WHAT IS SOCIAL ECOLOGY?

Social ecology is based on the conviction that nearly all of our present ecological problems originate in deep-seated social problems. It follows, from this view, that these ecological problems cannot be understood, let alone solved, without a careful understanding of our existing society and the irrationalities that dominate it. To make this point more concrete: economic, ethnic, cultural, and gender conflicts, among many others, lie at the core of the most serious ecological dislocations we face today – apart, to be sure, from those that are produced by natural catastrophes.

If this approach seems a bit too sociological for those environmentalists who identify the primary ecological problem as being the preservation of wildlife or wilderness, or more broadly as attending to "Gaia" to achieve planetary "oneness," they might wish to consider certain recent developments. The massive oil spills that have occurred over the past two decades, the extensive deforestation of tropical forests and magnificent ancient trees in temperate areas, and vast hydroelectric projects that flood places where people live, to cite only a few problems, are sobering reminders that the real

Social Ecology and Communalism By Murray Bookchin (Author), Eirik Eiglad (Editor) (2007) battleground on which the ecological future of the planet will be decided is clearly a social one, particularly between corporate power and the long-range interests of humanity as a whole.

Indeed, to separate ecological problems from social problems – or even to play down or give only token recognition to their crucial relationship – would be to grossly misconstrue the sources of the growing environmental crisis. In effect, the way human beings deal with each other as social beings is crucial to addressing the ecological crisis. Unless we clearly recognize this, we will fail to see that the hierarchical mentality and class relationships that so thoroughly permeate society are what has given rise to the very idea of dominating the natural world.

Unless we realize that the present market society, structured around the brutally competitive imperative of "grow or die," is a thoroughly impersonal, self-operating mechanism, we will falsely tend to blame other phenomena – such as technology or population growth – for growing environmental dislocations. We will ignore their root causes, such as trade for profit, industrial expansion for its own sake, and the identification of progress with corporate self-interest. In short, we will tend to focus on the *symptoms* of a grim social pathology rather than on the pathology itself, and our efforts will be directed toward limited goals whose attainment is more cosmetic than curative.

Some critics have recently questioned whether social ecology has treated the issue of spirituality in ecological politics adequately. In fact, social ecology was among the earliest of contemporary ecologies to call for a sweeping change in existing spiritual values. Indeed, such a change would involve a far-reaching transformation of our prevailing mentality of domination into one of complementarity, one that sees our role in the natural world as

creative, supportive, and deeply appreciative of the well-being of nonhuman life. In social ecology a truly natural spirituality, free of mystical regressions, would center on the ability of an emancipated humanity to function as ethical agents for diminishing needless suffering, engaging in ecological restoration, and fostering an aesthetic appreciation of natural evolution in all its fecundity and diversity.

Thus, in its call for a collective effort to change society, social ecology has never eschewed the need for a radically new spirituality or mentality. As early as 1965, the first public statement to advance the ideas of social ecology concluded with the injunction: "The cast of mind that today organizes differences among human and other life-forms along hierarchical lines of 'supremacy' or 'inferiority' will give way to an outlook that deals with diversity in an ecological manner - that is, according to an ethics of complementarity."1 In such an ethics, human beings would complement nonhuman beings with their own capacities to produce a richer, creative, and developmental whole - not as a "dominant" species, but as a supportive one. Although this ethics, expressed at times as an appeal for the "respiritization of the natural world," recurs throughout the literature of social ecology, it should not be mistaken for a theology that raises a deity above the natural world or even that seeks to discover one within it. The spirituality advanced by social ecology

 Murray Bookchin, "Ecology and Revolutionary Thought," originally published in the libertarian socialist periodical Comment (September 1965) and collected, together with all my major essays of the 1960s, in Post-Scarcity Anarchism (Berkeley: Ramparts Press, 1972; reprinted Montréal: Black Rose Books, 1977; reprinted Oakland: AK Press, 2004). The expression "ethics of complementarity" is from my The Ecology of Freedom: The Emergence and Dissolution of Hierarchy (San Francisco: Cheshire Books, 1982; revised edition Montréal: Black Rose Books, 1991; reprinted with a new introduction by AK Press, 2005). is definitively *naturalist* (as one would expect, given its relation to ecology itself, which stems from the biological sciences) rather than supernaturalistic or pantheistic areas of speculation.

The effort in some quarters of the ecology movement to prioritize the need to develop a pantheistic "eco-spirituality" over the need to address social factors raises serious questions about their ability to come to grips with reality. At a time when a blind social mechanism - the market - is turning soil into sand, covering fertile land with concrete, poisoning air and water, and producing sweeping climatic and atmospheric changes, we cannot ignore the impact that an aggressive hierarchical and exploitative class society has on the natural world. We must face the fact that economic growth, gender oppressions, and ethnic domination - not to speak of corporate, state, and bureaucratic incursions on human wellbeing - are much more capable of shaping the future of the natural world than are privatistic forms of spiritual self-redemption. These forms of domination must be confronted by collective action and by major social movements that challenge the social sources of the ecological crisis, not simply by personalistic forms of consumption and investment that often go under the oxymoronic rubric of "green capitalism." The present highly cooptative society is only too eager to find new means of commercial aggrandizement and to add ecological verbiage to its advertising and customer relations efforts.

