The Dialectics of Social and Environmental Change

1. Political Values and Environmental–Ecological Issues

One of the more interesting exercises to undertake in enquiring into the environmental–ecological debate, is to inspect arguments not for what they have to say about the environment or nature, but for what it is they say about political–economic organization. In so doing, an impressive array of alternative social forms are invoked as seemingly “necessary” to solve the issues at hand, along with an extraordinary display of disparate culprits and villains needing to be overthrown if our present ecodrama is to have a happy rather than tragic ending. “Environmentalists,” notes Paehlke (1989: 194), not only “occupy almost every position on the traditional right-to-left ideological spectrum,” but also can adapt to diverse political positions while simultaneously claiming they are beyond politics in the normal sense. Again and again, “the authority of nature and her laws” is claimed either to justify the existing condition of society or “to be the foundation stone of a new society that will solve ecological problems” (Grundmann, 1991b: 114). What is often at stake in ecological and environmentalist arguments, Williams (1980: 71) suggests, “is the ideas of different kinds of societies.”

Part of the problem here is that environmental–ecological arguments, precisely because of their diversity and generality, are open to a vast array of uses to which environmentalists and ecologists would almost certainly object. Their rhetoric gets mobilized for a host of special purposes, ranging from advertisements for Audi cars, toothpastes and supposedly “natural” flavors (for foods) and “natural” looks (mainly for women) to more specific targets of social control and investment in “sustainable development” or “nature conservation.” But the other side of that coin is that ecologists and to some degree even environmentalists of a more managerial persuasion, tend to leave so many loopholes in their arguments, litter their texts with so many symptomatic silences, ambiguities, and ambivalences that it becomes almost impossible to pin down their socio-political programs with any precision even though their aim may be “nothing less than a non-violent revolution to overthrow our whole polluting, plundering and materialistic industrial society and, in its place, to create a new economic and social order which will allow human beings to live in harmony with the planet” (Porritt and Winner, cited in Dobson, 1990: 7).

My intention in what follows is not to provide some firm classification or indeed to engage in critical evaluation of any particular kind of politics (all of them are open to serious objections), but to illustrate the incredible political diversity to which environmental–ecological opinion is prone.

Authoritarianism

Ophuls (1977: 161) writes: “whatever its specific form, the politics of the sustainable society seem likely to move us along the spectrum from libertarianism towards authoritarianism” and we have to accept that “the golden age of individualism, liberty and democracy is all but over.” Faced with escalating scarcities, Heilbroner (1974: 161) likewise argues, there is only one kind of solution: a social order “that will blend a ‘religious’ orientation and a ‘military’ discipline [that] may be repugnant to us, but I suspect it offers the greatest promise for bringing about the profound and painful adaptations that the coming generations must make.” While their personal commitments are overtly liberal (and in Heilbroner’s case social democratic) both authors reluctantly concede the necessity of some kind of centralized authoritarianism as a “realistic” response to natural resource limits and the painful adaptations that such limits will inevitably force upon us. In the case of the strongly Malthusian wing of the ecological movement, and Garrett Hardin is probably the best representative, the appeal to authoritarian solutions is explicit as the only possible political solution to the “tragedy of the commons.” Most of the writing in this genre presumes that resource scarcities (and consequent limits to growth) and population pressure lie at the heart of the environmental–ecological issue. Since these issues were paramount in the early 1970s, this style of argument was then also at its height. In recent years, however, “authoritarian solutions to the environmental crisis have been abandoned by the movement” (Dobson, 1990: 26). But there is almost always an authoritarian edge somewhere in ecological politics.

Corporate and State Managerialism

A weak version of the authoritarian solution rests upon the application of techniques of scientific–technical rationality within an administrative state armed with strong regulatory and bureaucratic powers in liaison with “big” science and big corporate capital. The centerpiece of the argument here is that our definition of many ecological problems (e.g., acid rain, the ozone hole,
global warming, pesticides in the food chain, etc.) is necessarily science led and that solutions equally depend upon the mobilization of scientific expertise and corporate technological skills embedded within a rational (state-led) process of political–economic decision making. “Ecological modernization” (Hajer, 1992; Weale, 1992: chapter 3) is the ideological watchword for such a politics. Conservation and environmental regulation (at global as well as at national scale) would here be interpreted as both rational and efficient resource management for a sustainable future. Certain sectors of corporate capital, particularly those which stand to benefit from providing the technology necessary for global monitoring of planetary health, find the imagery of global management or “planetary medicine” very attractive, for example (see below, chapter 13).

Pluralistic Liberalism

Democratic rights and freedoms (particularly of speech and opinion) are sometimes regarded as essential to ecological politics precisely because of the difficulty of defining in any omniscient or omnipotent way what a proper environmental–ecological policy might be and what particular values should be brought to bear in discussing environmental issues. Open and perpetual negotiation over environmental–ecological issues in a society where diverse pressure groups (such as Greenpeace) are allowed to flourish is seen as the only way to assure that the environmental issue is always kept on the agenda. Whoever wants to speak for or about “nature” can, and institutions are created (such as environmental impact statements and environmental law) to permit contestation over the rights of trees and owls. Consensus about environmental issues, and therefore the best bet for environmental protection, can best be reached only after complex negotiation and power plays between a variety of interest groups. But consensus is at best only a temporary moment in a deeply contested and pluralistic politics concerning the values to be attributed to nature and how to view ecological change.

Conservatism

In some of the ecological literature on the principle of prudence and respect for tradition plays a leading role. Human adaptations to and of natural environments have been arrived at over centuries and should not be unnecessarily disturbed. Conservation and preservation of existing landscapes and usages, sometimes argued for by explicit appeal to esthetic judgments, give such a framework a conservative ring (see, for example, Collingwood, 1960). But arguments of this sort have a radical edge. They can be strongly anti-capitalistic (against development) and, when placed in an international setting, they can also be strongly anti-imperialistic. Tradition ought presumably to be respected everywhere, so that all-out modernization is always regarded as problematic. Considerable sympathy can then be extended towards, say, indigenous peoples under siege from commodification and exchange relations. All of this has its romantic side, but it can also produce a hard-headed politics of place that is highly protective of a given environment. The issue is not nonintervention in the environment, but preservation of traditional modes of social and environmental interaction precisely because these have been found to work, at least for some (usually but not always elite) groups. The preservation of the political power and values of such groups is just as important here, of course, as environmental considerations.

Moral Community

The complex issues which arise when ideals of “moral community” are invoked have already been examined. Many “communities” evolve some rough consensus as to what their moral obligations are with respect to modes of social relating as well as to ways of behaving with respect to the “rights of nature” (see Nash, 1989). While often contested, by virtue of the internal heterogeneity of the community or because of pressures towards social change, these moral precepts concerning, for example, the relation to nature (expressed increasingly in the field of “environmental ethics”) can become an important ideological tool in the attempt to forge community solidarities (e.g., nationalist sentiments) and to gain empowerment. This is the space, par excellence of moral debate (see, for example, Attfield, 1991) on environmental issues coupled with the articulation of communitarian politics and values that center on ideals of civic virtues. A virtuous relation to nature is closely tied to communitarian ideals of civic virtues.

Ecosocialism

While there is a definite tendency in socialist circles to look upon environmentalism as a middle class and bourgeois issue and to regard proposals for zero growth and constraints on consumption with intense suspicion (see Benton, 1989: 52, for a good summary) there are enough overlaps in enough areas to make ecosocialism a feasible political project (though it is still a relatively minor current within most mainstream socialist movements). Some environmental issues, such as occupational health and safety, are of intense concern to workers, while many ecological groups accept that environmental problems can be traced back to the capitalist precept that the choice of production technology is to be governed solely by private interest in profit maximization of market share (Commoner, 1990: 219). “If we want ecological sanity,” assert Haila and Levins (1992: 251), “we have to struggle for social justice.” This means social control of production technology and the means of production, control over capitalistic “accumulation for accumulation’s sake,
production for production’s sake” which lies at the root of many environmental issues, and a recognition that “the future of humanity simply cannot build on pleasant life for a few and suffering for the majority” (Haile and Levinson, 1992: 227). This places the environmental issue firmly within the socialist orbit. Those socialists (see O’Connor, 1988; Foster, 1994) who accept that there is an ecological crisis, then argue that a second route to socialism is available; one that highlights the contradiction between the social organization of production and the (ecological) conditions of production, rather than class contradictions. The necessity for socialism is then in part given because only under socialism can thorough, enduring, and socially just solutions be found to the environmental problems.

