo Marx, called Earth, Air, Fire, Water: Humanistic Studies of the Environment, which will be published in 1999 or 2000 by the University of Massachusetts Press, Amherst, MA. The volume contains 13 essays divided into three sections: Historical Studies, Social Studies, and The Question of Modernity. The table of contents is appended, followed by the introduction to the entire volume.

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INTRODUCTION Earth, Air, Fire, Water: Humanistic Studies of the Environment

5/12/97

The New Environmentalisms

Jill Ker Conway, Kenneth Keniston, Leo Marx

Fifty years after the atomic bomb was dropped on Hiroshima the conviction of environmental crisis to which it gave rise has intensified. The first use of a nuclear weapon in 1945 made humanity aware that it had acquired the power to inflict irremediable damage on the biosphere, a destructive power that might even lead to human self-extinction. As it turned out, in fact, Hiroshima was only the first in a series of events that seemed to portend an ecological apocalypse.

In the aftermath of Hiroshima, the intellectual results of this mounting anxiety were immediate, profound, and lasting. In the academy the first members of what would become a large and steadily growing international cohort of scholars -- most of them scientists -- began to work on problems of nuclear contamination. But in subsequent years the range of fearful ecological problems was enlarged by the discovery of such new (or hitherto undetected) hazards as the

potential "nuclear winter" phenomenon; global climate change; the depletion of the ozone layer; and the accelerating rate of species extinction. With each discovery an alarm was sounded, and the worldwide fear of an impending ecological disaster intensified. By now that fear has been extended to the damaging effects of many everyday technologies, and we see harm lurking in such innocuous sites as the local garden shop, with its lawn fertilizers and gas-powered mowers, or the supermarket with its array of detergents and chemically improved meats and vegetables.

Responding to these fears, a set of new environmentalisms has emerged -- movements, arguments, and analyses that target the new, or newly identified, environmental problems of the late twentieth century. To be sure, men and women were concerned with preserving their environment long before Hiroshima. But in the last decades, initiated by the use and testing of nuclear weapons, impelled by books like Rachel Carson's Silent Spring, embodied in local groups like the Love Canal activists, and highlighted by disasters like Chernobyl, Bhopal, and Three Mile Island, armed with regulatory power through governmental bodies like the Environmental Protection Agency, the new environmentalisms have acquired unprecedented public support and political importance. Despite their major differences, these environmentalisms share a concern with today's apparently unprecedented and accelerating rate of environmental degradation.

To cope with this degradation, the prevailing assumption both within and without the academy has been that for self-evident reasons it is scientists who bear the major intellectual responsibility. When we think of the forms of environmental decline calling for most urgent attention -- eroding soils, shrinking forests, deteriorating rangelands, expanding deserts, acid rain, drained aquifers, stratospheric ozone depletion, the build-up of greenhouse gases, air pollution, poisoned water supplies, and the loss of biological diversity -- it seems only logical that scientists should be the people mobilized to tackle these problems.

It also seems obvious that the human sciences, the term we use to embrace the humanities and humanistic (non-quantified) social sciences, have little to contribute to our understanding of these threats to the biosphere. Until recently, humanists themselves accepted this popular assumption. What can Homer tell us about nuclear winter? How can students of language help halt the destruction of forests? Surely only scientific experts are capable of discovering a hazard like the greenhouse effect. And clearly only scientists can monitor it accurately, and thus, perhaps, devise effective remedial measures. Where else should we look but to scientific expertise for the resolution of problems resulting from the interaction between the peoples of modern societies and nonhuman nature?

And yet, having said that, it is the seemingly self-evident nature of this response that should give us pause. As cultural historians have often demonstrated, the more obviously self-evident a human response to change seems, the more likely it is to embody an unconscious, or largely unconsidered, reflex of the prevailing collective mentality. This is not to imply that all such "common sense" responses are skewed or misleading, but they often are, and in the case of environmental degradation there are good reasons for skepticism about the humanists' failure to engage with the problem. Notice, for example, the heavy burden of ideological assumption carried by the heavily scientific, technological names we routinely use to designate environmental problems. (Few kinds of behavior are more revelatory of cultural bias than naming practices.) Each of the labels mentioned -- eroding soils, shrinking forests, acid rain .... -- designates an environmental problem by naming its chief biophysical symptom. Missing entirely are the simple, short everyday words by which people actually refer to their biophysical world -- earth, air, fire, water. The labels convey no hint of human agency. They seem to convey that such forms of environmental deterioration are spontaneously occurring "natural" (i.e., non-human) biophysical processes. Such a designation places the entire process of environmental deterioration within the realm of expertise of scientists who study natural phenomena.

Once we examine them critically, these names are highly misleading because, although they locate such phenomena as acid rain or soil erosion in the biophysical realm, not one of them is in fact wholly attributable to the operation of natural (non-human) processes. Each, in fact, has its origin in human behavior, in complex socio-economic practices with long histories. So, although

it is not impossible, it is highly unlikely that any of them could be corrected or compensated for, by a simple technological fix. In fact, these nature- and science-oriented names mask the fact that such phenomena are forms of damage to the environment that cannot be ameliorated or corrected without extensive long-term changes in social behavior -- such as prevailing beliefs and attitudes toward the interaction of humanity with nature. Amelioration does not require exclusively scientific knowledge, but rather changes based upon law and public policy, on institutional structures and practices, on habits of consumption, and countless other facets of daily life.

So, to understand, or to devise effective solutions for today's environmental threats, we must locate them within their larger historical, societal, and cultural setting. Only when they are placed in this context will they be recognizable for what they are: immediate, short-term, partial manifestations of the increasingly heavy burden that modern urban industrial societies place upon the finite capacities and resources of the biosphere. The root problem of this demand is human, not physical, not natural -- although, of course, scientists, engineers, and other technical experts can help us chart its dimensions. Once we have framed the issues in this way we can see that many, perhaps most, of our most pressing current environmental problems come from systemic socio-economic and cultural causes. So their solutions lie far beyond the reach of scientific or technical knowledge -- and, to answer an earlier, seemingly rhetorical question -- all the disciplines which elucidate human behavior and the functioning of social and cultural systems are essential for the understanding of environmental issues, and for devising effective approaches to their amelioration.

This book, then, is an effort at correcting our deceptive nomenclature, by locating ecological problems in the behavior of human beings -- in the human institutions, beliefs, and practices which mediate between humankind and that obscure but beautiful non-human world which we call "nature". It opens with a section devoted to the elements and the way humans have understood them in past times. It continues with a section devoted to social institutions and the ways in which we can learn from current and past efforts to understand the interaction between man and nature. The concluding section analyzes the culture of modernity and the ways in which the human imagination has changed in response to the arrival of modern technology -- for it is this change which has contributed most significantly to our distancing of the human from the natural phenomena we now consider to be the exclusive concern of scientists.

As a framework for the examples of humanistic studies of environmental thinking which make up these three sections, we lay out some major concerns which any humanist proposing to work on environmental subjects will encounter. These arise from critical oppositions inherent in current thinking about humans and their interaction with nature.