Nature and Society

To escape from this profit-oriented image of ecology, let us begin with some basics - namely, by asking what society and the natural world actually are. Among the many definitions of nature that have been formulated over time, the one that has the most affinity with social ecology is rather elusive and often difficult to grasp because understanding and articulating it requires a certain way of thinking - one that stands at odds with what is popularly called "linear thinking." This "nonlinear" or organic way of thinking is developmental rather than analytical, or in more technical terms, it is dialectical rather than instrumental. It conceives the natural world as a developmental process, rather than the beautiful vistas we see from a mountaintop or images fixed on the backs of picture postcards. Such vistas and images of nonhuman nature are basically static and immobile. As we gaze over a landscape, to be sure, our attention may momentarily be arrested by the soaring flight of a hawk, or the bolting leap of a deer, or the low-slung shadowy lope of a coyote. But what we are really witnessing in such cases is the mere kinetics of physical motion, caught in the frame of an essentially static image of the scene before our eyes. Such static images deceive us into believing in the "eternality" of single moments in nature.

But nonhuman nature is more than a scenic view, and as we examine it with some care, we begin to sense that it is basically an evolving and unfolding phenomenon, a richly fecund, even dramatic development that is forever changing. I mean to define nonhuman nature precisely as an evolving process, as the totality, in fact, of its evolution. Nature, so concerned, encompasses the development from the inorganic into the organic, and from the less differentiated and relatively limited world of unicellular organisms into that of multicellular ones equipped with simple, then complex, and in time fairly intelligent neural apparatuses that allow them to make innovative choices. Finally, the acquisition of warm-bloodedness

gives to organisms the astonishing flexibility to exist in the most demanding climatic environments.

This vast drama of nonhuman nature is in every respect stunning and wondrous. Its evolution is marked by increasing subjectivity and flexibility and by increasing differentiation that makes an organism more adaptable to new environmental challenges and opportunities and that better equips living beings (specifically human beings) to alter their environment to meet their own needs rather than merely adapt to environmental changes. One may speculate that the potentiality of matter itself - the ceaseless interactivity of atoms in forming new chemical combinations to produce ever more complex molecules, amino acids, proteins, and under suitable conditions, elementary life-forms - is inherent in inorganic nature.2 Or one may decide quite matter-of-factly that the "struggle for existence" or the "survival of the fittest" explains why increasingly subjective and more flexible beings are capable of addressing environmental change more effectively than are less subjective and flexible beings. But the simple fact remains that these evolutionary dramas did occur, indeed the evidence is carved in stone in the fossil record. That nonhuman nature is this record, this history, this developmental or evolutionary process, is a very sobering fact that cannot be ignored without ignoring reality itself.

Conceiving nonhuman nature as its own interactive evolution rather than as a mere scenic vista has profound implications - ethical as well as biological - for ecologically minded people. Human beings embody, at least potentially, attributes of nonhuman development that place them squarely within organic evolution. They are not "natural aliens," to use Neil Evernden's phrase, strong exotics, phylogenetic deformities that, owing to their tool-making capacities, "cannot evolve with an ecosystem anywhere." 3 Nor are they "intelligent fleas," to use the language of Gaian theorists who believe that the earth ("Gaia") is one living organism.4 These untenable disjunctions between humanity and the evolutionary process are as superficial as they are potentially misanthropic. Humans are highly intelligent, indeed, very self-conscious primates, which is to say that they have emerged - not diverged - from a long evolution of vertebrate life-forms into mammalian and finally primate life-forms. They are a product of a significant evolutionary trend toward intellectuality, self-awareness, will, intentionality, and expressiveness, be it in verbal or in body language.

Human beings belong to a natural continuum, no less than their primate ancestors and mammals in general. To depict them as "aliens" that have no place or pedigree in natural evolution, or to see them essentially as an infestation that parasitizes the planet the way fleas parasitize dogs and cats, is not only bad ecology but bad thinking. Lacking any sense of process, this kind of thinking – regrettably so commonplace among ethicists – radically divides the nonhuman from the human. Indeed, to the degree environmental

^{2.} I am not saying that complexity necessarily yields subjectivity, merely that it is difficult to conceive of subjectivity without complexity, specifically the nervous system. Human beings, as active agents in changing their environments to suit their needs, could not have achieved their present level of control over their environments without their extraordinary complex brains and nervous systems — a remarkable example of the specialization of an organ system that had highly general functions.

^{3.} Neil Evernden, The Natural Alien (Toronto: University of Toronto Press, 1985), p. 109.

^{4.} Quoted in Alan Wolfe, "Up from Humanism," American Prospect (Winter 1991), p. 125.

thinkers romanticize nonhuman nature as wilderness and see it as more authentically "natural" than the works of humans, they freeze nonhuman nature as a circumscribed domain in which human innovation, foresight, and creativity have no place and offer no possibilities.

The truth is that human beings not only belong in nature, they are products of a long, natural evolutionary process. Their seemingly "unnatural" activities - like the development of technology and science, the formation of mutable social institutions, highly symbolic forms of communication and aesthetic sensibilities, and the creation of towns and cities - all would have been impossible without the large array of physical human attributes that have been aeons in the making, be they the large human brain or the bipedal motion that frees human hands for making tools and carrying food. In many respects, human traits are enlargements of nonhuman traits that have been evolving over the ages. Increasing care for the young, cooperation, the substitution of mentally guided behavior for largely instinctive behavior - all are present more keenly in human behavior. Among humans, as opposed to nonhuman beings, these traits are developed sufficiently to reach a degree of elaboration and integration that yields cultures, comprising institutions of families, bands, tribes, hierarchies, economic classes, and the state - in short, highly mutable societies for which there is no precedent in the nonhuman world, unless the genetically programmed behavior of insects is to be regarded as social. In fact, the emergence and development of human society has been a continual process of shedding instinctive behavioral traits and of clearing a new terrain for potentially rational behavior.