Ecofeminism

The nature–nurture controversy has been nowhere more thoroughly debated than in the feminist movement and in ecofeminism we find a diverse set of opinions on how to connect the environmental–ecological issue with feminist politics (see Plumwood, 1993; Shiva, 1989 for quite different presentations). In radical ecofeminism, for example, the devaluation and degradation of nature is seen as deeply implicated in the parallel devaluations and degradation of women under a system of patriarchal oppression. One line of political response is to celebrate rather than deny the web-like interrelations between women and nature through the development of rituals and symbolism as well as an ethic of caring, nurturing, and procreation. An alternative line of argument resists the essentialism implicit in such an argument and defines a “feminist environmentalism” in which the “link between women and the environment can be seen as structured by a given gender and class (caste/race) organization of production, reproduction, and distribution” (Agarwal, 1992: 119). In both equations, the feminism is as prominent, if not more so, than the ecology and solutions to ecological problems are seen as dependent upon the acceptance of certain kinds of feminist principles.

Decentralized communitarianism

Most contemporary ecological movements, Dobson (1990: 25) argues, eschew authoritarian solutions on principle and “argue for a radically participatory form of society in which discussion takes place and explicit consent is asked for and given across the widest possible range of political and social issues.” Their politics generally derive inspiration from “the self-reliant community modelled on anarchist lines” (O’Riordan, 1981: 307) and writers like Bookchin, Goldsmith, and a host of others (including the German green party) have tried to articulate the form of social relations which should prevail within such self-reliant communities that could become, by virtue of their scale, “closer” to nature. Egalitarianism, nonhierarchical forms of organization, and widespread local empowerment and participation in decision-making are usually depicted as the political norm (Dauney, 1988). Decentralization and community empowerment, coupled with a certain degree of bioregionalism, is then seen as the only effective solution to an alienated relation to nature and alienation in social relationships.

The positions I have here outlined are by no means mutually exclusive and all kinds of cooptations from one line of thought to another can be observed. The World Bank’s concern with “sustainability” (both ecological and financial) has led to a cooptation of ecofeminist arguments to place women in the forefront of development projects. Decentralized green politics likewise seeks to coopt some of the findings if not some of the personnel from within a highly centralized science of global environmental management.

The array of ecological politics I have here outlined must also be supplemented, by an even vaster and much more complex array of special pleading, in which environmental–ecological issues or requirements are invoked for very particular social purposes. Scientists, for example, hungry for funding as well as for attention, may create environmental issues that reflect as much about the political–economy and sociology of science as they do about the condition of the environment. Robert May (1992), a Royal Society research professor writing on the evident urgency of taking measures to conserve biological diversity, focuses, for example, as much on the underfunding of taxonomy (relative to physics) as on how to define the importance of or deal with the issue. While on the one hand scientific ignorance is clearly a barrier to proper identification of what the relevant issues or solutions might be, the perpetual claims for more funding sometimes deservedly provoke scepticism.

Jacks and Whyte (1939: 261–2) provide another and even more insidious example. Writing in 1939, these two highly respected soil scientists, deeply concerned about soil erosion in Africa, argued that:

A feudal type of society in which the native cultivators would be to some extent tied to the lands of their European overlords seems the most generally suited to meet the needs of the soil in the present state of African development. Africa cannot be expected to accept feudalism without a struggle; in parts of British Africa it would mean jettisoning the promising experiment of Indirect Rule, everywhere it would mean denying to the natives some of the liberty and opportunities for material advancement to which their labors should entitle them. But it would enable the people who have been the prime cause of erosion and who have the means and ability to control it to assume responsibility for the soil. Self-interest, untrammelled by fears of native rivalry, would ensure that the responsibility was carried out in the ultimate interests of the soil. At present, humanitarian considerations for the natives prevent Europeans from winning
the attainable position of dominance over the soil. Humanity may perhaps be
the higher ideal, but the soil demands are dominant, and if white men will not
and black men cannot assume the position, the vegetation will do so, by the
process of erosion finally squeezing out the whites.

Both blunt and startling, this statement illustrates how, in the name of the
environment, all kinds of restrictions should be put upon the rights of “others”
while conferring rights (and obligations) on those who supposedly have the
knowledge and the high technology to control the problem. While few would
now dare to be so blatant, there is a strong strain of this kind of thinking in
World Bank arguments and even in such a seemingly progressive document as
the Brundtland Report. Control over the resources of others, in the name of
planetary health, sustainability or preventing environmental degradation,
is never too far from the surface of many western proposals for global environ-
mental management. Awareness of precisely that potentiality stimulates a good
deal of resistance in developing countries to any form of environmentalism
emanating from the west.

Similar issues arise whenever the environmental–ecological issue gets con-
verted into a purely esthetic question. The special issue of Fortune devoted to
the environment in 1970, for example, contained a strong argument for the
redevelopment of the downtowns of the United States along what we would
now call “postmodern” lines, invoking environmental quality (usually
depicted as user-friendly and as tree-lined or waterfront spaces) as its primary
goal. The whole contemporary “culture of nature” as Wilson (1992) calls it,
is a very cultivated and hard-sold taste, that preys upon environmental quality
through commercial cooption.

A cynical observer might be tempted to conclude that discussion of the
environmental issue is nothing more than a covert way of introducing particu-
lar social and political projects by raising the specter of an ecological crisis or of
legitimating solutions by appeal to the authority of nature-imposed necessity. I
would want, however, to draw a somewhat broader conclusion: all ecological
projects (and arguments) are simultaneously political–economic projects (and
arguments) and vice versa. Ecological arguments are never socially neutral any
more than socio-political arguments are ecologically neutral. Looking more closely
at the way ecology and politics interrelate, then becomes imperative if we are to
get a better handle on how to approach environmental/ecological questions.

II. Historical–Geographical Materialism and the
Political–Economy of Socio-ecological Projects

There is an extraordinarily rich record of the historical geography of socio-
ecological change that sheds much light on the ways in which socio-political

and ecological projects intertwine with and at some point become indistin-
guishable from each other. The archive of such materials from archeology (see,
for example, Butzer, 1982), anthropology (see, for example, Bennett, 1976;
Ellen, 1982; Ingold, 1986), geography (Thomas, 1956; Goudie, 1986; Turner
et al., 1990), and more recently history (cf. the debate in Journal of American
History, 1990) is extensive indeed. Yet much of the contemporary debate on
environmental–ecological issues, for all of its surface devotion to ideals of
multidisciplinarity and “depth,” operates as if these materials either do not exist
or, if they do, exist only as a repository of anecdotal evidence in support of
particular claims. The debate remains at the purely discursive level and fails
to integrate itself with what we know about the historical–geography of mater-
ial practices. Systematic work is relatively rare and that which does exist (e.g.,
Butzer, 1982) has not been anywhere near as central to discussion as it should.
The debate now arising within Marxism— between, for example, Benton
(1989, 1992) and Grundmann (1991a, b)— operates at a level of historical–
geographical abstraction that is most un-Marxist.

The difficulty in part derives from the tendency in discursive debates to
homogenize the category “nature” (and discuss its social meaning and
constituted as a unitary category) when it should be regarded as intensely
internally variegated—an unparalleled field of difference. In much the same
way that the formal debate over “language” (see chapter 3) loses sight of the
multiple languages at work in the world, so the general debate over the society/
nature relation loses sight of the incredible degree of ecosystemic variation. As
much attention should then be paid to the production of difference as to the
relational meaning of nature in general. So where does all this difference come
from?