The "Constructed" and the "Real" Environment

One of the first questions confronting humanists who work on environmental problems is: what constitutes reliable knowledge of the natural world? Or, put differently, the problem is knowing how to steer a reasonable course between two equally extreme viewpoints: naive positivism (or realism) and all-embracingsocial constructionism (or the assertion that what we call "nature" is merely a figment of our cultural imagination).

The positivistic position assumes that reliable, unmediated knowledge of "nature" or the "environment" is obtainable by means of direct senseperception, and that it may then simply be added to the cumulative findings of science. Those findings are assumed to constitute a true picture of the world. This picture is not considered problematic or seriously influenced -- unless based on erroneous data -- by the unique position of the observer, his or her outlook, history, or culture. Nature, environment, and the world are a transparently accessible domain of incontrovertible fact.

Those who hold the second, constructionist view regard what we call "reality" as in actuality a kind of narrative, or "text", that we construct about our surroundings. Such narratives are in some measure unique to each individual, and they invariably are the distinctive products of particular

historical contexts, cultures, and social groups with particular interests -- especially national, economic, class, racial, or gender interests. Thus the notion of the "environment", or "nature", as a transhuman reality disappears; it is replaced by a variety of interpretative lenses through which individuals convince themselves (falsely, of course) that they are seeing something beyond -- not reflective of -- their subjectivity, or the distinctive positions they occupy in specific social and cultural settings. In particular, the radical social constructionists deny the hegemony of scientific knowledge as the only truly reliable -- or, as they say, "privileged" -- conception of the world. Science is thus merely one among many lenses on the world, a lens with no justifiable claim as a source of superior knowledge. To the constructionists the humanists' task is to understand, analyze, and deconstruct discourse about nature and our environmental dilemma, and in the process to challenge the illusion that we have access to the ostensibly "real", knowable environment.

To state these two positions in this extreme, caricatured form is to underscore the latent contradiction that often makes itself felt in humanistic inquiry into environmental issues. Concepts like environment, nature, wilderness, are often assumed to be constructs whose contours are defined less by "objective" reality than by the interests, history, and other presuppositions of the observer. Thus, many recent humanistic studies of the "environmental crisis" have been studies of writings about the crisis, or studies of definitions and "constructions" of the crisis, rather than studies of the ways that human beings, through their culturally- and

historically-influenced behaviors, help to aggravate or ameliorate the condition of the biophysical world that surrounds them.

The familiar parable of the blind men trying to describe the elephant, each insisting that a leg, a trunk, or tusk is the whole of the beast, is a useful analogy for our own thinking. We agree with the "social constructionists" who insist that the world -- and especially large interpretive concepts about the world like "environment", "wilderness", and "nature" -- is invariably seen from a particular vantage point and through a particular lens constituted by history, culture, and individual idiosyncrasy. There are indeed many "natures", "environments", "ecologies", and "wildernesses", as scholars insist.1 But the parable of the elephant derives its ultimate meaning precisely from the fact that there is an elephant -- a real elephant -- which each blind man only partially describes.

As human beings and adherents of a culture, therefore, we have no way of seeing other than through the lens of our own culture, history, and personality. But the fact that we each see the world from a distinct context and a unique perspective in no way denies the world's existence; on the contrary, only if there is a world to be seen through our different lenses does the act of perception make any sense. Analogously, arguments over the meanings of "nature", or of "wilderness", in no way deny the existence of a non-human biophysical reality over whose

characteristics we may argue. In fact the existing non-human biophysical reality constitutes a large part -- usually most -- of what people perceive, and what they disagree about.

We share, then, the belief of most natural scientists that "the environmental crisis" is real, that it is global as well as local, and that science gives us an especially reliable and useful -- though not unique -- way of understanding the crisis. But of course the natural sciences make no claim to a deep or sophisticated understanding of the dimensions of life that derive from human behavior, culture, personality, social organization, or history. Quite the contrary: the sciences most engaged in the study of the environment are mute when it comes to the human (or "anthropogenic") sources of recent environmental problems. Thus computer models of the impact of greenhouse gases on global climate often include projections of the increases in CO2 emissions likely to result from human activities over the course of the next century. But the question of why or whether humans are seen as likely to increase CO2 emissions is not one that atmospheric scientists try to address. To explore that question, the methods of humanists and social scientists are needed. Several years [how long??] after a major international effort to integrate scientific studies of the global environment (The International Geosphere-Biosphere Programme: A Study of Global Change, or IGBP) was organized, a "Human Factors" group was finally established -- as if in belated recognition that, after all, the activities of people are at the root of virtually all the world's most pressing environmental problems.

Another reason to doubt the exclusive authority of the scientific viewpoint is that scientists rarely achieve unanimity on environmental issues. They can differ among themselves as much as non-scientists do about the meanings, implications, causes, and remedies of environmental problems. Scientific knowledge of the environment tends to be new, hence contested: it is rarely established, "textbook" knowledge. Like all frontier knowledge in science, knowledge of the environment is thus peculiarly susceptible to conflicting interpretations, alternative forecasts, and disputed remedies.2 In analyzing these conflicts it is important, though by no means sufficient, to acknowledge their cultural origins -- their roots in differing perceptions, politics, interpretations, interests, and histories. As with all contested, "frontier" knowledge in science, moreover, continued exploration and lively debate also is needed, for that alone can transform contested knowledge into scientifically established, if always open to reexamination, "textbook" truths.

We acknowledge the importance -- more perhaps than most humanistic inquiries -- of scientific findings. We accept their legitimate claim to special if limited authority and usefulness, but at the same time we stress the obligation of humanists to study the ways that human beings actually interact with -- not merely talk about -- nonhuman nature. Humanists and humanistically inclined social scientists have a double task. On the one hand, humanists can (and do) contribute to an understanding of environmental discourse -- the ways that ideas about nature (including scientific ideas) embody extra-scientific interests and presuppositions; the historical origins and shifting meanings of central concepts (like "nature", "environment", and "wilderness"); the role

of the socio-economic and political context, culture, ideology, and history in forming the lenses through which we perceive and interpret the biophysical world.

At the same time, humanists and their social scientist partners have a second but often neglected task: to study the precise ways that culturally- and psychologically- patterned behavior contributes to the despoliation of the environment, and to the possibility -- or impossibility -- of alleviating it. It is important, for example, to understand the steady, worldwide growth of "consumerism", its changing character over time and across cultural boundaries, and its relationship to today's well-nigh universal quest -- even in the richest nations whose populations' "basic needs" have long since been satiated -- for a continuously rising "standard of living". Similarly, it is important to understand why some people are politically mobilized -- and others are not -- against perceived environmental problems, be they global in scope (like CFC emissions) or local (like the water pollution, deforestation, or the exhaustion of arable land).3

Varieties of Environmental Experience

In carrying out any such analysis we must recognize the instability and ambiguity of the term "environmentalism". Almost no one professes anything but good will toward "the environment" or its protection; yet few social movements elicit greater hostility than -- or embody such deep divisions and bitter controversies as -- the diffuse collection of ideas and groups labeled "the environmental movement". The "environmentalism" of the National Rifle Association and of sports trophy hunters is no less passionate than that of deep ecologists and the "tree hugging" members of Earth First! To be sure, mainstream environmentalists regard the

"environmentalism" of international paper companies or the nuclear power industry as self-interested, exploitive, and manipulative. Although none of the authors in this volume endorses the views of those corporations, we are reluctant simply to charge them with hypocrisy, but would prefer to see them as embracing a different conception of the environment, based on different historical time spans, different interests, and different assumptions about the essential relationship between humanity and nature. One of the essential tasks of the humanist, therefore, is to disentangle some of the meanings of "environmentalism".

