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Space, Place, and Environmental Ethics

EDITED BY

ANDREW LIGHT AND JONATHAN M. SMITH

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34. Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third World Perspective," *Environmental Ethics*. 11, no. 1 (1989): 71–83.

35. Warren, "The Power and the Promise of Ecological Feminism"; see also Jim Cheney, "Postmodern Environmental Ethics: Ethics as Bioregional Narrative," in *Postmodern Environmental Ethics*, ed. Max Oelschlager (Albany, N. Y. : State University of New York Press, 1995), 23–42.

36. Warren, "The Power and the Promise of Ecological Feminism," 135–36.

37. Haraway, "Situated Knowledges," 191–93.

38. Kent C. Ryden, *Mapping the Invisible Landscape: Folklore, Writing, and the Sense of Place* (Iowa City: University of Iowa Press, 1993), xiv.

39. Some other treatments of place that are relevant to a contextualist environmental ethics include Eric Hirsch and Michael O'Hanlon, eds., *The Anthropology of Landscape: Perspectives on Place and Space* (Oxford: Clarendon Press, 1995); D. W. Meinig, ed., *The Interpretation of Ordinary Landscapes: Geographical Essays* (New York: Oxford University Press, 1979); Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977); and David Seamon, ed., *Dwelling, Seeing, and Designing: Toward a Phenomenological Ecology* (Albany: State University of New York Press, 1993).

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Ecology, Modernity, and the Intellectual Legacy of the Frankfurt School

Matthew Gandy

Oil-soaked seabirds lie scattered along a Canadian shore. Children suffering the long-term effects of nuclear radiation lie impassively in a Kiev hospital. Thousands of victims of the Bhopal explosion seek compensation for the impact of industrial negligence. These and many other striking examples of the ecological consequences of modernity lead many environmental thinkers and activists to reject any ideas drawn from the legacy of Western Enlightenment with its anthropocentric stance in relation to nature. But what is the cause of these environmental calamities? Will the abandonment of modernity and the legacy of Western rationalism actually lead us toward a new society in harmony with nature? By abandoning modernity altogether do we risk a chaotic regression wherein ethical principles derived from nature itself undermine any epistemological attempts to understand the cause of environmental problems?

In this paper I draw on the legacy of the Frankfurt School of critical theory in order to argue that ecological problems can best be resolved by an extension of communicative rationality in order to transform relations between society and nature.[1] By communicative rationality I am suggesting that the solution to environmental crisis lies ultimately in the sophistication of our social institutions rather than in the search for new models of society drawn from nature.[2] Central to my argument is the contention that environmental ethics and epistemology are interrelated: the attempt to separate ethics and epistemology may lead to specious appeals to nature-based political ideologies that obscure

the capacity for historical change in human societies. My appeal for the development of communicative rationality and a reformulation of the modernity project stems from the normative impossibility of improving social institutions in the absence of a dynamic and critical public sphere. I thus seek to relate environmental discourse to the contemporary processes of social and economic change, which have fundamentally altered the context for policy making in Western societies.

In the first part of the paper I show that there are important areas of overlap between the critique of instrumental reason developed in the postwar writings of the Frankfurt School and the emerging ecological critique of modernity advanced by radical sections of the environmental movement. Second, I develop the concept of communicative rationality in order to show how epistemological issues are central to any discussion of environmental ethics. I argue that the Habermasian conception of communicative rationality contains a number of important weaknesses born out of its unnecessarily restrictive ethical and epistemological stance with respect to nature. Finally, I explore the current attempt to construct an ecological Enlightenment around a revitalization of the modernity project advanced by Ulrich Beck. I argue that this marks an important advance on the earlier treatment of ecological issues by the Frankfurt School, yet the normative value of Beck's analysis is hampered by an overemphasis on the technological dimensions to social change. I explore this weakness by drawing on an alternative reading of the tension between ecology and modernity advanced by the North American inheritors of the early Frankfurt School tradition.

Modernity in Question: The Critique of Instrumental Reason

One of the first major engagements with relations between society and nature in the writings of the Frankfurt School is contained in Theodor Adorno and Max Horkheimer's *Dialectic of Enlightenment* published in 1947.[3] For Adorno and Horkheimer, concern with the mastery and destruction of nature forms a central element in their critique of instrumental reason as the shadowy side to Western Enlightenment. Emphasis is placed on science and technology as an advancing system with an internal dynamic and logic of its own, dangerously adrift of civil society. This concern with the ecological consequences of modernity—the destruction of natural beauty, the restriction of public

debate to narrowly-defined technical criteria, and above all, the notion of a radical discontinuity between the rhetoric of progress and the reality of social and environmental disarray in the twentieth century, suggests a shared perspective between many of the central tenets of critical theory and radical ideas developed in the environmental literature. I argue in this paper, however, that the interrelation between the insights of critical theory and the radical environmentalist critique of modernity is far more complex and problematic than is widely recognized.

Recent years have seen a growing interest in critical theory from the more theoretically inclined environmental literature. One of the most significant recent responses to the work of Adorno and Horkheimer is provided by Robyn Eckersley. She explores the critique of instrumental reason and the extent to which this might lay the basis for an alternative environmental ethic. For Eckersley, the particular significance of critical theory lies in the shift away from the economic determinism of orthodox Marxism, thereby allowing emphasis on different sources of oppression and exploitation in capitalist society. She identifies parallels between the work of Adorno and Horkheimer and "the ecological critique of industrial society" as it has emerged since the 1960s.[4] Yet her ecocentrist standpoint tends to overemphasize the technological dimension to modernity and elide the critique of instrumental reason with a complete rejection of Enlightenment. Her reading of the critical theory literature views the work of Adorno and Horkheimer through the binary and simplistic analytical framework of ecocentrist and technocentrist thought, a distinction that blurs rather than illuminates our understanding of the environmental crisis.