An impressionistic survey illustrates well how societies strive to create
ecological conditions and environmental niches for themselves which are not
only conducive to their own survival but also manifestations and instantiations
“in nature” of their particular social relations. Since no society can accomplish
such a task without encountering unintended ecological consequences, the
contradiction between social and ecological change can become highly
problematic, even from time to time putting the very survival of the society
concerned at risk. This latter point was made as long ago as 1864, by that extra-
ordinary pioneer in the study of the historical—geography of environmental
change, George Perkins Marsh. While Marsh recognized that it was often hard
to distinguish between anthropogenic and nonanthropogenic changes, he
regarded it as “certain that man has done much to mould the form of the earth’s
surface” in ways that were by no means always destructive to human interests.
Nevertheless, we have long forgotten that the earth was given to us “for usufruct
alone, not for consumption, still less for profligate waste.” The net effect of
human interventions is that “the harmonies of nature are turned to discords
because the intentional changes pale “in comparison with the contingent and
unsought results which have flowed from them." Engels, without much in the way of evidence, made the same point:

Let us not, however, flatter ourselves overmuch on account of our human victories over nature. For each such victory nature takes its revenge on us. Each victory, it is true, in the first place brings about the results we expected, but in the second and third places it has quite different, unforeseen effects which only too often cancel the first ... Thus at every step we are reminded that we by no means rule over nature like a conqueror over a foreign people, like someone standing out of nature - but that we, with flesh, blood, and brain, belong to nature, and exist in its midst, and that all our mastery of it consists in the fact that we have the advantage over all other creatures of being able to learn its laws and apply them correctly.

This implies the sheer necessity of always taking the duality of social and ecological change seriously (cf. Cronon's "dialectical" views cited in chapter 6) or, as Marx and Engels' (1975: 55) put it, recognizing that the "antithesis between nature and history is created" only when "the relation of man to nature is excluded from history."

Putting that relation back into history reveals a lot. Cronon (1983), for example, shows how a New England environment that was the product of more than 10,000 years of Indian occupation and forest use (promoting, through burning, the forest edge conditions which tend to be so species diverse) was misread by the settlers as pristine, virginal, rich, and underutilized by indigenous peoples. The implantation of European institutions of governance and property rights (coupled with distinctively European aspirations towards accumulation of wealth) wrought an ecological transformation of such enormity that indigenous populations were deprived of the ecological basis for their particular way of life. The annihilation of that way of life and the social orderings that constructed it (and thereby of Indian peoples themselves) was as much an ecological as a military or political event. In part this had to do with the introduction of new disease regimes (smallpox in particular) but changes in and on the land also made it impossible to sustain a nomadic and highly flexible indigenous mode of production and reproduction.

One path towards consolidation of a particular set of social relations, therefore, is to undertake an ecological transformation which requires the reproduction of those social relations in order to sustain it. Worster (1985a) doubtless exaggerates in his flamboyant projection onto the American West of Wittfogel's theses on the relation between large-scale irrigation schemes and despotic forms of government, but his basic argument is surely correct. Once the original proposals for a communitarian, decentralized, "bio-regional," river-basin-confined settlement system for the US west, drawn up by the geologist John Wesley Powell at the end of the nineteenth century, were rejected by a congress dominated by large-scale corporate interests (Powell being thoroughly vilified in the process), those interests sought to assure their own reproduction through construction of dams, mega-water projects of all sorts and vast transformations of the western ecosystem. Sustaining such a grandiose ecological project came to depend crucially upon the creation and maintenance of centralized state powers and certain class relations (the formation and perpetuation, for example, of large-scale agribusiness and an oppressed landless agrarian proletariat). The consequent subversion of the Jeffersonian dream of agrarian democracy has ever since created intense contradictions in the body politic of states like California (see, for example, Gottlieb, 1988 or Polanski's film Chinatown). But here another implication (notably absent in much of Cronon's work) follows: contradictions in the social relations entail social contradictions on the land and within ecosystemic projects themselves. Not only do the rich occupy privileged niches in the habitat while the poor tend to work and live in the more toxic or hazardous zones (see chapter 13), but the very design of the transformed ecosystem is redolent of its social relations. Conversely, projects set up in purely ecological terms - one thinks of the so-called "green revolution" for example - have all manner of distributive and social consequences (in the green revolution case the concentration of land holdings in a few hands and the creation of a landless agrarian proletariat).

Created ecosystems tend to both instantiate and reflect, therefore, the social systems that gave rise to them, though they do not do so in noncontradictory (i.e., stable) ways. This simple principle ought to weigh much more heavily than it does upon all angles of environmental–ecological debate. It is a principle which Lewontin (1982: 162) argues has been forgotten as much in biology as in social science:

We cannot regard evolution as the "solution" by species of some predetermined environmental "problems" because it is the life activities of the species themselves that determine both the problems and solutions simultaneously. . . . Organisms within their individual lifetimes and in the course of their evolution as a species do not adapt to environments; they construct them. They are not simply objects of the laws of nature, altering themselves to the inevitable, but active subjects transforming nature according to its laws.

The effect is to say that what separates Pakistan from the US west is not so much differences in something called "natural environmental conditions" (important though these may be) but the historical geography of struggles over the social process (incorporating all of its moments) through which environments have been transformed. This implies that we cannot somehow abandon in a relatively costless way the immense existing ecosystemic structures of, say, contemporary capitalism in order to "get back close to nature." Such constructed ecosystems are a reworked form of "second nature" that cannot be allowed
to deteriorate or collapse without courting ecological disaster not only for the social order that produced it, but for all species and forms that have become dependent on it. The proper management of constituted environments (and in this I include their long-term socialistic or ecological transformation into something completely different) may therefore require transitional political institutions, hierarchies of power relations, and systems of governance that could well be anathema to both ecologists and socialists alike. This is so because, in a fundamental sense, there is nothing unnatural about New York city and sustaining such an ecosystem even in transition entails an inevitable compromise with the forms of social organization and social relations which produced it.

To term New York city a "created ecosystem" may sound somewhat odd. But human activity cannot be viewed as external to ecosystemic projects. To view it so makes no more sense than trying to study pollination without bees or the precocious ecosystem of the northeastern United States without the beaver. And it is particularly odd to find many otherwise dedicated ecological thinkers excluding the massive transformations of urbanization from their purview while insisting in principle that in an ecological world everything relates to everything else. The long history of urbanization is, after all, one of the most significant of all the processes of environmental modification that have occurred throughout recent world history. In the last century that process has become explosive, creating a set of global ecological conditions that have never been seen before. And environmental issues have emerged that are wholly specific to the ecologies our urbanizing activities have created. We will surely pay a severe price for the discursive habit of excluding urban historical geography from the overall thrust of environmental historical geography (see chapter 14). We have, Gottlieb (1993) correctly insists, to shift environmental analysis "from an argument about protection or management of the natural environment to a discussion of social movements in response to the urban and industrial forces of the past hundred years." The created environments of an urbanizing world, their qualities and particular difficulties, their proneness to new configurations for the development and transmission of new diseases, their extraordinarily difficult problems of sustainability (in whatever sense) have to move to the center of our attention relative to much of the contemporary preoccupation with wilderness, peripheral peasant movements, preservation of scenic landscapes, and the like.