Human beings always remain rooted in their biological evolutionary history, which we may call "first nature," but they

produce a characteristically human social nature of their own, which we may call "second nature." Far from being unnatural, human second nature is eminently a creation of organic evolution's first nature. To write second nature out of nature as a whole, or indeed to minimize it, is to ignore the creativity of natural evolution itself and to view it one-sidedly. If "true" evolution embodies itself simply in creatures like grizzly bears, wolves, and whales - generally, animals that people find aesthetically pleasing or relatively intelligent - then human beings are de-natured. Such views, whether they see human beings as "aliens" or as "fleas," essentially place them outside the self-organizing thrust of natural evolution toward increasing subjectivity and flexibility. The more enthusiastic proponents of this de-naturing of humanity may see human beings as existing apart from nonhuman evolution, as a "freaking," as Paul Shepard put it, of the evolutionary process. Others simply avoid the problem of clarifying humanity's unique place in natural evolution by promiscuously putting human beings on a par with beetles in terms of their "intrinsic worth." The "either/ or" propositional thinking that produces such obfuscations either separates the social from the organic altogether or flippantly makes it disappear into the organic, resulting in an inexplicable dualism at one extreme or a naive reductionism at the other. The dualistic approach, with its quasi-theological premise that the world was "made" for human use, is saddled with the name anthropoce strism, while the reductionist approach, with its almost meaningless notion of a "biocentric democracy," is saddled with the name biocentrism.

The bifurcation of the human from the nonhuman reflects a failure to think organically or to approach evolutionary phenomena with an evolutionary way of thought. Needless to say, if nature were no more than a scenic vista, then mere metaphoric and poetic

descriptions of it might suffice to replace systematic thinking about it. But nature is the history of nature, an evolutionary process that is going on to one degree or another under our very eyes, and as such, we dishonor it by thinking of it in anything but a processual way. That is to say, we require a way of thinking that recognizes that "what is," as it seems to lie before our eyes, is always developing into "what is not," that it is engaged in a continual self-organizing process in which past and present, along a richly differentiated but shared continuum, give rise to a new potentiality for an ever-richer degree of wholeness. Life, clearly in its human form, becomes openendedly innovative and transcends its relatively narrow capacity to adapt only to a pregiven set of environmental conditions. As V. Gordon Childe once put it, "Man makes himself; he is not preset to survive by his genetic makeup."

By the same token, a processual, organic, and dialectical way of thinking has little difficulty in locating and explaining the emergence of the social out of the biological, of second nature out of first nature. It seems more fashionable these days to deal with ecologically significant social issues like an accountant. Thus, one simply juxtaposes two lists of cultural facts - one labeled "old paradigm" and the other, "new paradigm" - as though they were columns of debits and credits. Obviously distasteful items like centralization are listed under "old paradigm," while more appealing ones like decentralization are regarded as "new paradigm." The result is an inventory of bumper-sticker slogans whose "bottom line" is patently absolute good versus absolute evil. All of this may be deliciously synoptic and easy on the eyes, but it is singularly lacking as food for the brain. To truly know and be able to give interpretive meaning to the social issues and ideas so arranged, we should want to know how each one derived from the other and what its part is in an overall development. What, in fact, is meant by "decentralization," and how, in the history of human society, does it derive from or give rise to centralization? Again, we need processual thinking to comprehend processual realities, if we are to gain some sense of direction – practical as well as theoretical – in addressing our ecological problems.

Social ecology seems to stand alone, at present, in calling for an organic, developmental way of thinking out problems that are basically organic and developmental in character. The very definition of the natural world as a development (albeit not any one) indicates the need for organic thinking, as does the derivation of human from nonhuman nature – a derivation from which we can draw far-reaching conclusions for the development of an ecological ethics that in turn can provide serious guidelines for the solution of our ecological problems.

Social ecology calls upon us to see that the natural world and the social are interlinked by evolution into one nature that consists of two differentiations: first or biotic nature, and second or social nature. Social nature and biotic nature share an evolutionary potential for greater subjectivity and flexibility. Second nature is the way in which human beings, as flexible, highly intelligent primates, inhabit and alter the natural world. That is to say, people create an environment that is most suitable for their mode of existence. In this respect, second nature is no different from the environment that every animal, depending upon its abilities, partially creates as well as primarily adapts to – the biophysical circumstances or ecocommunity in which it must live. In principle, on this very simple level, human beings are doing nothing that differs from the survival activities of nonhuman beings, be it building beaver dams or digging gopher holes.

Hence human beings, emerging from an organic evolutionary process, initiate, by the sheer force of their biological and survival needs, a social evolutionary development that clearly involves their organic evolutionary process. Owing to their naturally endowed intelligence, powers of communication, capacity for institutional organization, and relative freedom from instinctive behavior, they refashion their environment – as do nonhuman beings – to the full extent that their biological equipment allows. This equipment

makes it possible for them to engage not only in social life but in social development. It is not so much that human beings, in principle, behave differently from animals or are inherently more problematical in a strictly ecological sense, as it is that the social development by which they grade out of their biological development often becomes more problematical for themselves and nonhuman life. How these problems emerge, the ideologies they produce, the extent to which they contribute to biotic evolution or abort it, and the damage they inflict on the planet as a whole lie at the very heart of the modern ecological crisis. Second nature as it exists today, far from marking the fulfillment of human potentialities, is riddled by contradictions, antagonisms, and conflicting interests that have distorted humanity's unique capacities for development. Its future prospects encompass both the danger of tearing down the biosphere and alas, given the struggle to achieve an ecological society, the capacity to provide an entirely new ecological dispensation.