Adorno and Horkheimer present us with one of the most sustained and influential critiques of Enlightenment rationality yet written but their legacy raises numerous unresolved questions concerning the role of science and technology in an "incomplete" modernity, themes that are tackled in greater detail in the later work of Herbert Marcuse, Jürgen Habermas, and Ulrich Beck. In the writings of Herbert Marcuse, the earlier focus of the Frankfurt School on positivist science is extended into a generalized indictment of a manipulated mass society shackled to ever-greater material consumption. Marcuse develops Adorno and Horkheimer's theme of the "totally administered world" and "the end of the individual" embodied in the decline of subjectivity.[5] Marcuse shows how the technological question emerges as one of the central contradictions of twentieth-century modernity through its simultaneous transformation of both external and inner (human) na-

ture. In *One-Dimensional Man* (1964), he draws together the ideas of Edmund Husserl, Gaston Bachelard, Freud, Marx, and other radical thinkers, into a provocative synthesis to expose the decline of freedom and creativity in the ostensibly stable postwar era.[6] For Marcuse, it is the remarkable continuities and similarities between fascism, capitalism, and state socialism that are striking as the technological and scientific problems of modernity appear to pervade all of these political systems. His emphasis on the increasingly dominant role of science and technology can be illustrated by the following passage:

> The principles of modern science were *a priori* structured in such a way that they could serve as conceptual instruments for a universe of self-propelling, productive control; theoretical operationalism came to correspond to practical operationalism. The scientific method which led to the ever-more-effective domination of nature thus came to provide the pure concepts as well as the instrumentalities for the ever-more-effective domination of man by man *through* the domination of nature. Theoretical reason, remaining pure and neutral, entered into the service of practical reason. The merger proved beneficial to both. Today, domination perpetuates and extends itself not only through technology but *as* technology, and the latter provides the great legitimation of the expanding political power, which absorbs all spheres of culture.[7]

We can identify a series of themes here central to the treatment of nature in critical theory: the interrelationship between the treating of both people and nature as mere instruments of destructive productivity; the mask of ethical neutrality behind which positivist science and technology extend their influence and control; the blurring of distinctions between scientific and practical reason (a tension to be extensively explored in the work of Habermas); and finally, the service of technology to capital accumulation, as all potential sources of human creativity and criticism are subsumed within consumer culture both for the creation of new markets and to extinguish any potential sources of opposition.[8]

There is clearly a tension in the work of the Frankfurt School between the idea that it is scientific epistemology itself that lies behind the destruction of nature and the differing view that the problem stems from the misapplication of science and technology. In this sense, the ideas of Marcuse lie much closer to radical ecocentrist strands of environmentalist thought than the subsequent writings of Habermas, Beck, and Feenberg, with their emphasis on the possibilities for rational discourse in order to democratize the applications of science

rather than the abandonment of existing epistemological approaches. The Marcusian perspective finds resonance with a number of ecological thinkers drawn from the post-Marxist left such as Murray Bookchin and André Gorz. Yet Marcuse's emphasis on human emancipation through ecological politics distances him from the more recent development of ecocentrist and deep ecology literature, which draws its inspiration not from radical humanism but from nature-based philosophies. The careful delineation of the boundary between the natural and the social in the work of Marcuse prefigures the concerns of Habermas with the distinction between the empirical-analytical systems of the physical and biological sciences and the hermeneutic realm of the lifeworld rooted in language.

Communicative Rationality and Environmental Ethics

In order to develop our understanding of the potential role of communicative rationality in the development of environmental ethics, I want to begin by exploring the avowedly anthropocentric stance of Jürgen Habermas. At an epistemological level, Habermas does not seek either a reconciliation with nature or a new approach to science. He envisages a dualistic distinction between instrumental rationality governing the nonhuman world of biophysical systems and communicative rationality governing social relations in the lifeworld. Habermas rejects Marcuse's view of science as predicated on a confusion between the objective manipulation of nature by labor and technology to satisfy human needs and the symbolic communicative sphere rooted in language. He therefore rejects the Marcusian contention that society cannot change without a transformation in science and technology. Habermas sees the scientization of politics as the transformation of practical reason (moral-political questions) into instrumental reason (technical questions).[9] For Habermas, the increasing scientization of politics over the modern period has led to the restriction of a deliberative democratic public sphere and the transfer of politics to technical and administrative elites promoting technical rather than political solutions to human problems. He is thus cautious of any naturalistic framework that elides fundamental differences between biophysical systems necessary for survival and socio-cultural communicative systems necessary for historical progression. This premise is based on his distinction between the natural sciences and the historical-hermeneutic sciences, between technical control (instrumental reason) and under-

standing (practical reason), in order to emphasize how the goal of social communication should be different from our relations with the natural world.

Habermas is clearly a defender of the modernity project and the changes in human relations with nature that this entails. He rejects the utopian aesthetic concerns of Adorno for the re-enchantment of the social and natural worlds, and moves the focus of his analysis to questions of social justice.[10] Habermas is not so much concerned with the instrumental reason of science under modernity as with the lagging development of the communicative and democratic public sphere.[11] The potential contribution of Habermas to environmental thought stems principally from his concerns with the scientization of the political process and the attempted depoliticization of the public sphere. The scientizing of environmental discourse can be seen as an attempted technical resolution of crises in the public sphere stemming from deep seated contradictions between democracy and modernity under the administrative apparatus of the state. An informed citizenry is increasingly marginalized in relation to an array of technical experts across diverse fields of concern ranging from the promotion of nuclear energy to the release of genetically modified organisms into the environment.[12] He presents us with a post-Cartesian epistemology distinguishable from both scientism and metaphysics, thus placing him apart from positivist technocratic strands of environmental thought and nature-based sources of understanding.

Given this philosophical stance, it is not surprising that the relationship between Habermas and the new social movements has been fraught with difficulty. He has, with the exception of feminism, characterized the ecology and antinuclear movements as defensive rather than emancipatory, as indicative of legitimation problems and the colonization of the lifeworld in advanced capitalist societies.[13] For Habermas, these counterinstitutional struggles from within the lifeworld are futile without any transformation of the structure of society:

> neo-populist protests only bring to expression in pointed fashion a widespread fear regarding the destruction of the urban and natural environment, and of forms of human sociability. There is a certain irony about these protests in terms of neoconservatism. The task of passing on a cultural tradition, of social integration, and of socialization require the adherence to a criterion of communicative rationalization occasions for protest and discontent (which) originate exactly when communicative action, centred on the reproduction and transmission of values and norms, are penetrated by a form of modernization guided by standards of economic and administrative rationality; however, those very spheres are dependent on quite different standards of rationalization—on the standards of what I would call communicative rationality.[14]