Human beings, like all other organisms, are "active subjects transforming nature according to its laws" and are always in the course of adapting to the ecosystems they themselves construct. It is fundamentally mistaken, therefore, to speak of the impact of society on the ecosystem as if these are two separate systems in interaction with each other. The typical manner of depicting the world around us in terms of a box labelled "society" in interaction with a box labelled "environment" not only makes little intuitive sense (try drawing the boundary between the boxes in your own daily life) but it also has just as little fundamental theoretical or historical justification. Money flows and commodity movements, for example, have to be regarded as fundamental to contemporary ecosystems (particularly given urbanization), not only because of the past geographical transfer of plant and animal species from one environment to another (see Crosby, 1986), but also because these flows formed and continue to form a coordinating network that keeps contemporary ecological habitats reproducing and changing in the particular way they do. If those money flows cease tomorrow, then the disruption within the world's ecosystems would be enormous. And as the flows shift and change their character, as is always the case given the uneven geographical development of capitalism, so the creative impulses embedded in any socio-ecological system will also shift and change in ways that may be stressful, contradictory or salutary as the case may be. Here, too, Cronon's (1991) consideration of Chicago as a city operating as a fundamental exchange point between and transformative influence within the ecosystems of North America provides an interesting case study. It in effect translates and extends Smith's theses (see Smith, 1990) concerning "the production of nature" through commodity exchange and capital accumulation into a detailed historical-geographical narrative. The category "environmental or ecological movement" may also for this reason be a misnomer particularly when applied to resistances of indigenous peoples to ecological change. Such resistances may not be based, as many in the west might suppose, upon some deep inner need to preserve a distinctive and unalienated relation to nature or to keep intact valued symbols of ancestry and the like, but upon a much clearer recognition that an ecological transformation imposed from outside (as happened in the colonial New England or as has more recently happened to rubber tappers in the Amazon) will destroy indigenous modes of production. Guha (1989: xii), for example, in his study of the Chipko "tree-hugging" movement in the Himalayas against commercial logging and high-tech forest yield management, shows (contra Shiva's well-known interpretation) that "the most celebrated 'environmental' movement in the Third World is viewed by its participants as being above all a peasant movement in defence of traditional rights in the forest and only secondarily, if at all, an 'environmental' or 'feminist' movement." Yet, to the degree that a "homogenizing urban-industrial culture" is generating its own distinctive forms of ecological and cultural contradictions and crises, the Chipko, precisely by virtue of their ecological practices, "represent one of the most innovative responses to the ecological and cultural crisis of modern society" (Guha, 1989: 196).

Indigenous groups (including those peasant women made so much of in ecofeminist writings) can, however, also be totally unsentimental in their ecological practices. It is largely a western construction, heavily influenced by the romantic reaction to modern industrialism, which leads many to the view
that they were and continue to be somehow "closer to nature" than we are (even Guha, it seem to me, falls into this trap). Faced with the ecological vulnerability often associated with such "proximity to nature," indigenous groups can transform both their practices and their views of nature with startling rapidity. Furthermore, even when armed with all kinds of cultural traditions and symbolic gestures that indicate deep respect for the spirituality in nature, they can engage in extensive ecosystemic transformations that undermine their ability to continue with a given mode of production. The Chinese may have ecologically sensitive traditions of Tao, Buddhism, and Confucianism (traditions of thought which have played an important role in promoting an "ecological consciousness" in the west) but the historical geography of deforestation, land degradation, river erosion, and flooding in China contains not a few environmental events which would be regarded as catastrophes by modern-day standards. Archeological evidence likewise suggests that late ice-age hunting groups hunted many of their prey to extinction while fire must surely rate as one of the most far-reaching agents of ecological transformation ever acquired, allowing very small groups to exercise immense ecosystemic influence (Sauer, 1956).

The point here is not to argue that there is nothing new under the sun about the ecological disturbance generated by human activities, but to assess what exactly is new and unduly stressful, given the unprecedented rapidity and scale of contemporary socio-ecological transformations. But historical-geographical enquiries of this sort also put in perspective those claims typically advanced by some ecologists that once upon a time "people everywhere knew how to live in harmony with the natural world" (Goldsmith 1992: xvii) and to view with skepticism Boecklin's (1990a: 97) equally dubious claim that "a relatively self-sufficient community, visibly dependent on its environment for the means of life, would gain a new respect for the organic interrelationships that sustain it." Much contemporary "ecologically conscious" rhetoric pays far too much attention to what indigenous groups say without looking at what they do. We cannot conclude, for example, that native-American practices are ecologically superior to ours from statements such as those of Luther Standing Bear that:

We are of the soil and the soil is of us. We love the birds and the beasts that grew with us on this soil. They drank the same water as we did and breathed the same air. We are all one in nature. Believing so, there was in our hearts a great peace and a welling kindness for all living, growing things. (Cited in Booth and Jacobs, 1990: 27)

The inference of "better and more harmonious ecological practices" from statements of this sort would require belief in either some external spiritual guidance to ensure ecologically "right" outcomes, or an extraordinary omniscience in indigenous or pre-capitalistic judgments and practices in a dynamic field of action that is usually plagued by all manner of unintended consequences. "The possibility of over-exploitation of a resource is perfectly compatible with our notion of peoples living close to nature, observing and acting accordingly" (Haila and Levis, 1992: 195). Furthermore, "comparative studies have suggested that all high civilizations that incorporated intensification strategies were metastable and that their growth trajectories can be interpreted as those of accelerating energy extraction, to the point that both the ecosystem and the socioeconomic structures were stretched to capacity, with steady or declining absolute caloric productivity and input-output ratios" (Butzer, 1982: 320). All societies have had their share of ecologically based difficulties and, as Butzer goes on to assert, we have much to learn from studying them.

Indigenous or pre-capitalist practices are not, therefore, necessarily superior or inferior to our own just because such groups possess discourses that avow respect for nature rather than the modern "Promethean" attitude of domination or mastery (see Leiss, 1974). Grundmann (1991a) is surely correct in his argument contra Benton (1989; 1992) that the thesis of "mastery over nature" (laying aside its gendered overtones for the moment) does not necessarily entail destructiveness; it can just as easily lead to loving, caring, and nurturing practices. It was, as we have already noted, precisely the intent of the esthetic tradition to assert "mastery without tyranny" with respect to the natural world. Uncritical acceptance of "ecologically conscious" sounding statements can, furthermore, be politically misleading. Luther Standing Bear prefaced the thoughts cited above with the very political argument that "this land of the great plains is claimed by the Lakota as their own very own." Native-Americans may well have strong claims to land rights, to the use of the landscape as a mnemonic upon which to hand their sense of historical identity, but the creation of an "ecologically conscious" rhetoric about a privileged relation to the land to support them is, as we have already argued, an all-too-familiar and dangerous practice.

Inspection of the historical-geographical record reveals much about why words like "nature" and "environment" contain "such an extraordinary amount of human history" (Williams, 1980: 67). The intertwining of social and ecological projects in daily practices as well as in the realms of ideology, representations, esthetics, and the like are such as to make every social (including literary or artistic) project a project about nature, environment, and ecosystem, and vice versa. Such a proposition should not, surely, be too hard for those working in the historical materialist tradition to swallow. Marx argued, after all, that we can discover who and what we are (our species potential, even) only through transforming the world around us and in so doing put the dialectics of social and ecological change at the center of all human history. But is there some way to create a general enough language to capture that dialectical evolutionary movement?
III. Towards an Evolutionary View

We badly need a much more unified language than we currently possess for exercising the joint responsibility towards nature that resides with the social and biological/physical sciences. The question of the unity of science has, of course, been broached many times—not least by Marx (1964). But serious problems have arisen on the social theory side whenever a biological basis has been invoked (familiar examples include the way social Darwinism founded Nazism, the profound social antagonisms generated in the debate over socio-biology and the dismal history of the eugenics movement particularly as applied to racial categories). The response on the social science side has often been to retreat from any examination of the ecological side of social projects and act as if these either did not matter or as if they had to be construed as something “external” to enquiry. I want to argue that this is not satisfactory and that ways have to be found to create if not a common language, then means to translate across discursive domains. This is, however, dangerous territory—an open field for organismist or holistic rather than dialectical modes of thinking—and it may require deep shifts in ontological and epistemological stances on both the social and natural scientific sides, if it is to succeed.

But the territory cannot be left empty of all thought about how to approach the problem. With this in mind let me propose a dialectical and relational schema for thinking through how to understand the dialectics of social–environmental change. The simplest schema is to break down the evolutionary process into four distinctive facets:

1. Competition and the struggle for existence (the production of hierarchy and homogeneity).
2. Adaptation and diversification into environmental niches (the production of diversity).
3. Collaboration, cooperation, and mutual aid (the production of social forms).
4. Environmental transformations (the production of nature).