Social Hierarchy and Domination

How, then, did the social emerge from the biological? We have good reason to believe that as biological facts such as kin lineage, gender distinctions, and age differences were slowly institutionalized, their uniquely social dimension was initially quite egalitarian. Later this development acquired an oppressive hierarchical and then an exploitative class form. The lineage or blood tie in early prehistory obviously formed the organic basis of the family. Indeed, it joined together groups of families into bands, clans, and tribes, through either intermarriage or fictive forms of descent, thereby forming

the earliest social horizon of our ancestors. More than in other mammals, the simple biological facts of human reproduction and the protracted maternal care of the human infant tended to knit siblings together and produced a strong sense of solidarity and group inwardness. Men, women, and their children were socialized by means of a fairly stable family life, based on mutual obligation and an expressed affinity that was often sanctified by initiation ceremonies and marital yows of one kind or another.

Human beings who were outside the family and all its elaborations into bands, clans, tribes, and the like, were regarded as "strangers" who could alternatively be welcomed hospitably or enslaved or put to death. What mores existed were based on unreflective customs that seemed to have been inherited from time immemorial. What we call morality began as the rules or commandments of a deity or various deities, in that moral beliefs required some kind of supernatural or mystical reinforcement or sanctification to be accepted by a community. Only later, beginning with the ancient Greeks, did ethics emerge, based on rational discourse and reflection. The shift from blind custom to a commanding morality and finally to a rational ethics occurred with the rise of cities and urban cosmopolitanism, although by no means did custom and morality diminish in importance. Humanity, gradually disengaging its social organization from the biological facts of blood ties, began to admit the "stranger" and increasingly recognize itself as a shared community of human beings (and ultimately a community of citizens) rather than an ethnic folk or group of kinsmen.

In this primordial and socially formative world, other human biological traits were also reworked from the strictly natural to the social. One of these was the fact of age and its distinctions. In social groups among early humans, the absence of a written language helped to confer on the elderly a high degree of status, for it was they who possessed the traditional wisdom of the community, including knowledge of the traditional kinship lines that prescribed marital ties in obedience to extensive incest taboos as well as survival techniques that had to be acquired by both the young and the mature members of the group. In addition, the biological fact of gender distinctions was slowly reworked along social lines into what were initially complementary sororal and fraternal groups. Women formed their own food-gathering and care-taking groups with their own customs, belief systems, and values, while men formed their own hunting and warrior groups with their own behavioral characteristics, mores, and ideologies.

From everything we know about the socialization of the biological facts of kinship, age, and gender groups – their elaboration into early institutions – there is no reason to doubt that these groups existed initially in complementary relationships with one another. Each, in effect, needed the others to form a relatively stable whole. No one group "dominated" the others or tried to privilege itself in the normal course of things. Yet even as the biological underpinnings of consociation were, over time, further reworked into social institutions, so the social institutions were slowly reworked, at various periods and in various degrees, into hierarchical structures based on command and obedience. I speak here of a historical trend, in no way predetermined by any mystical force or deity, and one that was often a very limited development among many preliterate or aboriginal cultures and even in certain fairly elaborate civilizations.

Hierarchy in its earliest forms was probably not marked by the harsh qualities it has acquired over history. Elders, a: the very beginnings of gerontocracy, were not only respected for their wisdom but were often beloved of the young, with affection that was often reciprocated in kind. We can probably account for the increasing harshness of later gerontocracies by supposing that the elderly, burdened by their failing physical powers and dependent upon their community's goodwill, were more vulnerable to abandonment in periods of material want than any other part of the population. "Even in simple food-gathering cultures," observed anthropologist Paul Radin, "individuals above fifty, let us say, apparently arrogate to themselves certain powers and privileges which benefited themselves specifically, and were not necessarily, if at all, dictated by considerations either of the rights of others or the welfare of the community."5 In any case, that gerontocracy was probably the earliest form of hierarchy is corroborated by its existence in communities as disparate as the Australian Aborigines, tribal societies in East Africa, and Native communities in the Americas. Many tribal councils throughout the world were really councils of elders, an institution that never completely disappeared (as the word alderman suggests), even after they were overlaid by warrior societies, chiefdoms, and kingships.

Patricentricity, in which masculine values, institutions, and forms of behavior prevail over feminine ones, seems to have developed in the wake of gerontocracy. Initially, the emergence of patricentricity may have been a useful adjunct to a life deeply rooted in the primordial natural world; preliterate and early aboriginal societies were essentially small domestic communities in which the authentic center of material life was the home, not the "men's

house" so widely present in later, more elaborate tribal societies. Male rule, if such it can strictly be called, takes on its harshest and most coercive form in patriarchy, an institution in which the eldest male of an extended family or clan has a life-and-death command over all other members of the group. Women may be ordered whom to marry, but they are by no means the exclusive or even the principal object of a patriarch's domination. Sons, like daughters, may be ordered how to behave at the patriarch's command or be killed at his whim.

So far as patricentricity is concerned, however, the authority and prerogative of the male are the product of a long, often subtly negotiated development in which the male fraternity edges out the female sorority by virtue of the former's growing "civil" responsibilities. Increasing population, marauding bands of outsiders whose migrations may be induced by drought or other unfavorable conditions, and vendettas of one kind or another, to cite common causes of hostility or war, create a new "civil" sphere side by side with woman's domestic sphere, and the former gradually encroaches upon the latter. With the appearance of cattle-drawn plow agriculture, the male, who is the "master of the beasts," begins to invade the horticultural sphere of woman, whose primacy as the food cultivator and food gatherer gives her cultural preeminence in the community's internal life, slowly diluting her preeminence. Warrior societies and chiefdoms carry the momentum of male dominance to the level of a new material and cultural dispensation. Male dominance becomes extremely active and ultimately yields a world in which male elites dominate not only women but also, in the form of classes, other men.

