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What is Social Ecology?

Murray Bookchin

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Contents

NATURE AND SOCIETY	8
SOCIAL HIERARCHY AND DOMINATION	15
THE IDEA OF DOMINATING NATURE	21
"GROW OR DIE!"	23
AN ECOLOGICAL SOCIETY	27

is inseparable from the personal, the public interest from the private, the political interest from the social.

The step-by-step reorganization of municipalities, their confederation into ever-larger networks that form a dual power in opposition to the nation-state, the remaking of the constituents of republican representatives into citizens who participate in a direct democracy-all may take a considerable period of time to achieve. But in the end, they alone can potentially eliminate the domination of human by human and thereby deal with those ecological problems whose growing magnitude threatens the existence of a biosphere than can support advanced forms of life. To ignore the need for these sweeping but eminently practical changes would be to let our ecological problems fester and spread to a point where there would no longer be any opportunity to resolve them. Any attempt to ignore their impact on the biosphere or deal with them singly would be recipe for disaster, a guarantee that the anti-ecological society that prevails in most of the world today would blindly hurtle the biosphere as we know it to certain destruction.

vances an ethics of complementarity in which human beings must play a supportive role in perpetuating the integrity of the biosphere, as potentially, at least, the most conscious products of natural evolution. Indeed humans are seen to have a moral responsibility to function creatively in the unfolding of that evolution. Social ecology thus stresses the need for embodying its ethics of complementarity in palpable social institutions that will give active meaning to its goal of wholeness, and of human involvement as conscious and moral agents in the interplay of species. It seeks the cultivation of an affiliation with the interests of the community, one in which the communal interest was placed above personal interest, or, more properly, in which the personal interest was congruent with and realized through the common.

Property, in this ethical constellation, would be shared and, in the best of circumstances, belong to the community as a whole, not to producers ("workers") or owners ("capitalists"). In an ecological society composed of a "Commune of communes," property would belong, ultimately, neither to private producers nor to a nation-state. The Soviet Union gave rise to an overbearing bureaucracy; the anarcho-syndicalist vision to competing "worker-controlled" factories that ultimately had to be knitted together by a labor bureaucracy. From the standpoint of social ecology, property "interests" would become generalized, not reconstituted in different conflicting or unmanageable forms. They would be *municipalized*, rather than nationalized or privatized. Workers, farmers, professionals, and the like would thus deal with municipalized property as citizens, not as members of a vocational or social group. Leaving aside any discussion of such visions as the rotation of work, the citizen who engages in both industrial and agricultural activity, and the professional who also does manual labor, the communal ideas advanced by social ecology would give rise to individuals for whom the collective interest

What literally defines social ecology as "social" is its recognition of the often overlooked fact that nearly all our present ecological problems arise from deep-seated social problems. Conversely, present ecological problems cannot be clearly understood, much less resolved, without resolutely dealing with problems within society. 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 ecological problems with the preservation of wildlife, wilderness, or more broadly, with "Gaia" and planetary "Oneness," it might be sobering to consider certain recent facts. The massive oil spill by an Exxon tanker at Prince William Sound, the extensive deforestation of redwood trees by the Maxxam Corporation, and the proposed James Bay hydroelectric project that would flood vast areas of northern Quebec's forests, to cite only a few problems, should remind us that the real battleground on which the ecological future of the planet will be decided is clearly a social one.

Indeed, to separate ecological problems from social problems--or even to play down or give token recognition to this crucial relationship-- would be to grossly misconstrue the sources of the growing environmental crisis. 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 surely fail to see that the hierarchical mentality and class relationships that so thoroughly permeate society give 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 technology as such or population growth as such for environmental problems. We will ignore their root

causes, such as trade for profit, industrial expansion, 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.

While some have questioned whether social ecology has dealt adequately with issues of spirituality, it was, in fact, among the earliest of contemporary ecologies to call for a sweeping change in existing spiritual values. Such a change would mean a far-reaching transformation of our prevailing mentality of domination into one of complementarity, in which we would see our role in the natural world as creative, supportive, and deeply appreciative of the needs of nonhuman life. In social ecology, a truly *natural* spirituality centers on the ability of an awakened humanity to function as moral agents in diminishing needless suffering, engaging in ecological restoration, and fostering an esthetic appreciation of natural evolution in all its fecundity and diversity.