I want to treat these as relational categories rather than mutually exclusive processes and thereby to insist that each internalizes effects of the others. Thus socio-biologists are correct when they argue that cooperation (“reciprocal altruism” is their preferred term) is in some sense an adaptive form of competition. The difficulty is that they make the competitive moment the shaping moment of all else (always a convenient gesture given the ideological struggle to “naturalize” capitalism) and use adaptation to absorb collaboration within the competitive framework. This is an excellent example of that habit analyzed in chapter 4, of converting internal relations among moments into hierarchical causal structures almost without noticing it. But from a relational point of view competition can just as easily be seen as a form of cooperation. The example of territoriality examined in chapter 7, is an interesting case in point. But is it not also a fundamental tenet of the liberal theory of capitalism that rampant competition between individuals produces a collaborative social effect called “society”? Adaptation and diversification of species and activities into special niches is also a form of both competition and collaboration and the effect is to transform environments in ways that may make the latter more rather than less diverse. Species may diversify further creating more diversified niches. The production of a more diversified nature in turn produces greater diversity of species.

The example of the liberal theory of capitalism, however weakly implanted it is in practice and however ideological its content, can be pressed further into service here to alert us to something else important. For within that theory it is not simply competition that matters, but the particular mode of competition, the rules and regulations that ensure that only one sort of competition—that within freely functioning markets respecting property rights and freedom of contract—will prevail. From this perspective it seems as if the normal causal ordering implied in socio-biology gets reversed because it is only through the collaborative and cooperative structures of society (however coerced) that competition and the struggle for existence can be orchestrated to do its work. But the point here is not to change the causal ordering and thereby to make it seem as if society (the mode of cooperation) has in some way contained nature (competition, adaptation, and environmental change). It is much more appropriate to suggest that competition is always regulated in important ways by the effects internalized within it of cooperation, adaptation, and environmental transformations.

Thinking in these terms allows us better to see how a particular kind of environmental transformation (such as the great water projects of the US west) affects both the mode of cooperation (within society as well as between species) and the mode of collaboration/adaptation. Capitalistic competition consequently means something quite different in the agribusiness sector in California compared to, say, dairy producers in Wisconsin, because the forms of environmental transformation have been so radically different in the two places.

I will not elaborate much further on this idea, but it should be apparent that there are different modes of competition, adaptation, cooperation, and environmental transformation. Given the relational/dialectical theory advanced in chapters 2–4, it should also be plain that each facet of the overall process internalizes a great deal of heterogeneity within itself. Such heterogeneity is a source of contradiction, tension, and conflict, sparking intense struggles for stability, hegemony, and control. A mode of production, in Marx’s sense, can then be construed as a particular regulated unity of these different modalities. The transition from one mode of production entails transformations in all modalities in relation to each other, including, of course, the nature of the nature produced.
What I am proposing here is a way of depicting the fundamental physical and biological conditions and processes that work through all social, cultural, economic projects to create a tangible historical geography and to do it in such a way as not to render those physical and biological elements as a banal and passive background to human historical geography. But my purpose is also to specify these conditions and processes in such a way as to understand the possibilities for collective human activity in negotiating through these fundamental elements to generate significantly diverse outcomes of the sort that a Marxist theory of historical–geographical development envisages. Given, for example, the four "moments" in the biological evolutionary process, then organisms of any sort (most particularly the human species) can work with the moments of competition, adaptation, cooperation, and environmental modification in a variety of ways to produce radically different outcomes (such as quite different modes of production). "No natural laws can be done away with," Marx wrote in a letter to Kugelman in 1868, but "what can change, in historically different circumstances, is only the form in which these laws operate." What we have to pay attention to, therefore, is the particular way in which organisms (again, of any sort) work with these quite different possibilities in dynamic and interactive ways. And to do that requires that somehow the artificial break between "society" and "nature" must be eroded, rendered porous, and eventually dissolved.

While my language here is highly abstract and general, I do not find it hard to see this style of thinking in motion, to differentiate it further, to capture some of the ways in which the natural and social flow into each other without falling back into the typical reductionism of socio-biology. And there are plenty of hints that this is not necessarily an isolated way of looking at the problem. When, for example, Callon (1986) analyzes the difficulties of developing the domestication of scallop fishing in St Brieuc Bay, he treats the scallop as an active agent in the whole process, thereby breaching the common protocol that says the question of agency is confined within the social sphere. And in so doing he opens up the fluid way in which competition, collaboration (alliance formation), adaptation, and environmental transformation all run into each other as part of a more general process of socio-environmental change. Bateson (1988) likewise points out the different ways in which all species (including human beings) can affect subsequent evolution through their behavior. Animals make active choices and by their behavior change the physical and social conditions with which their descendants have to cope. They also modify their behavior in response to changed conditions and by moving expose themselves to new conditions that open up different possibilities for evolutionary change. Lewontin (1982) likewise argues for understanding a whole set of processes in which organisms "are not simply objects of the laws of nature, altering themselves to bend to the inevitable, but active subjects transforming nature according to its laws." Through efforts such as these, the uneasy boundary between the social and the natural worlds will surely be dissolved, as indeed it must, and analysis brought to the point where we might lose our fears of "biological determinism" by recognizing, as Fuss (1989) so powerfully argues in her discussion of essentialism in feminism, that the distinction between biological essentialism and social constructionism is itself a false construction that thoroughly deserves to be dissolved. Haraway (1995) has produced some exemplary work on the practical and material dissolution of this boundary in social and scientific practices. But she also pays careful attention to how strictly that boundary gets policed in our thoughts, in our disciplines, and in our courses and provides food for thought as to what configurations of corporate and state power have most to gain from that policing. And it is through a critical understanding of how such power relations play out in political–ecological debates that we can arrive at a deeper conception of what ecosocialist politics might be all about.

IV. Towards an Ecosocialist Politics

Defining a proper ground for a socialist approach to environmental–ecological politics has proven a peculiarly difficult problem. In part this has to do with the way in which the socialist–Marxist movement took over from capitalism a strongly productivist ethic and a broadly instrumental approach to a supposedly distinct natural world and sought a transformation of social relations on the basis of a further liberation of the productive forces. It has subsequently proven hard to wean Marxism away from a rather hubristic view of the domination of nature thesis. In addition, Marxism has shared with much of bourgeois social science a general abhorrence of the idea that "nature" can control, determine, or even limit any kind of human endeavor. In so doing it has either avoided a definition of any foundational view of nature altogether, or resorted to a rather too simplistic rhetoric about "the humanization of nature" backed by a dialectical and historical materialism that somehow absorbed the problem by appeal to a set of epistemological/ontological principles. And in those rare cases when Marxists have taken the material biological and physical conditions of existence as foundational to their materialism, they have either lapsed into some form of environmental determinism (as in the case of Wittfogel, 1953) or into a damaging materialist pessimism (Timpanaro, 1970; Benton, 1989). The effect has been to create a polarity within Marxism between "materialist triumphalism and materialist pessimism" (Williams, 1978: 9) that uncomfortably reflects the bourgeois habit of taking the triumphalist path when all goes right and invoking Malthusian limits when things go wrong.

So while there have been numerous principled writings in the Marxist tradition on the question of nature, beginning with Engels' "The Dialectics of
Nature and continuing through works such as Schmidt's *Marx's Concept of Nature*, Smith's exploration of the idea of the "production of nature" in *Uneven Development*, and, most recently, Grundmann's examination of *Marxism and Ecology*, the armory of Marxism–socialism to counter the rhetoric and politics of a rising tide of ecological movements has not been well stocked. The response has been either to reject environmental–ecological politics as a bourgeois diversion (as, indeed, much of it patently is) or to concede in part to environmental–ecological rhetoric and try to rebuild Marxism–socialism on rather different theoretical and practical foundations from those that traditionally grounded working-class political projects and political action. And in some formulations a noble attempt has been made to do both, with not particularly felicitous results.