The causes of the emergence of hierarchy are transparent enough: the infirmities of age, increasing population numbers, natural disasters, technological changes that privileged activities of hunting and animal husbandry over horticultural responsibilities, the growth of civil society, and the spread of warfare, all served to enhance the male's standing at the expense of the female's. It must be emphasized that hierarchical domination, however coercive it may be, is not the same thing as class exploitation. As I wrote in The Ecology of Freedom, hierarchy

must be viewed as institutionalized relationships, relationships that living beings literally institute or create but which are neither ruthlessly fixed by instinct on the one hand nor idiosyncratic on the other. By this, I mean that they must comprise a clearly social structure of coercive and privileged ranks that exist apart from the idiosyncratic individuals who seem to be dominant within a given community, a hierarchy that is guided by a social logic that goes beyond individual interactions or inborn patterns of behavior.6

They are not reducible to strictly economic relationships based on the exploitation of labor. In fact, many chiefs earn their prestige, so essential to their authority, by disposing of gifts, and even by a considerable disaccumulation of their personal goods. The respect accorded to many chiefs is earned, not by hoarding surpluses as a source of power but by disposing of them as evidence of generosity.

By contrast, classes tend to operate along different lines. In class societies power is usually gained by the acquisition of wealth, not by its disposal; rulership is guaranteed by outright physical coercion,

not simply by persuasion; and the state is the ultimate guarantor of authority. That hierarchy is historically more entrenched than class can perhaps be verified by the fact that despite sweeping changes in class societies, even of an economically egalitarian kind, women have still been dominated beings for millennia. By the same token, the abolition of class rule and economic exploitation offers no guarantee whatever that elaborate hierarchies and systems of domination will also disappear.

In nonhierarchical societies, certain customs guide human behavior along basically decent lines. Of primary importance among early customs was the principle of the irreducible minimum (to use Paul Radin's expression), the shared notion that all members of the same community are entitled to the means of life, irrespective of the amount of work they perform. To deny anyone food, shelter, and the basic means of life because of their infirmities or even their frivolous behavior would have been seen as a heinous denial of the very right to live. Nor were the basic resources needed to sustain the community ever permitted to be privately owned; overriding individualistic control was the broader principle of usufruct - the notion that the means of life that were not being used by one group could be used, as needed, by another. Thus unused land, orchards, and even tools and weapons, if left idle, were often at the disposition of anyone in the community who needed them. Lastly, custom fostered the practice of mutual aid, the rather sensible cooperative sharing of things and labor, so that an individual or family in straitened circumstances could expect to be helped by others. Taken as whole, these customs became so sedimented into organic society that they persisted long after hierarchy became oppressive and class society became predominant.

The Idea of Dominating Nature

Nature, in the sense of the biotic environment from which humans take the simple things they need for survival, often has no meaning to preliterate peoples as a general concept. Immersed in it as they are, even celebrating animistic rituals in an environment they view as a nexus of life, often imputing their own social institutions to the behavior of nonhuman species, as in the case of beaver "lodges" and humanlike spirits, the concept of "nature" as such eludes them. Words that express our conventional notions of nature are not easy to find, if they exist at all, in the languages of aboriginal peoples.

With the rise of hierarchy and domination, however, the seeds were planted for the belief that first nature not only exists as a world that is increasingly distinguishable from the community but one that is hierarchically organized and can be dominated by human beings. The worldview of magic reveals this shift clearly. Here nature was not conceived as a world apart; rather, a practitioner of magic essentially pleaded with the "chief spirit" of a game animal (itself a puzzling figure in the dream world) to coax it in the direction of an arrow or a spear. Later, magic became almost entirely instrumental; the hunter used magical techniques to "coerce" the game to become prey. While the earliest forms of magic may be regarded as the practices of a generally nonhierarchical and egalitarian community, the later kinds of animistic beliefs betray a more or less hierarchical view of the natural world and of latent human powers of domination over reality.

We must emphasize here that the *idea* of dominating nature has its primary source in the domination of human by human and in the structuring of the natural world into a hierarchical chain of being (a static conception, incidentally, that has no relationship to the dynamic evolution of life into increasingly advanced forms of subjectivity and flexibility). The biblical injunction that gave command of the living world to Adam and Noah was above all an expression of a social dispensation. Its idea of dominating nature - so essential to the view of the nonhuman world as an object of domination - can be overcome only through the creation of a society without those class and hierarchical structures that make for rule and obedience in private as well as public life, and the objectifications of reality as mere materials for exploitation. That this revolutionary dispensation would involve changes in attitudes and values should go without saying. But new ecological attitudes and values will remain vaporous if they are not given substance and solidity through real and objective institutions (the structures by which humans concretely interact with each other) and through the tangible realities of everyday life from childrearing to work and play. Until human beings cease to live in societies that are structured around hierarchies as well as economic classes, we shall never be free of domination, however much we try to dispel it with rituals, incantations, ecotheologies, and the adoption of seemingly "natural" lifeways.

The idea of dominating nature has a history that is almost as old as that of hierarchy itself. Already in the Gilgamesh epic of Mesopotamia, a drama whose written form dates back some four thousand years, the hero defies the deities and cuts down their sacred trees in his quest for immortality. The Odyssey is a vast travelogue of the Greek warrior, more canny than heroic, who in his wanderings essentially subdues the nature deities that the Hellenic world had inherited from its less well-known precursors (ironically, the dark pre-Olympian world that has been revived by purveyors of eco-mysticism and spiritualism). Long before the emergence of

modern science, "linear" rationality, and "industrial society" (to cite causal factors that are invoked so flippantly in the modern ecology movement), hierarchical and class societies laid waste to much of the Mediterranean basin as well as the hillsides of China, beginning a vast remaking and often despoliation of the planet.