The environmental movement for Habermas is thus deeply contradictory in its relationship toward the outcome of modernity. It is on the one hand critical of the social and economic relationships that have facilitated its own emergence yet it remains unable to see beyond the circumstances of a partial modernity with its unequal penetration of rational discourse in public life. This contradiction is perhaps most intense in the field of risk where positivist scientific epistemologies are routinely used by the environmental movement in order to expose the epidemiological basis of threats to public health in conjunction with broader appeals against modernity *tout court*. If we disentangle environmental discourse, we find a complex medley of ethical and epistemological issues nowhere more confused than in the ecocentrist appeal to nature as a privileged source of invariant meaning. We can find many examples in the environmental literature where the critique of science and technology is conjoined with an ideologically ambiguous political agenda drawn from nature itself.[15] In other cases the science of ecology is extended to encompass all aspects of human society in an ahistorical socio-biological system amenable to control by an array of experts. In recent years, this "cybernetic hyperscientism" has been able to gain a degree of credibility through the manipulation of huge databases in sophisticated models of biophysical systems far in advance of the earlier attempts of the 1970s.[16]

The idea of ecology as a holistic metascience, a new "grand theory" based around "technocratic and dystopian fantasies of total administration" capable of directing human thought and action, remains influential across a wide spectrum of environmental thought, yet these ecologically based social theories rest on an overextension of the epistemologies of the natural sciences.[17] Habermas is skeptical of the possibility for rethinking the human relationship to nature because this entails a breakdown in rational scientific discourse and a retreat into metaphysics beyond the reach of the empirical-analytic sciences.[18] The tension between Habermas and the Green movement can be traced to his theoretical break from the negative dialectics of Adorno and Horkheimer and their goal of "reconciliation with nature." For Habermas, the idea of nature-in-itself is necessarily trapped within a transcendental framework and the search for ultimate origins: a Heidegger-

ian project rooted in a search for primordial and mythical ontologies with disturbing political implications for rational discourse.[19]

If Habermas is at such pains to formulate a version of communicative rationality that excludes any appeal to nonhuman nature, then what are the implications for environmental ethics? What might a nonpositivist communicative rationality actually mean for normative environmental discourse? If we take as a starting point the promotion of the public interest in the arena of health and quality of life, then communicative rationality can be argued to endorse a social and economic system that allows both the promotion of social justice and long-term environmental sustainability since human well-being and environmental quality can be demonstrated to be interrelated. This is in essence an extended notion of enlightened self-interest where an environmental ethic can be established without appeal to intrinsic values in nature. The argument that an underlying rational harmony exists between the interests of human and nonhuman nature now forms a key dimension to the debate over the role of humanism in environmental ethics.[20] In contrast, deep ecological perspectives have sought to dispense with humanism completely because of the implicit anthropocentric and utilitarian impulses. Questions concerning the sentience of nonhuman nature and the boundary of moral considerability have been extended by biocentric ethics to include trees, rivers, and geomorphological features.[21] The influential writings of Arne Naess and Warwick Fox, for example, lead us toward the normative and epistemological weaknesses of nature-based philosophical discourses that illuminate the concerns of Habermas with metaphysical ontologies.

It is certainly the case, however, that a strict epistemological division between society and nature may serve to exclude the ethical handling of nonhuman nature, rendering the protection of species and ecosystems that have no direct instrumental value problematic.[22] The relegation of nature to the empirical-analytic sciences in Habermas's philosophical schema necessarily excludes human relations with nature from the historical-hermeneutic sciences and ultimately fails to challenge narrowly instrumentalist views toward nature. His conception of ethics combines a contractual utilitarian dimension with a Kantian concern for intrinsic rights but does not extend to nonhuman nature.[23] The advent of environmental ethics and the extension of ethical consideration to nonsentient living things and ecosystems poses a fundamental challenge to existing utilitarian, Kantian, and contractarian views of ethics.[24] In the place of the focus on the individual

and his or her relations with others in society emerges an expanded notion of the self to encompass a wider biotic community of which we are a part. It is, however, the ontological limits to rational discourse that ultimately place the more radical variants of environmental ethics beyond the practical concerns of critical theory.

I want to place the ethical dimension to communicative rationality to one side for a moment in order to explore more closely the epistemological weaknesses in Habermas's conception of relations between society and nature. The possibilities for critical analysis of phenomena that lie at the boundary of natural and social systems are unnecessarily weakened by his strict demarcation of human and nonhuman forms of social interaction. This issue is raised by Bruno Latour, who finds the epistemological barrier to nature in Habermas's work to be nonsensical since these divisions are becoming increasingly blurred with every advance in medicine and genetics. There is a proliferation of "quasi-objects" entering the world, which are neither wholly natural or social:

> If anyone has ever picked the wrong enemy, it is surely this displaced twentieth-century Kantianism that attempts to widen the abyss between objects known by the subject on the one hand, and communicational reason on the other. . . . Habermas wants to make the two poles incommensurable, at the very moment when quasi-objects are multiplying to such an extent that it appears impossible to find a single one that more or less resembles a free speaking subject or a reified natural object.[25]

However, to focus our attention exclusively on the problematic way Habermas handles nature risks overlooking a central focus of his work: the defense of the modernity project against the rival post-Hegelian discourses of poststructuralism. Habermas is concerned to show how modernity can critically reassure itself as to its rationality in distinction to the "total critique of reason" drawn from the legacy of Nietzsche, Bataille, and Foucault and the metaphysical turn embodied in the writings of Heidegger and Derrida.[26] This brings us back to my central concern in this paper: the extent to which the ecological problems of modern societies can be solved by an extension of communicative rationality within society without necessitating new forms of interaction with, and understanding of, nature itself.

The most incisive contribution of Habermas to the environmental debate is his concern with the public sphere. He opens his major treatise on the topic with direct reference to the centrality of the idea

of "the public" in the development of Western thought and to its continued relevance to any understanding of contemporary political debate:

> The usage of the words "public" and "public sphere" betrays a multiplicity of concurrent meanings. Their origins go back to various historical phases and, when applied synchronically to the conditions of a bourgeois society that is industrially advanced and constituted as a social-welfare state, they fuse into a clouded amalgam. Yet the very conditions that make the inherited language seem inappropriate appear to require these words, however confused their employment.[27]