While the classifications that follow are somewhat arbitrary and tentative, we think them a useful introduction to the essays that follow. They serve to highlight that there are many varieties of environmentalism; many sets of attitudes, values, and beliefs subsumed within the omnibus term environmentalism.

Ecocentrism and Anthropocentrism

Nowadays environmental thinking is widely assumed to be polarized between two opposed, probably irreconcilable doctrines: ecocentrism and anthropocentrism. Ecocentrism is a moral philosophy whose exponents, a vocal minority of environmentalists, are dedicated to changing radically the way we think about humanity's relations with nature. They look upon mainstream environmentalists as weak compromisers who may inveigh against the despoliation of the environment, but who in practice are all too accommodating to the despoilers. Such weak compromising is predictable, the ecocentrists contend, because reform environmentalists and despoilers, whatever their differences, are indistinguishable in one crucial respect: both assume

that our chief reason for protecting the environment is its usefulness to ourselves, to human beings. But nothing we could possibly do to arrest the accelerating devastation of the global ecosystem would be more effective, from an ecocentric viewpoint, than to rid ourselves of the complacent illusion that nature exists to serve humanity. "No intellectual vice is more crippling," writes the Harvard sociobiologist and ardent ecocentrist, E.O. Wilson, "than defiantly self-indulgent anthropocentrism."4

The radical transformation of human consciousness envisaged by Wilson and his fellow ecocentrists -- which they see as a belated accommodation to the inescapable dictates of biological reality -- would be as profound as that which followed the discoveries of Copernicus, Newton, or Darwin. It entails acceptance of the far-reaching implications they draw from an unarguable fact of nature, namely, that homo sapiens is only one of the myriad, intrinsically valuable, interdependent species on Earth, and their conclusion that we therefore have no right to reduce the diversity of life, or to assess the worth of other forms of life -- or even, for that matter, of inanimate parts of nature -- merely on the basis of their value to ourselves. To satisfy our basic needs, of course, humans might continue to kill some animals, consume plants, and use nature in various other ways. But these and all other human activities should henceforth be restricted by the ruling imperatives of ecocentrism: to live lightly on the earth, to restrict the scope of technological innovation and intervention, and to treat all forms of life -- and all parts of the cosmos -- with reverence, responsibility, and care.

The intellectual genealogy of the ecocentric doctrine leads back to the religious origins of contemporary attitudes toward the nonhuman environment. The ecocentric lineage may be

traced, by way of the Norwegian philosopher Arne Naess, to modern nature writers like Rachel Carson, Aldo Leopold, and John Muir; to poets and novelists like Robinson Jeffers, Gary Snyder, D.H. Lawrence and Thomas Hardy; to the great Romantics, Rousseau, Coleridge, Wordsworth, Blake, Goethe and - especially for their shaping influence on American attitudes toward nature - the prominent Transcendentalists, Ralph Waldo Emerson and Henry Thoreau. Almost without exception, these writers accorded the natural environment a reverence of the kind - and of the intensity - their forbears had reserved for divinity.

Emerson and Thoreau, in particular, were pivotal in effecting the transition, in America, between predominantly theological and predominantly secular views of nature. They played a role analogous in many ways to that that played by Coleridge, Carlyle, and Wordsworth in England, Rousseau in France, and Goethe in Germany. But the religious roots of Emerson's and Thoreau's environmental thinking seem more obvious. They patently were the heirs of Jonathan Edwards, the greatest philosopher produced by New England Calvinism, and of three or four generations of Puritan thinkers who preceded him. Although they adopted a less explicitly religious language to discuss human interactions with the environment, that discursive change was somewhat misleading, for it disguised the degree of underlying continuity between their ideas and those of their religious precursors.

Thus Emerson, a descendent of a long line of New England ministers, began his career as a Unitarian pastor, and he never stopped thinking of nature - to invoke his formulation in the seminal boo Nature (1836 - as "the present expositor of the divine mind." His mature philosophy was a somewhat idiosyncratic amalgam of Anglo-German Romanticism (much of it indirectly

borrowed from the 18th-century German Naturphilsophen), post-Kantian idealism (above all Schiller's version), and his hereditary Yankee protestantism.

Thoreau, who was fourteen years younger, began his career as Emerson's disciple; at first he adopted most of the Transcendentalist doctrine, but he soon too a more independent course. He became a knowledgeable woodsman and amateur naturalist, and he developed a distinctive literary style based on the exact observation and depiction of natural facts. The purest examples of his brilliant nature writing are to be found in his immense Journal. But his most popular and influential work, Walden (1854), also conveys a passionate aversion to the dominance of society by an acquisitive commercial ethos that issues in a well-nigh systematic degradation of the environment. In his nature writing, Thoreau exemplified a pragmatic yet worshipful attitude toward nonhuman nature that now has made him the patron saint of ecocentrism.

Unlike the ecocentrists, who emphasize the attributes humans share with other species, the anthropocentrists hold that we humans have a unique responsibility as stewards of the environment. That responsibility derives in part from religious doctrine, such as the biblical injunction (in Genesis) "to replenish the earth, and subdue it, and have dominion over ... every living thing that moveth upon the earth," and in part from humanity's manifestly distinctive capacities -- intellectual, moral, technological -- to manage the resources of Earth. The concept of "resource management" is a hallmark of the anthropocentric relationship with the environment. Environmentalists of that utilitarian persuasion remind us that most species that ever existed are extinct; that the history of nature is marked by unceasing change; and that though each species modifies its habitat in some degree, the extent to which humanity's

modification of its global habitat exceeds that of all other species amounts to orders of magnitude. To the charge that anthropocentrism represents an arrogant, self-serving presumption of human superiority, the anthropocentrists respond by charging the ecocentrists with what appears to be an even more arrogant refusal to accept the responsibility, for which homo sapiens in the uniquely qualified species, to oversee the maintenance of a life-enhancing ecosphere.

We are presenting the dichotomy between ecocentric and anthropocentric environmentalism in its sharpest, most melodramatic form. To be sure, each of these extreme viewpoints has its adherents, but they constitute a small minority. Most active environmentalists, as well as most members of the general public who advocate the protection of the environment, almost certainly hold opinions of a measured, pragmatic, utilitarian -- or anthropocentric -- tenor. But however unrealistic or impractical the severe ecocentric code of environmental probity may seem, it nonetheless provides a challenging long-term goal of harmonious accommodation to nonhuman nature, and the unillusioned recognition of certain unmodifiable, bedrock imperatives of human survival. The value of ecocentrism, like other visionary, or utopian, doctrines, is to generate long-term aspirations -- to educate desire.

Apocalyptic vs Gradualistic

A parallel, closely related, spectrum of opinion along which environmentalists differ is defined by the degree of urgency they bring to their proposals. The ecocentrists tend toward a more extreme, even apocalyptic sense of urgency, whereas the anthropocentrists are more likely to

advocate a temporizing, gradualist agenda. They consider it more prudent and effective, in the long run, to make haste slowly.