To be sure, human second nature, in inflicting harm on first nature, created no Garden of Eden. More often than not, it despoiled much that was beautiful, creative, and dynamic in the biotic world, just as it ravaged human life itself in murderous warfare, genocide, and acts of heartless oppression. Social ecology maintains that the future of human life goes hand in hand with the future of the nonhuman world, yet it does not overlook the fact that the harm that hierarchical and class society inflicted on the natural world was more than matched by the harm it inflicted on much of humanity.

However troubling the ills produced by second nature, the customs of the irreducible minimum, usufruct, and mutual aid cannot be ignored in any account of anthropology and history. These customs persisted well into historical times and surfaced sometimes explosively in massive popular uprisings, from revolts in ancient Sumer to the present time. Many of those revolts demanded the recovery of caring and communistic values, at times when these were coming under the onslaught of elitist and class oppression. Indeed, despite the armies that roamed the landscape of warring areas, the tax-gatherers who plundered ordinary village peoples, and the daily abuses that overseers inflicted on peasants and workers, community life still persisted and retained many of the cherished values of a more egalitarian past. Neither ancient despots nor feudal lords could fully obliterate them in peasant villages and in the towns with independent craft associations. In

ancient Greece, a rational philosophy that rejected the encumbering of thought and political life by extravagant wants, as well as a religion based on austerity, tended to scale down needs and delimit human appetites for material goods. Together they served to slow the pace of technological innovation sufficiently that when new means of production were developed, they could be sensitively integrated into a balanced society. In medieval times, markets were still modest, usually local affairs, in which guilds exercised strict control over prices, competition, and the quality of the goods produced by their members.

"Grow or Die"

But just as hierarchies and class structures had acquired momentum and permeated much of society, so too the market began to acquire a life of its own and extended its reach beyond a few limited regions into the depths of vast continents. Where exchange had once been primarily a means to provide for essential needs, limited by guilds or by moral and religious restrictions, long-distance trade subverted those limits. Not only did trade place a high premium on techniques for increasing production; it also became the progenitor of new needs, many of them wholly artificial, and gave a tremendous impetus to consumption and the growth of capital. First in northern Italy and the European lowlands, and later – and most decisively – in England during the seventeenth and eighteenth centuries, the production of goods exclusively for sale and profit (the production of the capitalistic commodity) rapidly swept aside all cultural and social barriers to market growth.

By the late eighteenth and early nineteenth centuries, the new industrial capitalist class, with its factory system and commitment to limitless expansion, had embarked on its colonization of the entire world, including most aspects of personal life. Unlike the feudal nobility, with its cherished lands and castles, the bourgeoisie had no home but the marketplace and its bank vaults. As a class, it turned more and more of the world into a domain of factories. In the ancient and medieval worlds, entrepreneurs had normally invested profits in land and lived like country gentry, given the prejudices of the times against "ill-gotten" gains from trade. But the industrial capitalists of the modern world spawned a bitterly competitive marketplace that placed a high premium on industrial expansion and the commercial power it conferred, functioning as though growth were an end in itself.

In social ecology it is crucially important to recognize that industrial growth did not and does not result from changes in cultural outlook alone - least of all from the impact of scientific and technological rationality on society. Growth occurs above all from harshly objective factors churned up by the expansion of the market itself, factors that are largely impervious to moral considerations and efforts at ethical persuasion. Indeed, despite the close association between capitalist development and technological innovation, the most driving imperative of any enterprise in the harshly capitalist marketplace, given the savagely dehumanizing competition that prevails there, is the need of an enterprise to grow in order to avoid perishing at the hands of its savage rivals. Important as even greed may be as a motivating force, sheer survival requires that the entrepreneur must expand his or her productive apparatus in order to remain ahead of others. Each capitalist, in short, must try to devour his or her rivals - or else be devoured by them. The key to

this law of life – to survival – is expansion, and the quest for evergreater profits, to be invested, in turn, in still further expansion. Indeed, the notion of progress, once regarded as faith in the evolution of greater human cooperation and care, is now identified with ever greater competition and reckless economic growth.

The effort by many well-intentioned ecology theorists and their admirers to reduce the ecological crisis to a cultural crisis rather than a social one becomes very obfuscatory and misleading. However ecologically well-meaning an entrepreneur may be, the harsh fact is that his or her very survival in the marketplace precludes the development of a meaningful ecological orientation. The adoption of ecologically sound practices places a morally concerned entrepreneur at a striking and indeed fatal disadvantage in a competitive relationship with a rival – who, operating without ecological guidelines and moral constraints, produces cheap commodities at lower costs and reaps higher profits for further capital expansion. The marketplace has its own law of survival: only the most unscrupulous can rise to the top of that competitive struggle.

Indeed, to the extent that environmental movements and ideologies merely moralize about the wickedness of our antiecological society and call for changes in personal lifestyles and attitudes, they obscure the need for concerted social action and tend to deflect the struggle for far-reaching social change. Meanwhile, corporations are skillfully manipulating this popular desire for personal ecologically sound practices by cultivating ecological mirages. Mercedes-Benz, for example, declaims in a two-page magazine advertisement, decorated with a bison painting from a Paleolithic cave wall, that "we must work to make progress more environmentally sustainable by including environmental themes in

the planning of new products." Such messages are commonplace in Germany, one of western Europe's worst polluters. Such advertising is equally manipulative in the United States, where leading polluters piously declare that for them, "every day is Earth Day."