During the course of this work, Habermas explores the transformation of a critical public sphere into a manipulated consumer society and the concomitant weakening of public institutions vested in civil society. We can argue that the Habermasian ideal of some form of rational universal consensus is more conducive to ecological sustainability than individualist liberalism with its weakly defined public realm which has been so easily eroded under neoliberal public policy. Perhaps the most prominent exponent of these insights for environmental discourse is John Dryzek, who defines the public sphere as "the space in which individuals enter into discourse that involves mutual respect, openness, scrutiny of their relationship with one another, the creation of truly public opinion, and, crucially, confrontation with state power."[28] But what kind of public sphere for what kind of public policy is implied here? The Habermasian notion of a public sphere has been criticized from a number of quarters: by Marxists in terms of class, by feminists in terms of gender, by neoliberals in terms of ignoring private interests, and by poststructuralists for putting forward the very idea of a universal social consensus.[29] Thus Habermas is vulnerable to the charge of presenting a quasi-scientific, Eurocentric, and androcentric ideological position under the guise of universality and communicative solidarity.[30] The notion of a public interest expressed through a socially mediated response to environmental concerns is clearly more complicated than the Habermasian conception of communicative rationality will allow. In the absence of some kind of broad-based agreement over the truthfulness of scientific claims, it is difficult to see how public policy can effectively operate in the environmental arena. My contention in this paper is that in the absence of an appropriate forum or mechanism for reaching agreement over the ends and means of public policy we are left with an increasingly

market-led technocratic approach to environmental management where those concerns that do not readily contribute to capital accumulation or the quantitative logic of risk assessment and cost-benefit analysis will be eclipsed from environmental discourse. The centrality of the public sphere to environmental concerns stems from the practical need to find agreement over the extent of ecological problems and to develop the intricate social arrangements necessary for their resolution. Every human society both modern and premodern has developed ways of handling its relations to nature but under capitalist urbanization and the globalization of modernity the relationship has become increasingly difficult to sustain.

The Habermasian public realm reveals an underlying tension between ecology and modernity over which critical theory and radical environmentalism part company. Whereas Habermas seeks to defend and elaborate the Enlightenment project, Eckersley and the ecocentrists see the mastery of nature under modernity as an illusory and undesirable goal that denies the interdependence between social and biophysical systems.[31] Yet Eckersley's critique of critical theory is undermined by the weakness of her exploration of the tension between ecology and modernity and her insistence that instrumental reason is the primary cause of environmental destruction. Tim Hayward quite rightly points out that it is only by appreciating the contemporary divergence between Habermasian and poststructuralist readings of modernity that we can appreciate the underlying tensions between ecology and modernity obscured in Eckersley's naively "ecologistic" reading.[32] To question the rationality of positivist science and technocratic reason is not, therefore, to suggest the redundancy of the Enlightenment ideal of reason altogether. The most important question to emerge from the work of Habermas is whether there can be an ecological rationality derived from the full development of the communicative and democratic dimensions to social life. His faith in developing a communicative realm capable of handling developments in science and technology in the public interest rests ultimately on an anthropocentric vantage point in the interests of epistemological rationality. The work of Habermas is clearly distinguishable from two competing discourses on nature: first, that of technical mastery under the instrumental reason of positivist science; and second, the metaphysical irrationalist strand linking nineteenth-century romanticism with contemporary ecocentrist and deep ecological formulations. In the final analysis, however, Habermas's conception of communicative rationality remains insufficiently developed to realize its potential role

in the development of an environmental ethic within a reformulated modernity. His notion of a public sphere is too restrictive in relation to both nature and social difference to take account of the extensive interweaving of nature and culture in contemporary society.

Ecology and the Reconfiguration of Modernity

I want to turn now to the contemporary handling of the ecological question in critical theory and draw on the pathbreaking work of Ulrich Beck. Though Beck cannot properly be placed within the central canon of critical theory, his work represents in many ways a logical extension and development of themes prefigured in the earlier writers of the Frankfurt School. Of particular interest here is Beck's elaboration of the critique of scientism and his challenge to the "organized irresponsibility" of contemporary society.[33] He draws attention to critical new developments such as the human genome project where life itself is now under greater technical mastery than anything envisaged in the time of Adorno or Horkheimer. Beck warns of a process of "eugenics by stealth," as genetics may ultimately displace social policy as an interrelated nexus of technical mastery and control. The question of rationality is thus brought to center stage, since "it is not an excess of rationality, but a shocking lack of rationality, the prevailing irrationality, which explains the ailment of industrial modernity. It can be cured, if at all, not by a retreat but only by a radicalization of rationality, which will absorb the repressed uncertainty."[34] Beck is thus concerned with the ecological consequences of modernity but suggests that we must work from within the modernity project itself. In this respect we can distinguish Beck from the ecocentrist environmentalists who argue for an abandonment of Enlightenment rationality in order to tackle the environmental crisis. As in the case of Habermas, we can differentiate between Beck's insistence on the need for a normative rationality and the ecocentrist search for innate sources of meaning residing within nature itself. Unlike Habermas, however, Beck seeks to abandon the increasingly false dichotomy between nature and society, which pervades so much of the environmental literature.

In *Risk Society*, first published in 1986, Beck shows how the productivist logic of industrial modernity systematically neglects and ignores associated risks from sources such as nuclear technologies, genetic engineering, manufacture of toxins, and climate change. He

elaborates the metaphor of risk to show how society is now confronted by itself under a condition of "reflexive modernity" in contrast to the earlier largely external sources of risk prevalent in premodern societies: "the sources of danger are no longer ignorance but *knowledge*; not a deficient but a perfected mastery over nature. . . . Modernity has taken over the role of its counterpart—the tradition to be overcome, the natural constraint to be mastered. It has become the threat *and* the promise of emancipation from the threat it creates itself."[35]

For Beck, the transformation of the political process in risk society has several interrelated elements. First, there is a disjunction between the processes of societal transformation and the restricted arenas of political discourse, marked by a crisis of governance in existing political institutions. In the sphere of science and technology, the increasing severity of risk undermines rationality in public policy leading to a widening gap between state authority and the democratic awareness (and expectations) of citizens. This disintegration of politics is marked by the declining legitimacy of state intervention and occurs in the midst of a growing political challenge to scientism and technological rationality. Thus the unraveling of any harmony between social and technological progress emerges as a central theme in Beck's risk society and is fundamental to the rise of the new social movements with their destabilizing impact on the postwar consensus.