Consider, for example, a book by John Bellamy Foster, published with all the Marxist credibility of the Monthly Review Press, entitled *The Vulnerable Planet: A Short Economic History of the Environment*. Foster strongly argues that "the crisis of the earth is not a crisis of nature but of society." He goes on to discuss how accumulation for accumulation's sake in the west and production for production's sake in what was the Communist world have had devastating effects upon the world's environment since World War II, setting the stage for a contemporary condition of planetary ecological crisis. There is much that is persuasive and telling in the account but there are two central failings in the analysis. First, the postulation of a planetary ecological crisis, the very idea that the planet is somehow "vulnerable" to human action or that we can actually destroy the earth, repeats in negative form the hubristic claims of those who aspire to planetary domination. The subtext is that the earth is somehow fragile and that we need to become caring managers or caring physicians to nurse it back from sickness into health. This leads to Foster's extraordinarily hubristic conclusion that "the conscious and collective organization of the entire planet in the common interest of humanity and the earth has become a necessity if we are to prevent the irreparable despoliation of the earth by forces of institutionalized greed." Against this it is crucial to understand that it is materially impossible for us to destroy the planet earth, that the worst we can do is to engage in material transformations of our environment so as to make life less rather than more comfortable for our own species being, while recognizing that what we do also does have ramifications (both positive and negative) for other living species. It is vital, furthermore, to disaggregate "the environmental issue" into a tangible set of problems that exist at quite different scales, varying from the global issues of ozone, climate warming, and biodiversity to regional problems of soil depletion, desertification, and deforestation to the more localized questions of water quality, breathable air, and radon in the basement. Politically, the millenarian and apocalyptic proclamation that ecoside is imminent has had a dubious history. It is not a good basis for left politics and it is very vulnerable to the arguments long

advanced by Simon (1981) and now by Easterbrook (1995), that conditions of life (as measured, for example, by life expectancy) are better now than they have ever been and that the doomsday scenario of the environmentalists is far-fetched and improbable. Furthermore, as Foster's conclusion all too clearly indicates, there is nothing in the argument that cannot be made broadly compatible with a segment of corporate capital's concerns to rationalize planetary management in their own interests. But then this is precisely what happens when the class content of the whole environmental–ecological argument gets subordinated to an apocalyptic vision of a planetary ecological crisis.

The second failing (which connects powerfully to the first) lies in the specification and interpretation of four ecological laws [largely drawn from Barry Commoner (1990), whose dedication to progressive left and ecological issues has been long-standing]. They are "(1) everything is connected to everything else, (2) everything must go somewhere, (3) nature knows best, and (4) nothing comes from nothing." The first is an important truism which has very little meaning without recognizing that some things are more connected than others. It is precisely the task of ecological analysis to try and identify unintended consequences (both short- and long-term, positive and negative) and to indicate what the major effects of actions are. Without such understandings there is little that can be said for or against specific forms of environmental modification on the basis of this law. The second law properly indicates that there is no solution to active pollution problems except to move them around (a version of Engels' comment on how the bourgeoisie handles its housing problem—see chapter 13). The fourth law properly points out the cautionary principle (based on the laws of thermodynamics) that energy in usable form for human beings can indeed be depleted (though never destroyed). The third law is where the real problem lies. For to say "nature knows best" is to presume that nature can "know" something. This principle, as I showed in chapter 6, then dissolves either into the (once more hubristic) idea that someone is somehow in a privileged position to know what nature knows or into the conservative view that our environmental transformations should be as limited as possible (the "tread lightly on the surface of the earth" injunction favored by many ecologists). Foster thus accepts uncritically Commoner's argument that "any major man-made change in a natural system is likely to be detrimental to that system." To which I would want to reply "I hope so" leaving open the question as to whether the changes are favorable or detrimental to social or other forms of life and what meaning such changes might have for social relations, life chances of individuals, ecological beings, and the like.

Foster uses these laws to arrive at a thorough and convincing condemnation of capitalism in which the market, not nature, knows best, the only connection that matters is the cash nexus, it doesn't matter where something goes as long
as it doesn’t re-enter the circuit of capital and goods in nature are considered a free gift. All of this is reasonably true and Foster does a good job of explaining how destructive the consequences can be. But the difficulties begin when these same ecological laws are applied to socialism. I hope it would be true that socialists, rather than nature, will know best. Indeed, the only persuasive reason for joining the socialist (as opposed to the fascist, libertarian, corporate capitalist, planetary management) cause is precisely that socialists know best how to engage in environmental—ecological transformations in such a way as to realize long-term socialist goals of feeding the hungry, clothing the poor, providing reasonable life-chances for all, and opening up paths towards the liberation of diverse human creativities.

But ecocapitalist politics cannot avoid the vital analytic point that much of what happens in the environment today is highly dependent upon capitalist behaviors, institutions, activities, and power structures. The sustainability of contemporary environments heavily depends on keeping capitalism going. To put things this way is not to argue for continuation of the capitalist system of environmental transformation, but to recognize that the task of socialism is to think through the duality of ecological—social transformations as part of a far more coherent project than has hitherto been the case. To paraphrase Marx, we can collectively hope to produce our own environmental history, but only under environmental conditions that have been handed down to us by way of a long historical geography of capital circulation, the extraction of surplus values, monetized exchange, and the circulation of commodities.

On the one hand, therefore, we cannot afford to limit options by internalizing a capitalistic logic in which concepts of sustainability, ecocapitalism, and overpopulation are deeply implicated. But on the other hand, we cannot avoid the problem of conversion of capitalistic ecosystems, in which, for example, the circulation of money and the extraction of surplus values have become primary ecological variables. The task is, then, to both define and fight for a particular kind of ecocapitalist project that extricates us from the peculiar social oppressions and contradictions that capitalism is producing through its highly specific ecological projects. Marx hinted at this dilemma:

In our days, everything seems pregnant with its contrary. Machinery, gifted with the wonderful power of shortening and frustrating human labor, we behold starving and overworking it. The new-fangled sources of wealth, by some strange weird spell, are turned into sources of want. The victories of art seem bought by the loss of character. At the same pace that mankind masters nature, man seems to become enslaved to other men or to his own infamy. Even the pure light of science seems unable to shine but on the dark background of ignorance. All our invention and progress seem to result in endowing material forces with intellectual life, and in alienating human life into a material force. (Cited in Grundmann, 1991b: 228)

It is then tempting, but not sufficient, to cite Engels’ path towards an effective resolution to ecological as well as social dilemmas:

by long and often cruel experience and by collecting and analyzing historical material, we are gradually learning to get a clear view of the indirect, more remote, social effects of our production activities and so are afforded an opportunity to control and regulate these effects as well. ... This regulation, however, requires something more than mere knowledge. It requires a complete revolution in our hitherto existing mode of production, and simultaneously a revolution in our whole contemporary social order.

I say this is insufficient because it leaves unresolved far too many dilemmas concerning the actual direction any ecocapitalist might take. And here the debate between Marxists and ecologists of all stripes has much to offer. That debate has hitherto largely been a matter of articulating fixed positions, but there are other, more dialectical ways, to go about reading it, perhaps even “to rub together conceptual blocks in such a way that they catch fire.” In that spirit I will conclude with the five key areas in which such a “rubbing” might help ecocapitalist conceptual politics catch fire.

1. Alienation, Self-realization and the Ethics of Development

Ideals of “self-realization” are widespread in the ecological literature. They parallel in certain ways Marx’s concerns, particularly in The Economic and Philosophic Manuscripts of 1844 but also in later works such as the Grundrisse, for human emancipation and self-development through the working out of our creative powers. In the Marxist tradition, however, quite properly concerned as it has been with impoverishment and deprivation, the liberation of the productive forces came to be seen as the privileged and to some degree exclusive means towards the broader goal of human self-realization (see Grundmann, 1991b: 54). As such, it became a goal in itself.