The point social ecology emphasizes is not that moral and spiritual persuasion and renewal are meaningless or unnecessary; they are necessary and can be educational. But modern capitalism is structurally amoral and hence impervious to moral appeals. The modern marketplace is driven by imperatives of its own, irrespective of what kind of CEO sits in a corporation's driver's seat or holds on to its handlebars. The direction it follows depends not upon ethical prescriptions and personal inclinations but upon objective laws of profit or loss, growth or death, eat or be eaten, and the like. The maxim "Business is business" explicitly tells us that ethical, religious, psychological, and emotional factors have virtually no place in the predatory world of production, profit, and growth. It is grossly misleading to think that we can divest this harsh, indeed mechanistic world of its objective characteristics by means of ethical appeals.

A society based on the law of "grow or die" as its all-pervasive imperative must of necessity have a devastating impact on first nature. Nor does "growth" here refer to population growth; the current wisdom of population-boomers to the contrary, the most serious disruptors of ecological cycles are found in the large industrial centers of the world, which are not only poisoning water and air but producing the greenhouse gases that threaten to melt the ice caps and flood vast areas of the planet. Suppose we could somehow cut the world's population in half: would growth and the

despoliation of the earth be reduced at all? Capital would insist that it was "indispensable" to own two or three of every appliance, motor vehicle, or electronic gadget, where one would more than suffice if not be too many. In addition, the military would continue to demand ever more lethal instruments of death and devastation, of which new models would be provided annually.

Nor would "softer" technologies, if produced by a grow-ordie market, fail to be used for destructive capitalistic ends. Two centuries ago, large forested areas in England were hacked into fuel for iron forges with axes that had not changed appreciably since the Bronze Age, and ordinary sails guided ships laden with commodities to all parts of the world well into the nineteenth century. Indeed, much of the United States was cleared of its forests, wildlife, and aboriginal inhabitants with tools and weapons that could have easily been recognized, however much they were modified, by Renaissance people centuries earlier. What modern technics did was accelerate a process that had been well under way at the close of the Middle Ages. It cannot be held solely responsible for endeavors that were under way for centuries; it essentially abetted damage caused by the ever-expanding market system, whose roots, in turn, lay in one of history's most fundamental social transformations: the elaboration of a system of production and distribution based on exchange rather than complementarity and mutual aid.

An Ecological Society

Social ecology is an appeal not only for moral regeneration but, and above all, for social reconstruction along ecological lines. It emphasizes that, taken by itself, an ethical appeal to the powers that be, based on blind market forces and ruthless competition, is certain to be futile. Indeed, taken by itself, such an appeal obscures the real power relationships that prevail today by making the attainment of an ecological society seem merely a matter of changing individual attitudes, spiritual renewal, or quasi-religious redemption.

Although always mindful of the importance of a new ethical outlook, social ecology seeks to redress the ecological abuses that the prevailing society has inflicted on the natural world by going to the structural as well as the subjective sources of notions like the domination of first nature. That is, it challenges the entire system of domination itself - its economy, its misuse of technics, its administrative apparatus, its degradations of political life, its destruction of the city as a center of cultural development, indeed the entire panoply of its moral hypocrisies and defiling of the human spirit - and seeks to eliminate the hierarchical and class edifices that have imposed themselves on humanity and defined the relationship between nonhuman and human nature. It advances an ethics of complementarity in which human beings play a supportive role in perpetuating the integrity of the biosphere - the potentiality of human beings to be the most conscious products of natural evolution. Indeed, humans have an ethical responsibility to function creatively in the unfolding of that evolution. Social ecology thus stresses the need to embody its ethics of complementarity in palpable social institutions that will make human beings conscious ethical agents in promoting the well-being of themselves and the nonhuman world. It seeks the enrichment of the evolutionary process by the diversification of life-forms and the application of reason to a wondrous remaking of the planet along ecological lines. Notwithstanding most romantic views, "Mother Nature" does not necessarily "know best." To oppose activities of the corporate world does not require one to become naively biocentric. Indeed by the same token, to applaud humanity's potential for foresight, rationality, and technological achievement does not make one anthropocentric. The loose usage of such buzzwords, so commonplace in the ecology movement today, must be brought to a definitive end by reflective discussion, not by deprecating denunciations.

Social ecology, in effect, recognizes that – like it or not – the future of life on this planet pivots on the future of society. It contends that evolution, both in first nature and in second, is not yet complete. Nor are the two realms so separated from each other that we must choose one or the other – either natural evolution, with its "biocentric" halo, or social evolution, as we have known it up to now, with its "anthropocentric" halo – as the basis for a creative biosphere. We must go beyond both the natural and the social toward a new synthesis that contains the best of both. Such a synthesis must transcend both first and second nature in the form of a creative, self-conscious, and therefore "free nature," in which human beings intervene in natural evolution with their best capacities – their ethical sense, their unequaled capacity for conceptual thought, and their remarkable powers and range of communication.

But such a goal remains mere rhetoric unless a movement gives it logistical and social tangibility. How are we to organize such a movement? Logistically, "free nature" is unattainable without the decentralization of cities into confederally united communities sensitively tailored to the natural areas in which they are located. Ecotechnologies, and of solar, wind, methane, and other renewable sources of energy; organic forms of agriculture; and the design

of humanly scaled, versatile industrial installations to meet the regional needs of confederated municipalities - all must be brought into the service of an ecologically sound world based on an ethics of complementarity. It means too, an emphasis not only on recycling but on the production of high-quality goods that can, in many cases, last for generations. It means the replacement of needlessly insensate labor with creative work and an emphasis on artful craftspersonship in preference to mechanized production. It means the free time to be artful and to fully engage in public affairs. One would hope that the sheer availability of goods, the mechanization of production, and the freedom to choose one's material lifestyle would sooner or later influence people to practice moderation in all aspects of life as a response to the consumerism promoted by the capitalist market.8