At the apocalyptic extreme is the view that the environmental "crisis" has already reached catastrophic or near-catastrophic proportions: we currently risk the destruction of the habitat of humankind and of most species through actions already taken or imminent. Typical culprits are global warming, the proliferation of toxic chemicals, the population explosion, the pollution of air, water, and earth, and the accelerating rate of species extinction. In this apocalyptic view, the carrying capacity and recuperative powers of the planet have been exceeded or are about to be exceeded. Barring massive immediate changes in human behavior, irreversible and catastrophic destruction -- including the death of billions of human beings and the possible extinction of life on the planet -- will result.

This apocalyptic view is typically accompanied by calls for far-reaching changes in the way we live, organize our institutions, and view the world. Apocalyptic environmentalism is analogous to -- and indeed often has historical roots in -- millennial religious movements, with their inherited notions of imminent destruction and their calls for dramatic and total reform, repentance, and spiritual reawakening. Indeed, the modern sense of an oncoming ecological apocalypse owes a great deal to the ancient Christian tradition of millennial evangelism and fundamentalism. In the United States, where today's "deep ecology" and ecocentric doctrines draw heavily on the writings of the New England transcendentalists, especially Emerson and Thoreau, there is a direct line of descent from the eschatological tenor of the Puritan churches (via John Muir and the Sierra Club, for example) to ecological apocalypticism. In eighteenth-

century Western thought, moreover, there was a widespread tendency to transfer qualities previously reserved for divinity to an abstract, post-Newtonian concept of Nature. Thus the despoliation of the environment has come to have close affinities with the kinds of mortal sin which merit severe divine punishment.

At the opposite extreme is the gradualist, take-no-rash-action, we-do-not-know-enough view that is especially common among scientists, politicians, and spokesmen for industry. Gradualists stress the admitted uncertainty of many scientists who work on ecological problems, and they are concerned about the harmful effects of action taken prematurely, in the absence of certain knowledge. They are less impressed by the rapidity than by the slowness of changes in the state of the environment, and consequently they stress the ways that recent human, political, and economic actions already have achieved improvements. Thus, for example, they point to the positive results of the environmental protection laws, or international agreements, adopted in the last twenty years by the industrialized nations. Above all, gradualists stress the hazards of taking action in the absence of firm, truly reliable knowledge.

It is easy to attribute self-interest to gradualism when it is adopted by spokesmen for corporations and other institutions called upon to adopt economically and humanly costly innovations. But this view also is held by many who have no self-serving economic or political interest in deferring action. They insist on the inadequacy of existing models of environmental change, the uncertainties of ecological knowledge and theory, and, most important, the human, economic and social costs of taking the more radical measures advocated by the environmentalists of the most apocalyptic cast of mind. Whatever the environmental toll of the

pesticides, tube wells, herbicides, and "artificial" fertilizers associated with the Green Revolution, for example, their immediate abolition would dramatically diminish the world's food supply. This might be ecologically sound from a long-term point of view, but in the short term it probably would produce massive food shortages, and it might well result in the death from starvation of millions, even billions, of people. Gradualists contend that as yet we have no sure evidence of irreversible environmental damage, and that remedial or preventive action should await a knowledge of its consequences.

Materialism vs Idealism

Another divide between environmentalists separates those who believe that environmental problems are in essence material or technological problems from those who regard them as in essence problems of consciousness, values, or beliefs. For the latter, the environmental dilemma is largely ideological, spiritual, aesthetic, cultural, or psychological in character. In contrast, at the materialist extreme are those who assume that history is generally a record of continuous, cumulative, steady progress, and who see contemporary environmental problems as the result of inadequate and poorly conceived technologies like polluting energy sources, unsafe nuclear reactors, toxic organophosphates, inadequately re-processed industrial wastes, or automobiles with excessively damaging exhausts. For them the central environmental problem resides in inadequate or antiquated technologies or in methods of intervention in the environment developed without adequate knowledge of their potential results. They stress the malign impact of the law of unintended consequences.

Almost invariably, then, gradualists contrive, and optimistically endorse, technological solutions. The "green technology" movement, with its emphasis on "reducing the waste stream", on devising "cleaner forms of energy production", on "fail-safe third generation nuclear reactors", on non-polluting or low-polluting methods of transportation, typifies the optimistic views of those who conceive of both the problem and the solution as technological. As a president of MIT once put it, "The answer to bad technologies is not no technologies, but good technologies."

At the other extreme are those who view the ultimate sources of environmental problems as essentially moral, spiritual, aesthetic, ideological, or cultural in character. Our relations with nature do not originate in tangible, material circumstances so much as in the beliefs, values, and meanings of which whole ways of life -- entire cultures -- are constituted. "Tis said," Emerson once remarked, "that the views of nature held by any people determine all their institutions." Thus the assumption that nature exists to serve humankind is decisive. It manifests itself in the culturally shaped -- and instilled -- desire for standards of living far beyond those necessary for the maintenance of life and health, the advent of "consumerism" propelled by a powerful advertising industry whose purpose is to create "needs" for new products which the population never knew it needed (VCRs, high definition television sets, automatic bread makers, computers, etc.), and most important a "materialist" mentality that places the satisfaction of material needs, particularly acquisitive and consumerist needs, ahead of non-material aesthetic, moral, or spiritual satisfactions -- these are seen as primary causes of the environmental crisis.

The solution, accordingly, lies not in better scrubbers or cleaner catalytic converters or safer nuclear reactors, but rather in a massive transformation of culture -- of human aspirations: a

willingness to dispense with superfluities, and a widespread embrace of a life of "voluntary simplicity". This would entail a radical change of values: a relinquishment of the pursuit of a steadily rising level of consumption (standard of living) in favor, as society's chief economic goal, of equitable sufficiency. Instead of an economy committed to limitless growth, the primary aim of this relatively ecocentric economy would be to dispense with many superfluities, and concentrate on providing the truly necessary material goods to all the world's people. In this view, fulfillment would be identified with the achievement of satisfying human relationships, with the life of the mind and spirit, and with the effort to achieve a more harmonious coexistence with nature. In short, the non-material aspects of life would be given priority over the anticipated benefits of increasing human control of nonhuman nature. The call, then, is for a transformation of collective consciousness, a renunciation of today's pervasive consumerism, and the abandonment of that obsession with technological and economic "progress" that dominates the lives of people in virtually all contemporary societies.