The ecological critique of socialist “productivism” is here helpful, since it forces Marxists to re-examine the problematic of alienation (see, for example, Meszaros, 1970; Ollman, 1976). Under capitalism, private property, class relations, wage labor, and the fetishisms of market exchange separate and alienate us from any sensuous and immediate contact (except in those fragmented and partial senses achievable under class-ordered divisions of labor) from “nature” as well as from other human beings. But if “man lives on nature” then “that nature is his body with which he must remain in continuous interchange if he is not to die.” The health of that body is fundamental to our health. To “respect” nature is to respect ourselves. To engage with and transform nature through work is to transform ourselves. This forms one side of Marx’s theses. But estrangement from immediate sensuous engagement with nature
is an essential moment in consciousness formation. It therefore is a step on a path towards emancipation and self-realization (cf. Ingold, 1986, cited above). But herein lies a paradox. This never-ending estrangement of consciousness permits reflexivity and the construction of emancipatory forms of knowledge (such as science); but it also poses the problem of how to return to that which consciousness alienates us from. How to recuperate an unalienated relation to nature (as well as unalienated forms of social relations) in the face of contemporary divisions of labor and technological–social organization, then becomes part of a common project that binds Marxists and ecologists ineluctably together.

The secular version of the romantic tradition was, in the first instance, heavily esthetic in its orientation, taking the view that too high a price was paid for material emancipation in relation to our sensuous capacities to appropriate nature, but in more recent years, particularly in the advanced capitalist countries, the criticism has also been on ascetic grounds, revolting against the quality of life developed under the aegis of mass consumerism (including the mass tourist trade and the organized consumption of "nature") and seeking for a quite different set of nonmaterial values. The religious versions and secular versions look rather different and yet they all have in common that proximity to God or proximity to the self (and therefore realization of the self) depends on the construction of a certain attitude to nature. The young Marx, influenced by romanticism and esthetic concerns, was very sympathetic to such a viewpoint and there is some evidence that he never abandoned this sympathy though it became much less explicit in his later writings.

Where these sentiments split asunder is exactly where a recuperation might be sought. For Marxists, there can be no going back, as many ecologists seem to propose, to an unmediated relation to nature (or a world built solely on face-to-face relations), to a pre-capitalist and communitarian world of nonscientific understandings with limited divisions of labor. The only path is to seek political, cultural, and intellectual means that "go beyond" the mediations such as scientific knowledge, organizational efficiency, technical rationality, money, and commodity exchange, while acknowledging the significance of such mediations. The emancipatory potential of modern society, founded on alienation, must continue to be explored. But this cannot be, as it so often is, an end in itself for that is to treat alienation as the end point, the goal. The ecologists' and the early Marx's concern to recuperate though "in higher form" the alienation from nature (as well as from others) that modern-day capitalism instanciates must be a fundamental goal of any ecocentric project. The quest for meaningful work as well as meaningful play (making sure, for example, that "victories of art" are not brought by "loss of character") becomes a central issue through which the labor movement can grasp the nettle of ecological argumentation concerning alienation from nature, from others and, in the last instance, from ourselves. The idea of "re-enchantment" with the sensuous world through a more sensitive science, more sensitive social relations and material practices, through meaningful labor processes, provides a better language than that of alienation with all of its essentialist overtones. But here we hit another problem: re-enchantment with nature is already a consumer item and a central aim of the commodification and Disneyfication of our experience of nature. In what ways, then, can we differentiate between an "authentic" and an "alienated" (commodified and "disneyfied") re-enchantment with our natural world?

This does not deny the relevance or power of phenomenological approaches in exploring the potentialities of more intimate and immediate relations to nature or to others (usually with particular emphasis upon an intimate knowledge of place – see chapter 11). The depth and intensity of feeling implicit even in Heidegger's approach is not irrelevant, any more than is the search for adequate poetic languages, representations, symbolic systems. Sartre's existentialism owes as much, after all, to Marx as to Heidegger. The danger arises when such modes of thought are postulated as the sole basis of politics (in which case they become inward-looking, exclusionary, and even neofascistic), when it was surely Marx's intent to search for the unity within the duality of existential and mediated experiences of the world. Exploring that duality has to be at the center of ecocentric politics, implying an uncomfortable but instructive duality of values between the purely instrumental (mediated) and the existential (unmediated).

2. Social Relations and Ecological Projects

Explorations of our "species potential" and our capacity for "self-realization" require that we take cognizance of the relation between ecological projects and the social relations needed to initiate, implement, and manage them. Nuclear power, for example, requires highly centralized and nondemocratic power relations coupled with hierarchical command and control structures if it is to work successfully. Objections to it therefore focus as much on the social relations it implies as on the ecological problems of health and long-term hazardous wastes. The nature of many of the ecological projects undertaken in the Soviet Union likewise required social relations that were fundamentally at odds with the theoretical project of constructing a new society founded on egalitarianism and democracy. But this sort of critique is the easy part. For if we turn the equation around, and state that the only kinds of ecological projects to be undertaken are those which are consistent with nonhierarchical, decentralized, highly democratic, and radically egalitarian social relations, then the range of possible ecological projects becomes highly restricted, perhaps even life-threatening for substantial numbers of people. Adoption of such a stance certainly does not accord with the open exploration of our species potentiality
and would probably militate against the alleviation of the tangible material misery in which much of the world's population lives.

There is, here, no resolution to what will always be a contradictory situation, save that of recognizing fully the nature of the tension and seeking political ways to live with its effects. More immediately, we have also to recognize the effects that arise from the instanciation "in nature" of certain kinds of social relations. If, for example, we view, as I think we must, contemporary ecosystems as incorporating the built environments of cities and the capital and commodity flows that sustain them, and if these ecosystems are instanciations of capitalist social relations, then what feasible (as opposed to catastrophically destructive) social and ecological transformations are available to us? This is by no means an easy question to answer, but here, too, the typically glib and simplistic answers on offer from much of the ecological movement simply will not do (see chapter 13).

3. The Question of Technology

"Technology discloses man's mode of dealing with Nature, the process of production whereby he sustains his life, and thereby also lays bare the mode of formation of his social relations, and of the mental conceptions that flow from them" (Marx, 1967: 352). While it is plainly wrong to attribute any technological determinism to Marx ("discloses" cannot be read as "determines"), the centrality of technology and of technological choices in embedding social relations in ecological projects (and vice versa) means that careful attention has to be paid to this issue. Grundmann (1991b) is here, surely on very strong grounds when he points to some of the deep tensions in Marx's own approach. If, for example, machinery employed by capital not only dispossesses workers of their surplus value but also deprives them of their skill and virtuosity while mediating their relations to nature in alienating ways, then self-realization (however much we insist on the collectivity of the project and the potential for authentic "re-enchantment") may be in jeopardy for technological reasons. Some kinds of technologies run counter even to the aim of exercising greater control over nature since they incorporate high environmental risks and minimal social benefits. But the problem goes even deeper. The technological mixes that capitalism bequeaths us (with its particular mixes of socio-ecological projects) either have to be roundly rejected (as many ecologists now suggest) or gradually transformed in ways that better accord with socialist social relations, and of the mental conceptions (such as those concerning the relation to nature) that flow from them. Arguments over "appropriate technology" and "small-is-beautiful" here come into play, not as necessary technological principles or trajectories for the construction of socialism, but as a set of question marks over the future technological organization of a socialist society (cf. Commoner, 1990). How to sift through technological choices that minimize as opposed to accentuate risks in the metabolic relation to nature is then a key part of the social and political problem to be resolved.