Thus social ecology has never eschewed the need for a radically new spirituality or mentality in its call for a collective effort to change society. Indeed, 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,

¹ Murray Bookchin, "Ecology and Revolutionary Thought," initially published in the ecoanarchist journal *New Directions in Libertarian Thought* (Sept., 1964), and collected, together with all my major essays of the sixties in *Post-Scarcity Anarchism* (Berkeley: Ramparts Press, 1972; republished, Montreal: Black Rose Books, 1977). The expression "ethics of complementarity" is from *The Ecology of Freedom* (San Francisco: Cheshire Books, 1982; revised edition, Montreal: Black Rose Books, 1991).

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, soil, and aboriginal inhabitants with tools and weapons that would have been easily recognized, however much they were modified, by Renaissance people who had yet to encounter the Industrial Revolution. What modern technics did was to accelerate a process that was well under way at the close of the Middle Ages. It did not devastate the planet on its own; it abetted a phenomenon, the ever-expanding market system that had its roots in one of history's most fundamental social transformations: the elaboration of hierarchy and class into a system of distribution based on exchange rather than complementarity and mutual aid.

AN ECOLOGICAL SOCIETY

Social ecology is an appeal not only for moral regeneration but also, and above all, for social reconstruction along ecological lines. It emphasizes that an ethical appeal to the powers that be (that embody blind market forces and competitive relationships), taken by itself, is likely to be futile. Indeed, taken by itself, it often obscures the real power relationships that prevail today by making the attainment of an ecological society seem merely a matter of "attitude," of "spiritual change," or of quasi-religious redemption.

Although always mindful of the need for spiritual change, social ecology seeks to redress the ecological abuses that society has inflicted on the natural world by going to the structural as well as the subjective sources of notions like the "domination of nature." That is, it challenges the entire system of domination itself and seeks to eliminate the hierarchical and class edifice that has imposed itself on humanity and defined the relationship between nonhuman and human nature. It ad-

luters. Advertising is equally self-serving 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 change is meaningless or unnecessary, but that modern capitalism is structurally amoral and hence impervious to any moral appeals. The modern marketplace has imperatives of its own, irrespective of who sits in the driver's seat or grabs on to its handlebars. The direction it follows depends not upon ethical factors but rather on the mindless "laws" of supply and demand, grow or die, eat or be eaten. Maxims like "business is business" explicitly tell us that ethical, religious, psychological, and emotional factors have absolutely no place in the impersonal world of production, profit, and growth. It is grossly misleading to think that we can divest this brutally materialistic, indeed, mechanistic, world of its objective character, that we can vaporize its hard facts rather than transform it.

A society based on "grow or die" as its all-pervasive imperative must necessarily have a devastating ecological impact. Given the growth imperative generated by market competition, it would mean little or nothing if the present-day population were reduced to a fraction of what it is today. Insofar as entrepreneurs must always expand if they are to survive, the media that have fostered mindless consumption would be mobilized to increase the purchase of goods, irrespective of the need for them. Hence it would become "indispensable" in the public mind to own two or three of every appliance, motor vehicle, electronic gadget, or the like, where one would more than suffice. In addition, the military would continue to demand new, more lethal instruments of death, of which new models would be required annually.

Nor would "softer" technologies produced by a grow-or-die market fail to be used for destructive capitalistic ends. Two centuries ago, the forests of England were hacked into fuel for iron forges with axes that had not changed appreciably since

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 idea, 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 that seeks to discover one within it. The spirituality advanced by social ecology is definitively naturalistic (as one would expect, given its relation to ecology itself, which stems from the biological sciences), rather than supernaturalistic or pantheistic.

To prioritize any form of spirituality over the social factors that actually erode all forms of spirituality, raises serious questions about one's 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 a hierarchical and class society has on the natural world. We must earnestly deal with the fact that economic growth, gender oppressions, and ethnic domination-not to speak of corporate, state, and bureaucratic interests-are much more capable of shaping the future of the natural world than are privatistic forms of spiritual self-regeneration. These forms of domination must be confronted by collective action and 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 rubric of "green capitalism." We live in a highly cooperative society that is only too eager to find new areas of commercial aggrandizement and to add ecological verbiage to its advertising and customer relations.