Primitivism vs Presentism

Another critical distinction between environmentalisms and environmentalists is related to their evaluation of the mindsets, outlooks, and practices of "primitive" (i.e., pre-modern) and/or non-Western peoples. Often associated with an ecocentric and millennial outlook, the "primitivist" outlook sees pre-modern and non-Western societies as an important source of ideas and practices that could help solve contemporary environmental problems. The outlook of pre-modern societies is often characterized as animistic, as not drawing decisive distinctions between humankind and the rest of nature, as committed to "living lightly on the land", and above all to

showing a loving respect and concern for all living things. Some primitivists look with special admiration on the spiritual reverence with which certain Native American tribes regarded animal or vegetable totems, and others encourage the re-creation of pre-modern rituals or the deliberate search for wilderness experiences as a means of recovering a direct relation with Nature.5

One variant of primitivism looks less to pre-modern societies than to non-Western societies, and in particular, to those societies that are not influenced by the Abrahamic tradition of God-given "dominion" over nature -- i.e., not by Judaism, Christianity, or Islam.6 In societies like India or Japan, it is said, even today people have a more reverential, more "ecological" attitude toward the biophysical world. One Japanese observer claims, for example, "Nature is at once a blessing and friend to the Japanese people. ...People in Western cultures, on the other hand, view nature as an object and, often, as an entity set in opposition to humankind."7

At the opposite pole are those who question the relevance of pre-modern and non-Western attitudes to contemporary environmental problems, and/or who deny the claim that these attitudes are truly "environmental" in any useful contemporary sense. Some critics of primitivism point out that pre-modern societies have often despoiled and even destroyed their environments, and argue that many previous civilizations have collapsed because of self-created ecological disasters. Others question whether non-Western societies like Japan are truly environmentally oriented in any comprehensive way. For example, one student of Japanese environmental attitudes argues that the Japanese "reverence for nature" is in fact a "highly restricted" attitude, "confined to particular species or individual animals, frequently admired in a context emphasizing control, manipulation or contrivance."8

Most important, those who reject the views we are calling "primitivist" believe that contemporary environmental problems are sui generis -- unlike those faced by any previous civilization. They chiefly attribute today's problems to the enormous expansion in human understanding of, control of, and power over the environment brought about by the scientific, technological, and industrial changes of the last two centuries. Modern societies have the technological power to destroy their environment and perhaps, indeed, to cause irremediable damage to the global ecosystem, whereas previous societies did not. Having "wilderness experiences" on plastic rafts roaring down rapids created by the timed release of water from an upstream hydroelectric plant -- such experiences may replenish the spirits of those who can afford them, but they do not truly speak to the major contemporary, environmental problems, all of which involve complex socio-technological systems. And it is simply not clear to critics how simple reverence for nature or pre-modern rituals, even if they did characterize pre-modern and non-Western societies, can help us deal with contemporary problems like global warming, acid rain, ozone depletion, or toxic chemicals.

Worldview vs Issue

Another contrast between environmentalisms is that which separates environmentalism viewed as the fulcrum of an embracing, comprehensive philosophy of life, society and politics, and that which views the preservation of the environment as simply one important value among other, possibly equally or more important, objectives.

The contention that environmentalism is -- or should be -- central to an all-inclusive philosophy of life and social organization is closely associated with certain millennial, spiritual, and global perspectives. The essential claim, as with ecocentrism, is that a drastic reorientation of existing values is required, such that the first criterion of every individual action, social policy, or political act should be its bearing on the preservation and enhancement of the environment. At the individual level, environmentalism therefore means adopting lifestyles characterized by "voluntary simplicity"; at the social level, it requires a redesign of all social institutions to enlarge those that preserve the environment and to eliminate those that degrade it; at a political level, it means re-organizing policy and politics, and perhaps even redefining political boundaries so as to promote environmental preservation. So seen, environmentalism is an overriding philosophy, sometimes described as a "new" worldview, which must supplant consumerist, capitalist, socialist, individualist, or other allegedly environment-destroying outlooks.

The alternative view sees environmental preservation as only one among other important social values -- for example, social justice, economic development, human rights, and the fulfillment of individual ambitions. Proponents of this view deny that ecological principles constitute an adequate base for an entire philosophy, and note that there are environmentalists of every political stripe from the reactionary right to the radical left. Other values, such as equity and individual liberty, may at times compete and conflict with, and deservedly override environmental values. Reverence or care for nature in itself tells us little about how we should organize our daily lives, our social institutions, and our political affairs. In the Northern industrial societies, to be sure, environmentalism is today usually associated with a "left wing"

point of view; but in the 1920s and 1930s, some ardent environmentalists were ultra-conservatives or fascists who saw nature worship as a part of an embracing rejection of contemporary industrial society and a return to values of blood and brotherhood. Similar alliances between environmentalism and ultra-conservatism are seen today in Russia, where some environmentalists, dubbed "eco-fascists", combine a reverence for the vast, unspoiled Russian taiga with anti-Semitism, anti-industrialism, xenophobia, opposition to democracy, and the call for a return to a command-and-control economy. In short, the defense of the environment provides inadequate guidance as to how to organize life, society, or the polity: for that, we need additional goals and values. Environmentalism, however important, does not in itself constitute the basis for a comprehensive worldview.

Global vs Local

Another distinction among environmental movements is between those that adopt global, and those that adopt local, perspectives. Global environmentalists, who have emerged as a powerful force in recent decades, stress the worldwide despoliation of nature. The objects of their concern are trans- national, indeed planetary. They began, in the era of nuclear weapons testing, by stressing the dangerous spread of radioactivity around the world, and they then moved on to concerns over acid rain, CFC contamination, the diminution of biological diversity and stability as a result of human activities, the menace of overpopulation, the global threat produced by over-fishing and modern agricultural methods, and, perhaps most important in the late 1990s, the threat posed by global warming and related changes in the global climate.

Such global changes, it is argued, threaten to end -- or already have ended -- the concept of "nature" as an accessible realm free of human intervention.9 By now the very sky above is polluted by CFCs, ozone, and greenhouse gases created by human activity. Nothing in our corner of the cosmos is left unaltered, uncontaminated by human interventions. The fragile layer of earth, water, and air which sustains human activity on the surface of Earth is threatened, and its protection must be given the highest priority for remedial action. Globalists applaud the Montreal agreement to ban CFCs; they urge reduction in the emission of carbon dioxide, especially by the industrial nations; they worry about the increase in other greenhouse gas releases in the industrializing nations. Most of those who express such global anxieties are not -- at least not yet -- personally affected by the trends that alarm them, but they have informed intellectual, idealistic, and scientific reasons for concern about the future of the planet.

The concerns of local environmental movements are very different: they habitually focus on a particular problem in a particular locale, and involve those immediately affected by the problem. Thus the so-called "toxics movements", usually led by women concerned for the welfare of their families, are directed against specific local dangers. These movements, in most cases limited in the scope of their concern to a single local problem, are a worldwide phenomenon as characteristic of India and Kenya as of the United States and Norway. Epitomized in the United States by the activist residents of Love Canal, they direct attention to, say, a dam in India that is being built to support industrial development and alleviate the national shortage of electric power, but that also threatens the living space of tens of thousands of villagers; a toxic waste dump, often located in a community of poor and unempowered minority citizens; the proposed location of a nuclear plant near a downwind village; the industrial pollution of a what had been

until recently a pristine lake in Siberia -- thousands of such local movements of resistance to local despoliations have arisen on every continent. To some observers they constitute today's most energetic and promising form of environmental action. They have suggestive common attributes: they are usually led by women; they typically mobilize individuals not previously active in environmental movements; they often activate those who are dispossessed, propertyless, or politically inert; with a few notable exceptions, they resist affiliation with larger, national groups; and they tend to disband once their local objectives have been achieved.10 The chief point, in any case, is that these movements devote their energies to coping with concrete, visible, palpable local problems.