But no ethics or vision of an ecological society, however inspired, can be meaningful unless it is embodied in a living politics. By politics, I do not mean the statecraft practiced by what we call politicians - namely, representatives elected or selected to manage public affairs and formulate policies as guidelines for social life. To social ecology, politics means what it meant in the democratic polis of classical Athens some two thousand years ago: direct democracy, the formulation of policies by directly democratic popular assemblies, and the administration of those policies by

8. I spelled out all these views in my 1964-65 essay "Ecology and Revolutionary Thought," and they were assimilated over time by subsequent ecology movements. Many of the technological views advanced in my 1965 essay "Toward a Liberatory Technology" were also assimilated and renamed "appropriate technology," a rather socially neutral expression in comparison with my original term ecotechnology. Both of these essays can be found in Post-Scarcity Anarchism.

mandated coordinators who can easily be recalled if they fail to abide by the decision of the assembly's citizens. I am very mindful that Athenian politics, even in its most democratic periods, was marred by the existence of slavery and patriarchy, and by the exclusion of the stranger from public life. In this respect, to be sure, it differed very little from most of the other ancient Mediterranean civilizations - and certainly ancient Asian ones - of the time. What made Athenian politics unique, however, was that it produced institutions that were extraordinarily democratic - even directly so - by comparison with the republican institutions of the so-called "democracies" of today's world. Either directly or indirectly, the Athenian democracy inspired later, more all-encompassing direct democracies, such as many medieval European towns, the littleknown Parisian "sections" (or neighborhood assemblies) of 1793 that propelled the French Revolution in a highly radical direction, and more indirectly, New England town meetings, and other, more recent attempts at civic self-governance.9

Any self-managed community, however, that tries to live in isolation and develop self-sufficiency risks the danger of becoming parochial, even racist. Hence the need to extend the ecological politics of a direct democracy into confederations of ecocommunities, and to foster a healthy interdependence, rather than an introverted, stultifying independence. Social ecology would be obliged to embody its ethics in a politics of libertarian municipalism, in which municipalities conjointly gain rights to self-governance



^{9.} See "The Forms of Freedom" in Post Scarcity-Anarchism; "The Legacy of Freedom" in The Ecology of Freedom; and "Patterns of Civic Freedom" in From Urbanization to Cities: Towards a New Politics of Citizenship (1982, 1992; rev. ed. London: Cassell, 1995).

through networks of confederal councils, to which towns and cities would be expected to send their mandated, recallable delegates to adjust differences. All decisions would have to be ratified by a majority of the popular assemblies of the confederated towns and cities. This institutional process could be initiated in the neighborhoods of giant cities as well as in networks of small towns. In fact, the formation of numerous "town halls" has already repeatedly been proposed in cities as large as New York and Paris, only to be defeated by well-organized elitist groups that sought to centralize power rather than allow its decentralization.

Power will always belong to elite and commanding strata if it is not institutionalized in face-to-face democracies, among people who are fully empowered as social beings to make decisions in new communal assemblies. Attempts to empower people in this manner and form constitute an abiding challenge to the nation-state – that is, a dual power in which the free municipality exists in open tension with the nation-state. Power that does not belong to the people invariably belongs to the state and the exploitative interests it represents. Which is not to say that diversity is not a desideratum; to the contrary, it is the source of cultural creativity. Still it never should be celebrated in a nationalistic sense of "apartness" from the general interests of humanity as a whole, or else it will regress into the parochialism of folkdom and tribalism.

Should the full reality of citizenship in all its discursiveness and political vitality begin to wane, its disappearance would mark an unprecedented loss in human development. Citizenship, in the classical sense of the term, which involved a lifelong, ethically oriented education in the art of participation in public affairs (not the empty form of national legitimation that it so often consists of today), would disappear. Its loss would mean the atrophying

of a communal life beyond the limits of the family, the waning of a civic sensibility to the point of the shriveled ego, the complete replacement of the public arena with the private world and with private pursuits.

The failure of a rational, socially committed ecology movement would yield a mechanized, aesthetically arid, and administered society, composed of vacuous egos at best and totalitarian automata at worst. Before the planet was rendered physically uninhabitable, there would be few humans who would be able to inhabit it.

Alternatively, a truly ecological society would open the vista of a "free nature" with a sophisticated eco-technology based on solar, wind, and water; carefully treated fossil fuels would be sited to produce power to meet rationally conceived needs. Production would occur entirely for use, not for profit, and the distribution of goods would occur entirely to meet human needs based on norms established by citizens' assemblies and confederations of assemblies. Decisions by the community would be made according to direct, face-to-face procedures with all the coordinative judgments mandated by delegates. These judgments, in turn, would be referred back for discussion, approval, modification, or rejection by the assembly of assemblies (or Commune of communes) as a whole, reflecting the wishes of the fully assembled majority.

We cannot tell how much technology will be expanded a few decades from now, let alone a few generations. Its growth and the prospects it is likely to open over the course of this century alone are too dazzling even for the most imaginative utopian to envision. If nothing else, we have been swept into a permanent technological and communications revolution whose culmination it is impossible to foresee. This amassing of power and knowledge opens two radically opposing prospects: either humanity will truly

destroy itself and its habitat, or it will create a garden, a fruitful and benign world that not even the most fanciful utopian, Charles Fourier, could have imagined.

It is fitting that such dire alternatives should appear now and in such extreme forms. Unless social ecology – with its naturalistic outlook, its developmental interpretations of natural and social phenomena, its emphasis on discipline with freedom and responsibility with imagination – can be brought to the service of such historic ends, humanity may well prove to be incapable of changing the world. We cannot defer the need to deal with these prospects indefinitely: either a movement will arise that will bestir humanity into action, or the last great chance in history for the complete emancipation of humanity will perish in unrestrained self-destruction.