NATURE AND SOCIETY

Let us begin, then, with basics—namely, by asking what we mean by nature and society. Among the many definitions of nature that have been formulated over time, one is rather elusive and often difficult to grasp because it requires a certain way of thinking—one that stands at odds with what we popularly call "linear thinking." This form of "nonlinear" or organic thinking is developmental rather than analytical, or, in more technical terms, dialectical rather than instrumental. Nature, conceived in terms of developmental thinking, is more than the beautiful vistas we see from a mountaintop or in the images that are fixed on the backs of picture postcards. Such vistas and images of nonhuman nature are basically static and immobile. Our attention, to be sure, may be arrested by the soaring flight of a hawk, or the bolting leap of a deer, or the low-slung shadowy loping of a coyote. But what we are really witnessing in such cases are the mere kinetics of physical motion, caught in the frame of an essentially static image of the scene before our eyes. It deceives us into believing in the "eternality" of a single moment in nature.

If we look with some care into nonhuman nature as more than a scenic view, we begin to sense that it is basically an evolving 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. This encompasses the development from the inorganic into the organic, from the less differentiated and relatively limited world of unicellular organisms into that of multicellular ones equipped with simple, later complex, and presently 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.

the most driving imperative of the capitalist market, given the dehumanizing competition that defines it, is the need to grow, and to avoid dying at the hands of savage rivals. Important as greed or the power conferred by wealth may be, sheer survival requires that an entrepreneur must expand his or her productive apparatus to remain ahead of other entrepreneurs and try, in fact, to devour them. The key to this law of life-to survival-is expansion, and greater profit, to be invested in still further expansion. Indeed, the notion of progress, once identified by our ancestors as a faith in the evolution of greater human cooperation and care, is now identified with economic growth.

The effort by many well-intentioned ecology theorists and their admirers to reduce the ecological crisis to a cultural rather than a social problem can easily become obfuscatory. However ecologically concerned an entrepreneur may be, the harsh fact is that his or her very survival in the marketplace precludes a meaningful ecological orientation. To engage in ecologically sound practices places a morally concerned entrepreneur at a striking, and indeed, fatal disadvantage in a competitive relationship with a rival—notably one who lacks any ecological concerns and thus produces at lower costs and reaps higher profits for further capital expansion.

Indeed, to the extent that environmental movements and ideologies merely moralize about the "wickedness" of our anti-ecological society, and emphasize change in personal life and attitudes, they obscure the need for social action. Corporations are skilled at manipulating this desire to be present as an ecological image. Mercedes-Benz, for example, declaims in a two-page ad, decorated with a bison painting from a Paleolithic cave wall, that "we must work to make more environmentally sustainable progress by including the theme of the environment in the planning of new products."⁴ Such deceptive messages are commonplace in Germany, one of western Europe's worst pol-

⁴ See *Der Spiegel* (Sept. 16, 1991), pp. 144-45.

tinents. Exchange ceased to be primarily a means to provide for modest needs, subverting the limits imposed upon it by guilds or by moral and religious restrictions. Not only did it place a high premium on techniques for increasing production; it also became the procreator of needs, many of which are simply useless, and gave an explosive impetus to consumption and technology. First in northern Italy and the European lowlands, later-and most effectively-in England during the seventeenth and eighteenth centuries, the production of goods exclusively for sale and profit (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 began to colonize the entire world, and finally, most aspects of personal life. Unlike the feudal nobility, which had its cherished lands and castles, the bourgeoisie had no home but the marketplace and its bank vaults. As a class, they turned more and more of the world into an ever-expanding domain of factories. Entrepreneurs of the ancient and medieval worlds had normally gathered their profits together to invest in land and live like country gentry-given the prejudices of their times against "ill-gotten" gains from trade. On the other hand, 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, and functioned as though growth were an end in itself.