Ecofeminist vs Material Feminist

One of the more striking dichotomies in environmental outlooks is that found within the feminist movement. At one extreme are ecofeminists, who base their view of the nature and remedies for environmental degradation upon an essentialist construction of male and female temperaments, in which men seek power over nature and women protect and revere the earth and its fecundity. At the opposite extreme are material feminists who argue that in specific circumstances, particularly in third world countries, the undermining of inherited gender roles and rights, usually through mistaken transposition of Western gender ideologies, has resulted in mismanagement of land and water resources, and the production of cash crops in place of traditional food staples, mobilizing women because they are most immediately affected by these changes.

Ecofeminists clearly fit within the millennial, spiritual renewal spectrum of environmental thought, since they argue that the planet will be destroyed by male aspirations to technological power over nature and by the male quest for ever more powerful nuclear and biological weapons. As a counterbalance to this assumed male drive they propose return to worship of the mother goddess, and revived reverence for the earth and for the fertility of nature. In this sense ecofeminists seek to convert humankind to a spiritual revival based upon worship of the feminine principle, pacifism and a return to a prehistorical, simple agricultural society.

Material feminists, on the other hand, see some successes in the efforts to preserve women's rights to use over land in parts of South Asia and Africa, and in educating development agencies about women's role as the primary food producers in much of Asia and Africa. Their programs seek political solutions through which rights of use over land can be converted to female-owned property, the harvesting of forests can be carried on respecting traditional women's knowledge of forestry, and government plans for transforming land tenure systems can recognize female as well as male rights within village societies. They also favor agricultural education schemes targeted at women food producers, rather than at males who do not till the soil.

In general, ecofeminist ideas are global and ecocentric, while material feminists are concerned with specific local issues and fine-grained studies of why women's food producing role has been ignored in development projects in specific regions. While highly critical of gender hierarchies, material feminists do not essentialize male and female temperaments, nor are they opposed to technology provided women have equal access to its use and equal voice in its control.11

North/South: Conflict vs Community

Almost from the beginning of environmental debate, the differences and parallels between the interests of the "North" -- the highly industrialized nations -- and those of the "South" -- the poor, less developed, or "developing" nations -- have been discussed. A major divide in debates about the relationship between economic development and environment is the degree to which conflict between North and South is stressed as opposed to community of interest.

The conflictual analysis emphasizes that the industrialized nations of the North, above all the United States, are the principal contributors to worldwide pollution, and especially to those processes we label "global change". Per capita outputs of almost every known man-made pollutant are highest in the United States and in other industrialized nations. "Southern" nations, in contrast, with low per capita incomes, greater reliance on agriculture, and low energy outputs, produce less global pollution both on a per capita basis and on an aggregate basis, even though the South constitutes 75-80 percent of the world's population.

Given the commitment of the South to economic development, environmental conflict with the North seems inevitable to many. For example, were the nations of the South to reach the same levels of per capita environmental degradation as the North, the carrying capacity of the Earth might well be exceeded, with catastrophic results. It is claimed that China and India alone, which together contain one-third of the world's population, have the capacity to overwhelm the planet's environment should they reach the levels of per capita pollution that characterize the United States.

When this analysis is accepted, two conclusions are usually drawn: that the nations of the South must limit or strictly control their economic development, and/or that the nations of the North must radically reduce their own level of environmental damage to make ecological "room" for increased development -- and pollution -- from the South. To the nations of the North, then, the ideal solution might be to try to slow the development of the Southern nations, and/or to insist on their use of complex (and expensive) environmental technologies like scrubbers, "green" production facilities, low-polluting energy sources, etc. To the nations of the South, in contrast, the obvious answer is for countries like the United States to reduce dramatically their own levels of environmental degradation.

Emphasizing the conflict between North and South usually entails the further assumption that the wealthy nations are those most concerned with environmental preservation, whereas the poor ones are chiefly concerned with economic development. Only when a high level of economic development has been reached, it is assumed, are people likely to adopt "post-industrial" values like environmentalism. In the impoverished nations, environmental concerns must take a back seat to issues of subsistence and economic growth.

An alternative perspective stresses instead the areas of similarity and potential collaboration on environmental issues between North and South. It emphasizes that most environmental problems are global in nature, and so are their solutions. Loss of biodiversity, the destruction of forest cover, global warming, degradation of soil, salination of arable land, depression of water tables, the depletion of the ozone layer, acid rain, the poisoning of land, animals, and people through

intensive use of pesticides -- all affect the developing nations in as great or greater measure than they do the industrialized world.

Underlining the global nature of environmental concern and problems, poll studies show that individual attitudes of environmental concern bear no relationship to the level of economic development of the nations studied. For example, more Filipinos and Nigerians say they are personally concerned about the environment than do Americans. As the authors of one study conclude, "Conventional wisdom is wrong about the existence of major differences and levels of environmental concern between citizens of rich and poor nations."12 In short, the notion that concern with the environment is a "post-industrial" characteristic of the rich or the rich nations, is incorrect.

A final argument supporting the community of North and South is the similarity of the arguments and movements organized around the environment in both parts of the world. Wherever they are tolerated by political authorities, as in India, citizens' movements to protect the environment in developing nations are extraordinarily like those in, say, the U.S. or Northern Europe. The structure of discourse and debate about the environment, the conflicts within environmental movements, the arguments over the most efficacious means of protecting the environment differ little in Latin America, Africa, and Southern Asia from that occurring in Scandinavia, Australia, or the United States.

Wise Use vs Forever Wild

The contradiction between the "wise use" and "forever wild" attitudes toward nature has given rise to political controversy in the United States for at least a century. A specific variant of the anthropocentric/ecocentric dichotomy, its political ramifications are exemplified by the Hetch Hetchy controversy in Yosemite, California in the late nineteenth century. At that time, engineers working for the city of San Francisco, whose aim was to dam the Hetch Hetchy River as a new source of city water, came into sharp conflict with John Muir and his allies, all militant preservationists.13 The arguments of the dam builders anticipated the later "wise use" doctrine -- today most often advocated by lumber companies, ranchers, hunters, and other land owners -- which holds that nature is a reservoir of energy and other raw materials for human use. (A corollary of the doctrine holds that property rights entitle landowners to compensation for any economic losses incurred as a result of environmental regulations.) People are entitled to use natural resources by means, for example, of the judicious "harvesting" of trees at reasonable intervals; "culling" flocks of wild animals for human consumption; "taming" wilderness areas to prevent flooding; "controlling" undesirable species like wolves, coyotes, bears, and jaguars. The goal is to render the natural environment productive, pleasant, and agreeable for human use. If a species, such as wolves, poisonous spiders, scorpions, rattlesnakes, require elimination, and if that can be shown to benefit humankind, then it may be done; if clearcutting proves to be the most efficacious long-run mode of harvesting timber, then non-material, aesthetic, or sentimental considerations -- and, in some cases, rules for the protection of endangered species -- should be subordinated to the material needs of the population.