Second, as an outcome of these changing relationships there is a reversal of political and nonpolitical realms, as the relative disempowerment of the state and established areas of public policy is accompanied by the extension of the political process into what Beck refers to as "the sub-political system of scientific, technological and economic modernization."[36] The locus of political power shifts decisively from the state and political parties to the boardroom, the research laboratory and the grassroots arena of "sub-politics," thus unraveling the administrative dimensions to the "one-dimensional society" of the postwar era and signaling the emergence of a society ever more remote from the classic conception of a liberal public sphere within which civil society has the opportunity to deliberate over matters of public concern. Phenomena of increasing ungovernability and the hollowing out of the state lie in juxtaposition with the increasing severity and complexity of the social and ecological consequences of late capitalism. Uncertainty emerges as the political and cultural counterpart to economic flexibilization in the post-Fordist era. Existing patterns of interest and political alliances are placed in a state of flux as the distribution of winners and losers shifts in industrial risk society: the

ecological contradictions of capital become ever more intense as the "invisible hand" becomes an "invisible saboteur" of investments and profits.[37]

This inherent instability of risk is intensified under pressures for greater environmental deregulation. Consider the example of the spread of BSE (bovine spongiform encephalopathy), better known as "mad cow disease," through the British beef industry over a period of some sixteen years due to the deregulation of intensive food production. The outcome has been a dramatic disarray in U.K. agriculture, with the interests of producers and consumers brought into direct conflict with each other. In the face of increasing numbers of human deaths from a BSE-related form of CJD (Creutzfeldt-Jakob Disease) attributed to infected meat, the parameters of uncertainty and risk now extend to a public health epidemic in combination with fiscal chaos arising from the mass slaughter of cattle and loss of trade. The issues of rationality in public policy and the regulation of technological developments are brought to center stage as beef consumption throughout Europe has been adversely affected. We are faced with a public health crisis that is simultaneously derived from the modification of nature by human agency, the market-led deregulation and restructuring of food production, and the social and cultural responses to risk. At an epistemological level we are in a realm that cannot be neatly demarcated in the Habermasian sense, nor left to the exigencies of positivist risk assessment and relativist cultural constructivism. The extensive public disagreement among scientists and experts underlies the problematic status of "truth" in environmental discourse and exposes the current inadequacy of the scope for public deliberation and understanding of these issues.

For Beck, the increased questioning of scientific truth claims since the 1970s stemming from concern over the deleterious impact of science and technology is in effect a radicalized challenge to positivist science in order to build a more defensible scientific rationality. In the place of scientific certainty emerges explicit recognition of the socially negotiated dimensions to truth with far-reaching implications for policy making and the relationship between science and society. Beck articulates a postpositivist perspective on science and technology in dialectical relation to itself, where the internal divisions and disarray of experts within science become ever more advanced. He provides a post-Chernobyl critique of instrumental reason developed to encompass the consequences of increased risk in relation to the narrowly defined notions of modern rationality and self-interest:

> Political development in hazard civilization is approaching the crucial issue of the redistribution and democratic shaping of the principles, rules and foundations of the power to define terms: different relations of proof, different relations of restraint, different relations of control and guidance, different relations of participation in decision-making. . . . The character of industrial society is such that its momentum contradicts self-determination, as fatalism contradicts democracy, and organized non-liability contradicts rationality and justice.[38]

Beck is suspicious of any drift towards an ecological welfare state because of the persistence of antidemocratic tendencies inherent in centralized administrative structures. Indeed, he sees the declining relevance and legitimacy of the state as a fundamental dimension to the "incomplete modernization" of society. Yet this is not the antistatist sentiment of right-wing ecologism but rather the recognition that a completely new regulatory regime is vital, within which the role of law is crucial in mediating between members of an increasingly heterogeneous society in the absence of mass political parties and clearly defined programmatic agendas for change. Beck echoes the desire of Habermas for the creation of conditions in civil society within which a rational consensus through democratic deliberation can be reached. As Michael Rustin puts it, "Beck evokes the possibility of a fully conscious, rational society, able to take full responsibility for its development and for its relationship with nature."[39] Full modernity is therefore conceived as a condition that has not yet arrived and should not be confused with transitional and much-maligned phases of social development such as the high modernity of Fordist technocracy or the high-rise housing fiascos associated with the International Style in architecture. It is only under full modernity that both the natural and social worlds can be brought "within the spheres of understanding and choice," and allow the world to be shaped by human reason.[40]

The concepts of "risk society" and "reflexive modernization" may appear superficially persuasive. But is Beck's conception of "full modernity" naively at odds with current patterns of social and economic change? Beck's writings display a tendency toward a pluralist view of political conflict in his lack of acknowledgment of systematic inequalities in the distribution of power between different institutions. This is related to a micro-political bias and a tendency toward an individualized conception of social processes suggested by his contention that "the microcosm of daily behaviour and dealings with oneself and others corresponds to the macrocosm of threat production."[41]

Likewise, his writings on the "metamorphosis of the state" suggest that the main alternative centers of power lie in the proliferation of self-organized interest groups at the "sub-political" level.[42] Though Beck rightly admonishes simplistic *post histoire* conceptions of society as having reached "the end of history," his work does display a tendency toward a teleological and technologically driven notion of "post-industrial society" predicated on his extensively employed contrast between "classical risk society" and "industrial risk society."

In arguing that the "compulsory union of industrial society and modernity can be broken," Beck is implicitly restricting the spatial scope of his analysis to technological developments in the core economies of the West, thereby overlooking the spatial restructuring of economic production at a global level.[43] Beck calls for "the totality of bureaucratic-industrial-political supremacy" to be placed at the center of an oppositional politics but never demonstrates how such a realignment in political conflict might occur or how it would alter the trajectory of social and economic development. There is an all-pervading focus on what is variously referred to as "techno-scientific rationality" or "technocracy" rather than on the institutional power of capital, thus overemphasizing the ideological strength of science and technology in relation to the cultural hegemony of capital. Yet this concept of "techno-science" in environmental discourse blurs the distinction between the pervasive use of new technologies in everyday life and the relatively hidden realm of scientific research. In the writings of Andrew Feenberg, for example, we find a reworking of the utopian sentiments of the early Frankfurt School rooted in a critique of the role of capital in distorting the potentially liberatory role of technology in society.[44]

A similar theme is developed by William Leiss, another inheritor of the early Frankfurt School tradition, who emphasizes the need to resist a fatalistic "technological fetishism," which undermines the need to make reasoned choices about societal development.[45] Leiss describes how Western "scientific culture" acts as a powerful ideological link between the natural sciences and popular aspirations for material well-being. Yet this "techno-scientific" material promise of a better life is predicated on a universalization of dominion over nature and the generalized wastage of materials and resources.[46] Leiss invokes a Marcusian concern with the recovery of the sensual side to nature and human well-being yet is careful to resist any drift into nature-based rationalizations of social relations. It is at the political level, however, that the starkest differences between Beck's technological preoccupations and these alternative readings of critical theory become most clearly apparent.