It is crucially important, in social ecology, to recognize that industrial growth does not result from a change in a cultural outlook alone-and least of all, from the impact of scientific rationality on society. It stems 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,

This vast drama of nonhuman nature is in every respect stunningly wondrous. It is marked by increasing subjectivity and flexibility and by increasing differentiation that makes an organism more adaptable to new environmental challenges and opportunities and renders a living being more equipped to alter its environment to meet its own needs. 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. Or one may decide, quite matter-of-factly, that the "struggle for existence" or the "survival of the fittest" (to use popular Darwinian terms) explains why increasingly subjective and more flexible beings are capable of dealing with environmental changes more effectively than are less subjective and flexible beings. But the fact remains that the kind of evolutionary drama I have described did occur, and is carved in stone in the fossil record. That nature is this record, this history, this developmental or evolutionary process, is a very sobering fact.

Conceiving nonhuman nature as its own evolution rather than as a mere 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, strange "exotics," phylogenetic "deformities" that, owing to their tool-making capacities, "cannot evolve with an ecosystem anywhere."² Nor are they "intelligent fleas," to use the language of Gaian theorists who believe that the earth ("Gaia") is one living organism. These untenable disjunctions between humanity and the evolutionary process are as superficial as they are potentially misanthropic. Humans

² Neil Evernden, *The Natural Alien* (Toronto: University of Toronto Press, 1986), p. 109.

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 oral or 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 a highly anthropomorphic version of the planet (Gaia) the way fleas parasitize dogs and cats, is bad thinking, not only bad ecology. Lacking any sense of process, this kind of thinking-regrettably so commonplace among ethicists-radically bifurcates the nonhuman from the human. Indeed, to the degree that nonhuman nature is romanticized as "wilderness," and seen presumably as more authentically "natural" than the works of humans, the natural world is frozen into 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, of highly symbolic forms of communication, of esthetic sensibilities, the creation of towns and cities-all would be impossible without the large array of physical attributes that have been eons in the making, be they large brains or the bipedal motion that frees their hands for tool making and carrying food. In many respects, human traits are enlargements of non-human 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. The difference be-

overlook the fact that the destiny of human life goes hand-in-hand with the destiny of the nonhuman world.

But the customs of the irreducible minimum, usufruct, and mutual aid cannot be ignored, however troubling the ills produced by second nature may seem. These customs persisted well into history and surfaced almost explosively in massive popular uprisings, from early revolts in ancient Sumner to the present time. Many of those demanded the recovery of caring and communitarian values when these were under the onslaught of elitist and class oppression. Indeed, despite the armies that roamed the landscape of warring areas, the taxgatherers who plundered ordinary village peoples, and the daily abuses that were inflicted by overseers on 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 guilds. In ancient Greece, religions based on austerity and, more significantly, a rational philosophy that rejected the encumbering of thought and political life by extravagant wants, tended to scale down needs and delimit human appetites for material goods. They served to slow the pace of technological innovation to a point where new means of production could be sensitively integrated into a balanced society. Medieval markets were 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 tend to acquire a momentum of their own and permeate much of society, so too the market began to acquire a life of its own and extended its reach beyond limited regions into the depths of vast con-

of a society without those class and hierarchical structures that make for rule and obedience in private as well as public life. That this new dispensation involves changes in attitudes and values should go without saying. But these attitudes and values remain vaporous if they are not given substance through objective institutions, the ways in which humans concretely interact with each other, and in the 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" ways of life.

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 that dates back some 7,000 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, albeit a more canny than a heroic one, who essentially dispatches the nature deities that the Hellenic world inherited from its less well-known precursors. That elitist societies devastated much of the Mediterranean basin as well as the hillsides of China provides ample evidence that hierarchical and class societies had begun a sweeping remaking and despoliation of the planet long before the emergence of modern science, "linear" rationality, and "industrial society," to cite causal factors that are invoked so freely in the modern ecology movement. Second nature, to be sure, did not create a Garden of Eden in steadily absorbing and inflicting harm on first nature. 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 wars, genocide, and acts of heartless oppression. Social ecology refuses to ignore the fact that the harm elitist society inflicted on the natural world was more than matched by the harm it inflicted on humanity; nor does it