At the other extreme is the "forever wild" or "wilderness" preservation outlook. It is exemplified, for example, by the deed of Baxter State Park surrounding Mount Katadyn in Maine, or in the

"nature preserve" movement in the former Soviet Union. Here, what remains of the unspoiled biophysical environment, far from being regarded as a source of society's material "resources", is seen as a sacred or quasi-sacred place with an inherent claim to inviolacy. Lovers of wilderness regard the natural landscape as a source of spiritual and aesthetic nourishment, but only if it is left in its pristine, untouched, or "wild" state. For people without faith in a supernatural divinity, the unspoiled reaches of the natural world, which existed prior to the evolution of humanity, and which presumable will outlast humanity, constitute the only remaining locus of transcendence. The Russian nature preserves are an extreme example: they are substantial areas of "wilderness" from which the entire population (other than attendants and working scientists) is wholly excluded. In the United States today, those who wish to prevent "harvesting" of forests, mining of minerals, or grazing of cattle on public lands almost invariably embrace some variant of the "forever wild" view.

In recent years, however, the concept of "wilderness" has come under sharp postmodernist attack as a typically deceptive social construction. After all, the vast areas of North America that arriving white European settlers called "wilderness" had for centuries been home to some millions of Native Americans. It is easy to demonstrate that what we Americans call "wilderness", especially when it refers to areas of our National Forests and National Parks, is an elaborately constructed cultural artifact. Recently, the environmental historian William Cronon offended many ardent adherents of the "forever wild" school by arguing that we should dispense entirely with the misleading, indefensible space-oriented concept of "wilderness" -- wilderness as a topographical entity -- and transfer our allegiance to the spatially neutral concept of "wildness". Wildness, as identified with aspects of life unmodified by human intervention, can exist

anywhere, indeed everywhere. It is inherent in our own being. Thus, Cronon suggests, a bird in a city, say a migrating warbler in the Ramble area of New York's Central Park, is as wild as it would be anywhere else. Wildness is not restricted by space. Recall that Thoreau's famous dictum, motto of the Sierra Club, is "In Wildness [not Wilderness] is the preservation of the World."14 Thoreau, like other nineteenth-century American writers, thought of "wildness" as an attribute of homo sapiens as well as other animal species. In any case, many recent debates in the United States about the use of public lands, endangered species, and environmental regulations generally, have involved aspects of the conflict between adherents of "Wise Use" and "Forever Wild".

Government Intervention vs Market Changes

Another recurring distinction in environmental debates, finally, is between interventionist and individualist, market-based approaches. In essence, this opposition turns on the issue of which agency (or tactic) is most effective in resolving environmental problems. From an interventionist vantage, isolated individual human actions, however sincere, are of little avail in a complex, highly institutionalized, advanced, tightly organized, urban industrial society. Even if 100 percent of the population recycled all household wastes, they argue, it would have almost no impact on the major sources of environmental degradation, which are industrial, military, and governmental. Barry Commoner argues that the most notable successes of environmental policy have entailed the simple prohibition by public authorities of the use of toxic substances like DDT, lead in gasoline, or CFCs.15 The results, as measured by the diminution of toxicity, have been immediate, dramatic, and progressive. The general principle is that intervention by official

(governmental) mandate -- i.e., regulation -- is usually the best means of improving environmental quality.

The opposing view is that only individuals who are acting because of changed economic incentives in a free market can in the long run effect a reduction in environmental degradation. Rejecting direct governmental regulation as bureaucratic, inefficient, and easy to circumvent, proponents of "free market" environmental measures propose instead such indirect market interventions as taxes on environmentally undesirable behaviors or products, the use of sellable "pollution rights" to encourage industrial conservation of resources, or efforts to "internalize externalities" by market mechanisms that oblige organizations and individuals that do environmental damage to pay the real long-term costs of repairing the harms they do. At the extreme, free market environmentalists may even argue that, in the end, all environmental problems will be solved simply by the automatic mechanisms of the market. For example, as oil supplies are exhausted, the price of oil will rise so steeply that individuals and firms will be obliged to find other energy sources and to conserve oil. When government action is warranted, it is only to enforce, reinforce, or strengthen market mechanisms; not to intervene directly through regulation, standard-setting, and difficult-to-enforce requirements.

It is obvious that there are natural affinities or likely groupings between the positions we have separated above. For example, ecocentrists tend to emphasize the spiritual as opposed to technical nature of environmental problems, to view environmentalism as an aspect of an all-embracing worldview, and to see environmental problems in a global, millennial perspective. Conversely, those who believe that environmental problems are largely technological in nature

tend to be gradualists, to see environmentalism as one among many issues rather than as a complete philosophy, to stress the uniqueness of contemporary environmental problems, and so on. Like other cultural values and political outlooks, environmental attitudes tend to come in "packages" or clusters of associated ideas.

It seems pointless (and misleading) for us to try to identify any one viewpoint, or any one cluster of ideas, as "true" environmentalism -- the rest, presumably, being "false". As humanists, however, we deplore, as limited and ultimately inadequate, environmental programs involving exclusively technological solutions. We insist on the need for enhanced comprehension of the extra-technological -- human, cultural, psychological, political, and religious -- dimensions of any effective inquiry aimed at instituting better measures for arresting the deterioration of the global environment.

We have been increasingly struck by the realization that many of the views we now refer to as dichotomous are in fact not as incompatible as we (and others) had assumed. Thus there are issues to which the extreme ideas of the apocalyptic environmentalists quite reasonably apply, and where immediate action must be taken if irreversible damage is to be avoided. The banning of CFCs, which evidently contribute to the long-term destruction of the upper ozone layer, is a case in point. But there are other issues where a prudent gradualism makes sense, for example, involving the causes and remedies of global warming. In that case present knowledge is limited, and existing models do not enable us to predict catastrophe if we fail to take immediate, costly action, even though prudence would nonetheless seem to justify a serious international effort to reduce the emission of greenhouse gases. Nor do we view innovations in technology as

necessarily incompatible with preserving the spiritual benefits of our relations with nature. On the contrary, the well-being of the environment seems to involve importantly both changes in the values that issue in rampant consumerism -- including a willingness on the part of the rich nations to alter their behavior with a view to reducing inordinate levels of environmental pollution -- and, at the same time, changes in technology that will permit them to do so and permit other nations to realize their justified aspirations for a more adequate standard of life without overloading the planet's fragile environmental balance.

In one area, however, we have taken sides: while we appreciate and understand the ultimate, long-term educative value of the ecocentric doctrine, we believe that it is untenable in the foreseeable future. Or, rather, we believe it is much less tenable than the anthropocentric view that stresses the material and political needs of humankind. To be sure, conflict between the human species and other species can and should be reduced and, if possible, avoided. But in the end, we believe that the ultimate justification for environmental preservation, far from inhering in the absolute and equal rights of all species, is humanity's moral obligation to its own kind. Moreover, without a reasonable improvement in the degree of equity in the conditions of human life, no resolution of our environmental problems is conceivable. Anthropocentrism, as we would endorse it, does not provide a rationale for ravaging nature to satisfy the trivial needs of human beings; rather, it means preserving the environment, protecting it, nursing, shepherding, and husbanding it precisely because we, as human beings, so desperately require a flourishing global landscape.

In our view, many aspects of contemporary environmental thought involve issues of major concern to humanists. The scholar of the humanities has disciplinary training to elucidate the millennial and apocalyptic nature of much environmental writing, the authoritarian assumptions behind many plans to coerce changes in consumption, the uninformed idealization of traditional cultures and their environmental practices, the essentialist view of gender differences enshrined in ecofeminism. All of these views of human history, expectations about the future, and

wholesale rejections of contemporary science and technology touch on deep themes in the modern and post-modern consciousness.