4. The Dialectics of Commonality and Difference

Since much of the radical ecological critique now in vogue has its roots in anarchism, it has typically taken the path of emphasizing community, locality, place, proximity to "nature," particularity, and decentralization (deeply antagonistic to state powers) as opposed to the more traditional socialist concerns with the universality of proletarian struggles and the overthrow of capitalism as a world-historical system of domination. Any ecosocialist project has to confront that opposition. Here I think a more geographical historical materialism, one that is more ecologically sensitive, has much to offer, both in terms of analysis as well as in terms of prospective transformations. The general struggle against capitalist forms of domination is always made up of particular struggles against the specific kinds of socio-ecological projects in which capitalists are engaged and the distinctive social relations they presuppose (against commercial forestry and timber management in the Himalayas as against large-scale water projects in California or nuclear power in France). The articulation of socialist principles of struggle therefore varies greatly with the nature and scale of the socio-ecological project to be confronted. And by the same token, the nature of the socialist transformation sought depends crucially upon the socio-ecological possibilities that exist in relation to particular projects, looking very different in Nicaragua or Zimbabwe from how it looks in Sweden and very different in terms of multinational finance from how it looks in terms of medical wastes dumped next to housing projects. But it is at this point that the general presumptions of the transition to socialism deserve to be reflected upon. Socialism is not necessarily about the construction of homogeneity. The exploration of our species potentiality can presumably also be about the creative search for and exploration of diversity and heterogeneity. Socio-ecological projects, much more in tune with confronting questions of alienation (and re-enchantment) and opening up diverse possibilities for self-realization, can be regarded as fundamentally part of some socialist future. The failures of capitalism to produce anything other than the uneven geographical development of bland, commoditized, homogeneity is, surely, one of the most striking features of its failures.

The radical ecological literature that focuses on place construction, bioregionalism, and the like here has something creative to offer, partly as an excellent ground for critique of capitalism's production of waste (do we really need to ship British beer to Australia and Australian beer to Britain?) as well as its production of serial conformity in urban design and the like. Mumford wishfully depicted the region, for example, "like its corresponding artifact, the city, as a collective work of art" not found "as a finished product in nature,
not solely the creation of human will and fantasy.” Embedded in a socialist project of ecological transformation, such a way of thinking turns on the “production of nature” as diverse localized works of art coupled with the creation of ecosystemic differences which can respect diversity of culture, places, and ecosystems. The richness of human capacity for complexity and diversity in a context of the free exploration of the richness, complexity, and diversity encountered in the rest of nature can become a vital part of any ecologist project. “Each of us,” says a bioregionalist like Berg (cited in Alexander, 1990: 170) “inhabits a ‘terrain of consciousness’ determined in large part by the place we dwell in, the work we do, and the people with whom we share our lives.” And there is absolutely no reason not to follow him in arguing that “the recreation of caring and sustainable human cultures” ought to become “part of the ‘real work’ of our time.” In so doing he is echoing something that derives as much from Raymond Williams as from Heidegger.

But we also hit here the point of departure of ecoculturalism from pure bioregionalist, place, and local communitarian politics. The problem is that there is more than a hint of authoritarianism, surveillance, and confinement in the enforced localism of such a decentralized politics and a naïve belief that (1) respect for human diversity is compatible with the belief that all decentralized societies will necessarily construct themselves “upon the (enlightenment) values of democracy, liberty, freedom, justice and other such like desiderata,” (Sale, 1985) rather than in terms of slavery, sexual oppression, and the like (see Dobson, 1990: 122), (2) that the “improvisement” which often attaches to communal auctority and strong restrictions on foreign trade can be overcome, and (3) that restrictions on population movements coupled with exclusions of disruptive “foreigners” can somehow be squared with ideals of maximizing individual freedoms, democracy, and openness to “others.” Young’s (1990a) salutary warnings (see chapter 12) concerning the nightmare of communitarian politics in which community is defined as against others and therefore formulated in an entirely exclusionary, chauvinistic, and racist way, is not that easily avoided. When Goldsmith condescendingly writes (cited in Dobson, 1990: 97), for example, that “a certain number of foreigners could be allowed to settle,” but that they would not “partake in the running of the community until such time as the citizens elected them to be of their number,” the leaning towards a politics of exclusion that is neofascist becomes rather too close for comfort. The “ecologist” of the right-wing Lombardy Leagues in northern Italy, for example, shares exactly such a perspective not only with respect to the immigration of non-Italians but also with respect to movements from southern Italy. Furthermore, there is in this thinking a presumption that bioregions are given, by nature or by history, rather than that they are made by a variety of intersecting processes operating at quite different temporal and spatial scales. In other words, bioregions get thought about, in a most undialectical fashion, as the things rather than as unstable products of shifting processes. This then provokes the question: at what scale should a bioregion, place, or human community be defined?

Ecosocialist politics must, we can conclude, pay attention to a politics in which “universal” has a dual meaning. This is best expressed in Young’s (1990a: 105) rule that “universalism in the sense of the participation and inclusion of everyone in moral and social life does not imply universalism in the sense of adoption of a general point of view that leaves behind particular affiliations, feelings, commitments, and desires.” The perpetual negotiation of the relation between those two senses of universality, whether read across differences of gender, ethnicity, or other social affilitation or across the diversity of socio-ecological projects that might be explored under socialism, must therefore remain at the heart of ecosocialist thinking.

5. The Question of Temporal and Spatial Scales

At first sight, the question of scale appears as a purely technical matter. Where, for example, do ecosystems (or socio-ecological projects) begin and where do they end, how does a pond differ from the globe, how is it that processes which operate with profound effect at one scale become irrelevant at another? “Issues of appropriate scaling,” Hails and Levins (1992: 236) argue, “are among the fundamental theoretical challenges in the understanding of society–nature interactions.” There is, they say, “no single ‘correct’ way” to define temporal and spatial scales: these are constituted by the organisms considered so that different scales are simultaneously present at any particular site in nature (see chapter 10). If, as is in the dialectical view (see chapter 2), there are no basic units to which everything can be reduced, then the choice of scale at which to examine processes becomes both crucial and problematic. The difficulty is compounded by the fact that the temporal and spatial scales at which human beings operate as ecological agents have also been changing. Cronon (1983: 99) notes, for example, how even before colonial settlement began in New England, long-distance trade from Europe was bringing two hitherto largely isolated ecosystems into contact with one another in such a way as to commercialize the Indians’ material culture and dissolve their earlier ecological practices. If we think these days of the scale defined by the commodity and money flows that put our breakfasts upon the table, and how that scale has changed over the last hundred years, then immediately it becomes apparent that there is an instability in the definition of scale which arises out of practices of capital accumulation, commodity exchange, and the like (see chapters 9 and 10).

Yet, as Smith (1992: 72) remarks, “the theory of the production of geographical scale” (to which I would add also the production of temporalities)—“is grossly underdeveloped.” It seems to imply the production of a nested hierarchy of scales (from global to local) leaving us always with the political—
ecological question of how to “arbitrate and translate between them.” The ecological argument is incredibly confused on exactly this point. On the one hand the Gaian planetary health care specialists think globally and seek to act globally, while the bioregionalists and social anarchists want to think and act locally, presuming, quite erroneously, that whatever is good for the locality is good for the continent or the planet. But at this point the issue becomes profoundly political as well as ecological, for the political power to act, decide upon socio-ecological projects and to regulate their unintended consequences has also to be defined at a certain scale (and in the contemporary world the nation states mostly carved out over the last hundred years maintain a privileged position even though they make no necessary politico-ecological sense). But this also says something very concrete about what any ecosocialist project must confront. On the one hand there will presumably be continuing transformations in human practices that redefine temporal and spatial scales, while on the other hand political power structures must be created that have the capacity to “arbitrate and translate between” the different scales given by different kinds of projects. Here, too, it seems that an ecosocialist perspective has an enormous import for socialist thinking on how human potentialities are to be explored and what kinds of political institutions and power structures can be created that are sensitive to the ecological dimensions of any socialist project.

V. Epilogue

"At the end of every labor process," Marx (1967: 174) once observed, "we get a result that already existed in the imagination of the labourer at its commencement." The purpose of the kind of labor that I have here engaged in, is to try and produce conceptual clarifications that might enter into the political practices of a critique of capitalism and the construction of socialism. But to be realized, as Eckersley so acutely points out, the aspirations released by analyses of this sort "must be critically related to one's knowledge of the present, thereby uniting desire with analysis and [lead on] to informed cultural, social, and political engagement." To bring my argument full circle, that means developing ways to conceptualize and represent ecological issues in ways that speak to the aspirations of the working-class movement, certain segments of the women's and ecologists’ movement, as well as to those African-Americans who, in the Left Bank Jazz Club in Baltimore more than 20 years ago, quite correctly defined their main environmental problem as the presidency of Richard Nixon.
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