The downplaying of the role of capital in Beck's analysis undermines his handling of the state and environmental regulation. In relegating the welfare state to the discarded baggage of industrial modernity, he exhibits a certain ambiguity with regard to socioeconomic restructuring and a reluctance to acknowledge both the primacy of the needs of capital in this process and, conversely, the undermining of the public realm in key areas such as education, research, health, and environmental protection. In other words, he has little to say about what the postwelfarist world might look like and whether it significantly advances his goal of a new modernity. Beck neglects to consider whether the scientization of politics can be conceived as part of a broader process of state restructuring where government functions are removed from the democratic arena in order to facilitate greater fiscal control over expenditure. He pays scant regard to the regulatory structures that are needed to tackle complex international problems such as the export of toxic waste, nuclear proliferation, and climate change and neglects to examine the historical dimensions to environmental regulation in any detail. Beck's widely repeated dictum that "poverty is hierarchical, while smog is democratic" ignores wide and growing sociospatial inequalities in environmental quality.[47] These have been extensively exposed by the growth of the environmental justice movement in the 1990s in opposition to the "toxic industrial spaces" of late capitalism arising from the increasing spatial concentration of environmental externalities under the postwar legislative drive of environmental regulation.

Consider, for example, the intense concentration of polluting industries along the so-called Cancer Alley between New Orleans and Baton Rouge, where poor communities have been faced with high incidences of cancer, birth defects, and miscarriages.[48] Beck's assertion that industrialization means both wealth *and* proximity to industrial hazards clearly oversimplifies the spatial distribution of risk.[49] With the emergence of radical environmental groups across the United States such as the Gulf Coast Tenants Leadership Association, the Mothers of East Los Angeles, and the South Bronx Clean Air Coalition, the contours of power in corporate decision making and state regulation become exposed as the sites of resistance to environmental degradation in capitalist society. The inequalities by race, class, gender and age that determine exposure to risk and poor environmental quality are brought to the fore in environmental discourse. In Beck's "indus-

trial risk society," however, it is difficult to discern where conflicts of interest lie since his work tends to downplay the significance of grassroots political struggles in the workplace or community in favor of a more abstract focus on fear and doubt in society as a whole. In arguing that "the tradition of intervention and resistance has wasted away," he is subsuming the demise of Marxist thought with the disappearance of political activity in his own *post histoire* account of contemporary social change.[50]

The most important insights to emerge from the work of Beck stem from his recognition of the fundamentally altered nature of the relationship between society and nature under late modernity. Beck's work provides an important advance on Habermas in that he recognizes the need to find an epistemological middle ground between what he terms the scientific and technical recognition of environmental threats and the "cultural and symbolic mediation of the consciousness of threat."[51] Beck presents us with a plea for an environmental ethic where the tension between rationality and irrationality is embodied in a recognition of both the consequences and opportunities of modernity. The unresolved question to emerge from his analysis is how the pervasive sense of doubt under the irrationality of reflexive modernization can be transformed into an "ecological Enlightenment" in the face of sustained opposition from the powerful interests who have benefited from the unequal distribution of risk.

Conclusion

The dominant tension running through Western intellectual debates since the early 1980s has been between the possibilities for a reformulated modernity and a complete abandonment of the Enlightenment project. If we reconsider this hiatus from an ecological perspective, there is a clear distinction between the ecocentrist rejection of modernity and the Habermasian concern with the relative imbalance between the realms of science and communicative rationality. Though there are epistemological weaknesses in relying on a Habermasian conception of nature, this does not detract from the normative significance of his writings on the public sphere. All the most significant and important advances in relations between society and nature have been rooted in the articulation of a public good above and beyond any narrowly conceived notions of self interest. Perhaps the ultimate paradox of the tensions between ecology and modernity is that while one can point to

many very real achievements (I am thinking here especially of advances in the fields of medicine and public health), the overall trajectory of social change in recent decades has been overwhelmingly inimical to the long-term stability of life sustaining biophysical systems. This suggests that in any meaningful discussion of the relations between ecology and modernity we need to clarify the contradictory and diverse impulses within modernity itself in order to distinguish between its constituent elements as they span across science, technology, capital, and ideology. This involves the recovery of a modernity rooted in the realization of human potential and the affirmation of life over death: a radical reworking of the discourses of "nature" to affirm the sensuality and pleasures of existence.[52] At a political level, such a project necessarily demands a disengagement of human satisfaction from the technomilitary complexes that sustain the vapid inducements of consumer capitalism.[53] An ecological agenda that refuses to engage with the crisis of modernity ignores the very forces that propel the possibilities for change: there is no way back to the illusory space and time of a premodern "golden age."

If contemporary critical theory is essentially concerned with establishing the basis for a reformulated modernity, then where does this leave the question of political praxis in environmental discourse? Radical environmentalists have charged critical theorists with providing an overly abstract model of society, within which an anthropocentric instrumental reason is perpetuated. Although there is certainly a strong case for the reexamination of environmental ethics for the treatment of nonhuman nature within critical theory, this does not justify an abandonment of any emphasis on the need for a revitalized public realm. If we reexamine the main tension within environmental ethics between anthropocentric and biocentric conceptions of relations with nature, we find that critical theory opens up the possibility of an environmental ethic that remains rooted in social practice yet enables a critical perspective on technocratic attitudes toward nature through the critique of positivism, scientism, and instrumental reason. Yet our understanding of the relationship between communicative rationality and environmental ethics leaves many unresolved questions. How, for example, can any consensus over ecological rationality be reached in the face of not only the ideological power of consumer culture but also the increasing individualization and globalization of society? How can the socialization of nature be epistemologically handled in order to provide a degree of normative adequacy for environmental ethics? Does ecological rationality imply little more than a more sophisticated

variant of "enlightened self-interest" in environmental ethics? Or can we conceive of ecological rationality as a fundamental challenge to mainstream environmental discourse?

It is undoubtedly the case that critical theory has had less impact on environmental debate than one might expect given the scope of its intellectual heritage. I would suggest that part of the reason for this hiatus between theory and praxis concerns the problematic status of post-Marxist theory within the context of a widening gap between the radical academy and the rest of society. A body of ideas that combines abstract thought in the structuralist tradition with a total critique of existing society is difficult to reconcile with the demands of positivist "relevance" in academic research or the relativist disdain for normative theorizing. One hopes, however, that the potential form of a new modernity will be forged as much in the world of ideas as in the realm of practical action. It is perhaps only through the stubborn refusal of this legacy of intellectual thought to accommodate itself either to academic fashion or to neoliberal *zeitgeist* that the enduring insights of this tradition will contribute to the difficult work of delineating the epistemological and ethical basis of a modernity freed from both the false claims of positivist science and the search for "new certainties" in nature.