tween the development of these traits among nonhuman beings is that among humans they reach a degree of elaboration and integration that yields cultures or, viewed institutionally in terms of families, bands, tribes, hierarchies, economic classes, and the state, 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 is a shedding of instinctive behavioral traits, a continuing process 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." And far from being "unnatural," human second nature is eminently a creation of organic evolution's first nature. To write the second nature created by human beings out of nature as a whole, or indeed, to minimize it, is to ignore the creativity of natural evolution itself and to view it onesidedly. If "true" evolution embodies itself simply in creatures like grizzly bears, wolves, and whales—generally, animals that *people* find esthetically pleasing or relatively intelligent—then human beings are literally *de-natured*. In such views, whether seen as "aliens" or as "fleas," humans are essentially placed 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, thereby dealing with people as a "freaking," as Paul Shepard puts it, of the evolutionary process. Others simply avoid the problem of humanity's unique place in natural evolution by promiscuously putting human beings on a par with beetles in terms of their "intrinsic worth." In this "either/or" propositional thinking, the social is either separated from the organic, or flippantly reduced to 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 of "anthropocentricity," while the reductionist approach, with its almost meaningless notion of a "biocentric democracy," is saddled with the name of "biocentricity."

The bifurcation of the human from the nonhuman reveals a failure to think organically, and to approach evolutionary phenomena with an evolutionary way of thought. Needless to say, if we are content to regard nature as no more than a scenic vista, mere metaphoric and poetic description of it might suffice to replace systematic thinking about it. But if we regard nature as the history of nature, as an evolutionary process that is going on to one degree or another under our very eyes, we dishonor this process 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-it-is-not," that it is engaged in a continual self-organizing process in which past and present, seen as a richly differentiated but shared continuum, give rise to a new potentiality for a future, ever-richer degree of *wholeness*. Accordingly, the human and the nonhuman can be seen as aspects of an evolutionary continuum, and the emergence of the human can be located in the evolution of the nonhuman, without advancing naive claims that one is either "superior to" or "made for" the other.

By the same token, in a processual, organic, and dialectical way of thinking, we would have 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 a bookkeeper. One simply juxtaposes two columns-labeled "old paradigm" and "new paradigm"-as though one were dealing with debits and credits. Obviously distasteful terms like "centralization" are placed under "old paradigm," while more appealing ones like "decentralization"

THE IDEA OF DOMINATING NATURE

"Nature," in the broad sense of a biotic environment from which humans take the simple things they need for survival, often has no meaning to preliterate peoples. Immersed in nature as the very universe of their lives it has no special meaning, even when they celebrate animistic rituals and view the world around them as a nexus of life, often imputing their own social institutions to the behavior of various species, as in the case of "beaver lodges" and humanlike spirits. 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 human domination, however, the seeds are planted for a belief that nature not only exists as a world apart, but that it is hierarchically organized and can be dominated. The study of magic reveals this shift clearly. Early forms of magic did not view nature as a world apart. Its worldview tended to be such that a practitioner essentially pleaded with the "chief spirit" of the game to coax an animal in the direction of an arrow or a spear. Later, magic becomes almost entirely instrumental; the game is coerced by magical techniques to become the hunter's prey. While the earliest forms of magic may be regarded as the practices of a generally nonhierarchical and egalitarian community, the later forms of animistic beliefs betray a more or less hierarchical view of the natural world and of latent human powers of domination.

We must emphasize, here, that the idea of dominating nature has its primary source in the domination of human by human and the structuring of the natural world into a hierarchical Chain of Being (a static conception, incidentally, that has no relationship to the evolution of life into increasingly advanced forms of subjectivity and flexibility). The biblical injunction that gave to Adam and Noah command of the living world was above all an expression of a *social* dispensation. Its idea of dominating nature can be overcome only through the creation

many chiefs is earned, not by hoarding surpluses as a means to power but by disposing of them as evidence of generosity.

Classes tend to operate along different lines. 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 more entrenched than class can perhaps be verified by the fact that women have been dominated for millennia, despite sweeping changes in class societies. By the same token, the abolition of class rule and economic exploitation offers no guarantee whatever that elaborate hierarchies and systems of domination will disappear.