Environmental thought today also raises issues once thought settled in the age of the Enlightenment. Is there such a thing as progress? What is the moral standing of animals, plants, forests, groundwater? Are we to face a Malthusian future in which population will outrun resources? Does consumerism touch such deep structures in the human psyche that we cannot imagine a cultural era based upon rational voluntary restraints on consumption? Are North/South concerns about environmental issues really so different? Our analysis of the patterns of thought represented in Indian environmentalism, for instance, shows the same dichotomies we have identified for the West. These should alert us to the possibility that thought about man and about nature as cultural category may be more global than our current focus on ethnicity and cultural difference allows.

The Humanities and the Environment: What is to be Done?

Despite the importance of such questions, our efforts to engage humanists in systematic work on environmental issues were often unsuccessful. We thushave asked ourselves whether there are ways in which the professional training of humanists and the ends toward which they direct their work might be reformulated so as to bring the human/non-human environmental relationship into sharper focus.

We see this question as important partly because of the postmodern attack on the ideas of the Enlightenment, which is one way the professional training and ethos of humanists has been altered, often negatively, vis-à-vis environmental issues. For one of the consequences of postmodernism lies in its defining a broad range of questions or intellectual territories as outside the sphere of the humanities, that is, as not part of the humanist task to explore what it means to be human. Among these questions are a number central to the understanding of contemporary environmentalism.

For example, the preparations for our workshop involved a search for an art historian who could explicate how the history of representations of nature might illuminate the non-verbal and emotional changes which have accompanied environmental degradation. Artists only began to paint landscape after land defined as private property became the norm. And the history of art shows us how nature gradually became merely a backdrop for human being in early modern times. Be we were able to find no tradition of seeking to understand what that change means in terms of the human/non-human relationship.

We also searched in vain for an economist or historian of ideas who could help us understand just when and why humans became defined as and encouraged to be insatiable consumers. Our workshops helped us to see that in the wealthy modern societies consumption is as powerful a cultural activity as production, and that the "masses," Marxist theory notwithstanding, exercise aesthetic judgments and sensibilities as consumers. But much humanistic thought has been based on the demeaning notion of "mass society" as devoid of aesthetic concerns, a point of view shaped in part by European émigré's encounter with Fascism as a mass phenomenon.

Professional training which contested these received ideas from a variety of cultural perspectives would be a valuable preparation for teaching and research in the humanities today.

The contemporary study of ethics does indeed address issues raised by the need to constrain or redirect consumption in the interests of intergenerational environmental equity. But we found that much remains to be done to move such concerns into the everyday language of the humanities. We believe that they need to be much discussed as say, the impact of the machine on the human imagination, or the alienation of the landless poor following the closing of the commons.

The discipline of history has in recent years shown a growing concern with the study of events that occur outside a human timescale: For example, the impact of climate on changes in vegetation, the rise of sea levels, and other natural phenomena. But the standard professional training of historians as yet places little systematic emphasis on the understanding of such macro-environmental events, leaving "nature" as much of a backdrop to the historian as it was to the Renaissance artist. Moreover, while there are now many and controversial accounts of the relationship between the exhaustion of resource bases and the expansion of ancient empires, those themes are rarely treated as standard in the professional preparation of historians who study the contemporary era.

The humanities and the social sciences converge in the study of myth; but here, too, we found little systematic study of apocalyptic imagery in contemporary environmental thought, and even

less analysis of those mythologized "traditional societies" which are often invoked to instruct late twentieth century men and women about how to live in supposed harmony with nature.

The final section of this volume deals with the problem of modernity, a problem which calls for systematic inquiry in all humanistic disciplines concerned with environmental issues. Postmodernist theory has made many contributions. It is a useful corrective to the frequent modernist rejection of Technology. Postmodernism also contains an invaluable commentary on imperialism and its cultural rationalizations, embodiments, and consequences. It rightly insists upon the breakdown of barriers between the organic and the engineered, barriers which were central to the modernist mentality.

But there remain many crucial environmental issues to be investigated by postmodernist thinkers. Should environmentalism abandon totally the Enlightenment concern with human reason? Is the 18th century stress on religious toleration irrelevant to human experience in Serbia and Croatia today? While it is undoubtedly true to note that war crimes are defined by the victors, are there not some universal notions of human rights which should inform our responses to the local and tribal conflicts of today, to the degradation or exhaustion of natural resources, or to the abuses of power seen in modern commercial imperialism? Central among these questions are concerns for the rights of women and men to use common land and forests and to retain some balance between rural and industrial/ commercial life. Though these issues are usually defined as economic, as having to do with development policies, they are also humanistic, having to do with human/non-human environmental relations in the context of contemporary politics.

Recent years have shown a steady movement by humanists toward sustained analysis of environmental issues. Many of the authors represented in this volume have been leaders in that movement. But this work also reminds us that much remains to be done: The humanities and the humanistic social sciences have barely begun to scratch the surface of sustained inquiry into environmental issues. Environmental questions, we believe, must be central to the concerns of humanists, preoccupied with the most fundamental questions of human existence. A humanistic training that neglects environmental issues sets the humanities at the margins, rather than at the center of modern concerns. To the skeptic who questions the relevance of the humanities to environmental issues, we commend these essays as examples of the fruitful linkage of the humanities and the environment.

ENDNOTES

1. For a provocative collection of essays, most of them exemplifying this viewpoint, by scholars in many humanistic disciplines, see William Cronon, ed., Uncommon Ground: Toward Inventing Nature (New York: W.W. Norton, 1995).

2. See S. Jasanoff, Science at the Bar: Law, Science, and Technology in America (Cambridge, MA: Harvard University Press, 1995).

3. The perspective here developed accords closely with that of Riley Dunlap, especially in R. Dunlap and W. Catton, "Struggling with Human Exemptionalism: The Rise, Decline, and Revitalization of Environmental Sociology," The American Sociologist (Spring 1994), 25:5-30.

4. E.O. Wilson, On Human Nature (Cambridge, MA: Harvard University Press, 1978), p. 17.

5. Current issue of Social Policy (Sept. '96 ?).

6. Lynn White.

7. Murata, quoted in S. Kellert, [[add article]], Journal of Social Issues (1993), 49:53-69.

8. Riley E. Dunlap, George H. Gallup, Jr., and Alec M. Gallup, "Of Global Concern: Results of the Health of the Planet Survey," Environment (November 1993), 35, 9:36.

9. See, for example, Bill McKibben, The End of Nature (New York: Random House, 1989).

10. FN re important exceptions; reference to volume.

11. See Vandana Shiva and Maria Mies, Ecofeminism (London and New Jersey: Zed Books, 1993) and Bina Agarwal, A Field of One's Own: Gender and Land Rights in South Asia (New York: Cambridge University Press, 1994).

12. Dunlap, et al., op. cit.

13. Michael Smith.

14. See William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in William Cronon, ed., Uncommon Ground: Toward Reinventing Nature (New York: W.W. Norton, 1995), pp. 69-90. For a series of critical responses to this argument, including a reprint of the essay and a response by the author, see Environmental History, I (January 1995), pp. 7-55.

15. Commoner.