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Notes

1. In order to clarify the scope of this paper, I should set out what I mean by critical theory. We can distinguish between two main uses of the term: first, to refer specifically to the work of writers associated with the Frankfurt Institute for Social Research; and second, in a broader sense to a wide-ranging European Marxist tradition placing greater emphasis on cultural and aesthetic issues than in Marx's original writings. A primary concern of the Frankfurt School has been the interdisciplinary extension of Marxism in conjunction with a critical response to the changing circumstances of capitalist society for social and political transformation. Central to this aim has been the attempted reconciliation between Western philosophical traditions and new advances in the empirical sciences. For general overviews of the genesis of the Frankfurt School see M. Jay, *The Dialectical Imagination: A History of the Frankfurt School and the Institute of Social Research 1923–50* (London: Heinemann, 1973); S. Buck-Morss, *The Origin of Negative Dialectics* (New York: Free Press, 1977); T. Bottomore, *The Frankfurt School* (Ellis Horwood: Chichester, 1984); A. Feenberg, *Lukacs, Marx and the Sources of Critical Theory* (Oxford: Oxford University Press, 1986); R. Wiggerhaus, *Die Frankfurter Schule* (Munich: Hanser, 1986); and D. Kellner, *Critical Theory, Marxism, and Modernity* (Cambridge and Baltimore: Polity and Johns Hopkins University Press, 1989).

2. The term "communicative rationality" requires some clarification. I use the word "rationality" here to refer to social practice rather than to specific forms of logic or cognition. When the term is used in reference to social practice, we can distinguish between restrictive uses based around ideas of self-interest such as "rational economic man" and more complex applications rooted in linguistic communication where there is an incorporation of ethical or moral dimensions to judgment. The emphasis here is on rationality as open to negotiation and historically constructed rather than an innate determinant of human interaction in atomized and ahistorical conceptions of society. Ecological rationality is especially complex because it combines a series of tensions between individuals, society, and nature mediated by social difference and intersubjective understanding. For the purposes of this paper, I restrict my discussion of ecological rationality to redressing the destructive relations between society and nature as they have evolved under Western modernity. For recent expositions on the Habermasian conception of communicative rationality and the implications for democratic practice, see T. F. Murphy, III, "Discourse Ethics: Moral Theory or Political Ethic," *New German Critique* 62 (1994): 111–137; and S. Chambers, "Discourse and Democratic Practices," in *The Cambridge Companion to Habermas,* ed. S. K. White (Cambridge: Cambridge University Press, 1995), 233–259.

3. Although the principal focus of this chapter is on the postwar period, we can find examples of the Frankfurt School's concern with ecological issues before the publication of *Dialectic of Enlightenment* (London: Verso, [1947] 1979). See the early essays of Max Horkheimer contained in the recently published collection (M. Horkheimer, *The Eclipse of Reason* [New York: Continuum, 1992]).

4. R. Eckersley, *Environmentalism and Political Theory* (London: UCL Press, 1992), 101–3.

5. D. Kellner, "Introduction," in *One Dimensional Man,* 2d ed., by H. Marcuse (London: Routledge, 1991), xxii.

6. H. Marcuse, *One Dimensional Man,* 2d ed. (London: Routledge, [1964] 1991).

7. H. Marcuse, "Ecology and the Critique of Modern Society," *Capitalism, Nature, Socialism* 3 ([1979] 1992): 29–48, quote 158, emphasis in original.

8. Some qualification is required over the use of the term positivism, which has a variety of potential meanings and applications. There are two main ways in which positivist doctrine has influenced environmental discourse: first, the promotion of a unified epistemological framework for nature and society based on the extension of the methodologies of the natural sciences; and second, the axiological tenet of scientific neutrality and value-freedom that pervades the environmental sciences. Jürgen Habermas and the intellectual legacy of critical theory have played a key role in developing the critique of positivism since the 1960s, but as I argue in this paper, his epistemological separation between nature and society is so abrupt as to limit its potential applicability for the advancement of environmental understanding. Though positivism has now been largely discredited as a coherent philosophical doctrine, it is still a useful term by which to highlight the misapplication of scientific method in the explanation of social phenomena.

9. W. Outhwaite, *Habermas: A Critical Introduction* (Stanford: Stanford University Press, 1994), 21-22.

10. J. M. Bernstein, *Recovering Ethical Life: Jürgen Habermas and the Future of Critical Theory* (London: Routledge, 1995), 29.

11. See J. Habermas, *The Theory of Communicative Action: vol.1, Reason and the Rationalization of Society* (London: Heinemann, [1981] 1984); J. Habermas, *The Theory of Communicative Action: vol. 2, The Critique of Functionalist Reason* (Cambridge: Polity Press, [1981] 1987); A. Honneth, and H. Joas, eds., *Communicative Action,* trans. J. Gaines and D.L. Jonas (Oxford: Polity Press, 1991).

12. See R. Kemp, "Planning, Public Hearings, and the Politics of Discourse," in *Critical Theory and Public Life,* ed. J. Forester (Cambridge, Mass.: MIT Press, 1985), 177–201.

13. Outhwaite, *Habermas,* 106.

14. J. Habermas, "Modernity versus Postmodernity," trans. S. Ben-Habib, *New German Critique* 22 (1981): 3–14.

15. See K. Soper, *What is Nature? Culture, Politics and the Non-Human* (Oxford: Blackwell, 1995).

16. U. Beck, *Ecological Politics in an Age of Risk* (Cambridge: Polity Press, [1988] 1995), 40.

17. A. Feenberg, *Alternative Modernity: The Technical Turn in Philosophy and Social Theory* (Berkeley: University of California Press, 1995), 222.

18. T. W. Luke, and S. K. White, "Critical Theory, the Informational Revolution, and an Ecological Path to Modernity," in *Critical Theory and Public Life* , ed. J. Forester (Cambridge, Mass.: MIT Press, 1985), 22–57.

19. J. Habermas, *The Philosophical Discourse of Modernity: Twelve Lectures* (Cambridge: Polity Press, [1985] 1987).

20. T. Hayward, *Ecological Thought: An Introduction* (Oxford: Polity, 1994).

21. On the extension of moral consideration in biocentric ethics, see R. Attfield, "The Good of Trees," *Journal of Value Inquiry* 15, (1981): 35–54; A. Brennan, "The Moral Standing of Natural Objects," *Environmental Ethics* 6 (1984): 35–56; and P. Taylor, *Respect for Nature: A Theory of Environmental Ethics* (Princeton, N. J.: Princeton University Press, 1986).

The environmental ethics literature has tended to be preoccupied with the impact of anthropocentrism on nature. More recently, however, a well-developed defense of the role of anthropocentrism in environmental ethics has emerged as part of a more nuanced critique of instrumentalist attitudes toward nature (see M. Sagoff, *The Economy of the Earth: Philosophy, Law, and the Environment* [Cambridge: Cambridge University Press, 1988]; B. Norton, *Towards Unity Among Environmentalists* [Oxford: Oxford University Press, 1991]; Soper, *What is Nature?*).

22. T. McCarthy, *The Critical Theory of Jürgen Habermas*. (Boston, Mass.: MIT Press, 1978); C. Alford, *Science and the Revenge of Nature: Marcuse and Habermas* (Tampa and Gainsville: Florida University Press, 1985).

23. S. Benhabib, and F. Dallmayr, eds., *The Communicative Ethics Controversy* (Cambridge, Mass.: MIT Press, 1990).

24. J. O'Neill, *Ecology, Policy and Politics: Human Well-Being and the Natural World* (London: Routledge, 1993).

25. B. Latour, *We Have Never Been Modern,* trans. Catherine Porter. (New York: Harvester Wheatsheaf, [1991] 1993), 60.

26. N. Smith, "The Spirit of Modernity and its Fate: Jürgen Habermas," *Radical Philosophy* 60 (1992): 23-29.

27. J. Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, trans. T.Burger (Cambridge: Polity Press, [1962] 1989), 1.

28. J. Dryzek, "Ecology and Discursive Democracy: Beyond Liberal Capitalism and the Administrative State," *Capitalism, Nature, Socialism* 3 (1992): 18–42; see also J. Dryzek, *Rational Ecology: Environment and Political Economy* (New York: Blackwell, 1987).

29. Outhwaite, *Habermas,* 11. See also N. Fraser, "What's Critical about Critical Theory? Habermas and Gender," in *Feminism as Critique: Essays on the Politics of Gender in Late-Capitalist Societies,* ed. S. Ben-habib, and D. Cornell (Cambridge: Polity, 1987), 31–56; I. M. Young, *Justice and the Politics of Difference* (Princeton, N. J.: Princeton University Press, 1990); C. Calhoun, *Habermas and the Public Sphere* (Cambridge, Mass.: MIT Press, 1992); and D. Gregory, *Geographical Imaginations* (Oxford: Blackwell, 1993).

30. Smith, "The Spirit of Modernity," 28.

31. Eckersley, *Environmentalism and Political Theory,* 112.

32. Hayward, *Ecological Thought,* 46.

33. Beck, *Ecological Politics,* 2.

34. U. Beck, A. Giddens, and S. Lash, eds., *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order* (Oxford: Polity Press, 1994), 33.

35. U. Beck, *Risk Society: Towards a New Modernity* (London: Sage, [1986] 1992), 183, emphasis in original.
36. Beck, *Risk Society,* 186.
37. Beck, *Ecological Politics,* 8.
38. Beck, *Ecological Politics,* 182–83.
39. M. Rustin, "Incomplete Modernity: Ulrich Beck's *Risk Society,*" *Radical Philosophy* 67 (1994): 3–11, quote 4.
40. Rustin, "Incomplete Modernity," 7.
41. U. Beck, *Ecological Enlightenment: Essays on the Politics of Risk Society,* trans. Mark Ritter (Atlantic Highlands, N. J. : Humanities Press, [1991] 1995), 14.
42. Beck et al., *Reflexive Modernization.*
43. Beck, *Ecological Politics,* 183.
44. See A. Feenberg, *Critical Theory of Technology* (Oxford: Oxford University Press, 1991); Feenberg, *Alternative Modernity;* and S. Helsel, "The Dialectic of Capitalist Technology," *New German Critique* 60 (1993): 161–169.
45. W. Leiss, *Under Technology's Thumb* (Montreal: McGill-Queen's University Press, 1990); 5.
46. Leiss, *Under Technology's Thumb,* 75; see also W. Leiss, *The Domination of Nature* (New York: George Braziller, 1972); and W. Leiss, *The Limits to Satisfaction: An Essay on the Problem of Needs and Commodities* (Montreal: McGill-Queen's University Press, 1988).
47. Beck, *Ecological Enlightement,* 60.
48. See P. H. Templet, and S. Farber, *The Complementarity Between Environmental and Economic Risk: An Empirical Analysis* (Baton Rouge: Louisiana State University Institute for Environmental Studies, 1992); US Environmental Protection Agency, *Toxic Release Inventory & Emissions Reductions 1987–1990 in the Lower Mississippi River Industrial Corridor* (Washington, D. C.: Environmental Protection Agency Office of Pollution Prevention and Toxics, 1993).
49. Beck, *Ecological Politics,* 56.
50. Beck, *Ecological Politics,* 7.
51. Beck, *Ecological Enlightenment,* 129.
52. Marcuse, "Ecology and the Critique of Modern Society"; Soper, *What is Nature?*
53. See D. Kellner, *The Persian Gulf TV War* (Boulder, Col.: Westview Press, 1992).

Critical Questions in Environmental Philosophy

Annie L. Booth

Aldo Leopold once wrote, "There are some who can live without wild things, and some who cannot."[1] Those who understand the truth in that statement are often compelled to seek solutions to the environmental problems that are leading us to that day when wild things will disappear. The field of environmental ethics is a possible source of those solutions. There is a two-thousand-year history of environmental law and policy, and two thousand years of partial success.[2] It became clear to many that an essential component was missing: an understanding of how people, at the individual and cultural level, understood the natural world and their relationships with it. This is the premise at the center of ecological philosophy.

That the human-natural world intersection is vital has for many become a given. So, too, is the contention that the natural environment and human communities are facing potentially fatal disturbances. That we need to change the ways we go about our lives is also a recognition no longer confined to obscure journals. Thus, the field of environmental ethics, or environmental philosophy, has experienced a huge growth in interest in recent years, not just in academic circles but among a concerned public and increasingly among government agencies and industries.

In the rush to consider new ways of problem solving, it is tempting to overlook critical problems developing in the ideas under consideration. This article examines some of the key problems developing in two related but distinct branches of environmental ethics: bioregionalism