In nonhierarchical and even some hierarchical societies, certain customs guide human behavior along basically decent lines. Of primary importance in early customs was the "law of the irreducible minimum" (to use Radin's expression), the shared notion that all members of a 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 infirmities or even frivolous behavior would have been seen as a heinous denial of the very right to live. Nor were the resources and things needed to sustain the community ever completely 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 need be, by another. Thus unused land, orchards, and even tools and weapons, if left idle, were at the disposition of anyone in the community who needed them. Lastly, custom fostered the practice of mutual aid, the rather sensible cooperative behavior of sharing things and labor, so that an individual or family in fairly good circumstances could expect to be helped by others if their fortunes should change for the worse. Taken as a whole, these customs became so sedimented into society that they persisted long after hierarchy became oppressive and class society became predominant.

are regarded as "new paradigm." The result is an inventory of bumper-sticker slogans whose "bottom line" is patently a form of "absolute good versus absolute evil." All of this maybe deliciously synoptic and easy for the eyes, but it is singularly lacking as food for the brain. To truly know and be able to give interpretative *meaning* to the social issues so arranged, we should want to know how each idea derived from others and is part of an overall development. What, in fact, do we mean by the notion of "decentralization," and how does it derive from or give rise in the history of human society to "centralization"? Again: processual thinking is needed to deal with processual realities so that we can gain some sense of *direction*—practical as well as theoretical—in dealing with our ecological problems.

Social ecology seems to stand alone, at present, in calling for the use of organic, developmental, and derivative ways of thinking out problems that are basically organic and developmental in character. The very definition of the natural world as a development indicates the need for an organic way of thinking, as does the derivation of human from nonhuman nature—a derivation that has the most far-reaching consequences for an ecological ethics that can offer serious guidelines for the solution of our ecological problems.

Social ecology calls upon us to see that nature and society are interlinked by evolution into one nature that consists of two differentiations: first or biotic nature, and second or human nature. Human 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 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, creates as well as adapts to, the biophysical circumstances—or ecocommunity—in which it must live. On this very simple level, human beings are, in principle, doing nothing that differs

from the survival activities of nonhuman beings-be it building beaver dams or gopher holes.

But the environmental changes that human beings produce are significantly different from those produced by nonhuman beings. Humans act upon their environments with considerable technical foresight, however lacking that foresight may be in ecological respects. Their cultures are rich in knowledge, experience, cooperation, and conceptual intellectuality; however, they may be sharply divided against themselves at certain points of their development, through conflicts between groups, classes, nation states, and even city-states. Nonhuman beings generally live in ecological niches, their behavior guided primarily by instinctive drives and conditioned reflexes. Human societies are "bonded" together by institutions that change radically over centuries. Nonhuman communities are notable for their fixity in general terms or by clearly preset, often genetically imprinted, rhythms. Human communities are guided in part by ideological factors and are subject to changes conditioned by those factors.

Hence human beings, emerging from an organic evolutionary process, initiate, by the sheer force of their biology and survival needs, a social evolutionary development that profoundly 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 of their biological equipment. This equipment now makes it possible for them to engage 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, but that the social development by which they grade out of their biological development often becomes more problematical for themselves and non human life. How these problems emerge, the ideologies they produce, the extent to which they contribute to biotic

community's life is thereby diluted. Warrior societies and chiefs carry the momentum of male dominance to the level of a new material and cultural constellation. Male dominance becomes extremely active and ultimately yields a world that is managed by male elites who dominate not only women but also other men.

"Why" hierarchy emerges is transparent enough: the infirmities of age, increasing population, natural disasters, certain technological changes that privilege male activities of hunting and caring for animals over the horticultural functions of females, the growth of civil society, the spread of warfare. All serve to enhance the male's responsibilities at the expense of the female's. Marxist theorists tend to single out technological advances and the presumed material surpluses they produce to explain the emergence of elite strata-indeed, of exploiting ruling classes. However, this does not tell us why many societies whose environments were abundantly rich in food never produced such strata. That surpluses are necessary to support elites and classes is obvious, as Aristotle pointed out more than two millennia ago. But too many communities that had such resources at their disposal remained quite egalitarian and never "advanced" to hierarchical or class societies.

It is worth emphasizing that hierarchical domination, however coercive it may be, is not to be confused with class exploitation. Often the role of high-status individuals is very well-meaning, as in the case of commands given by caring parents to their children, of concerned husbands and wives to each other, or of elderly people to younger ones. In tribal societies, even where a considerable measure of authority accrues to a chief-and most chiefs are advisers rather than rulers-he usually must earn the esteem of the community by interacting with the people, and he can easily be ignored or removed from his position by them. Many chiefs earn their prestige, so essential to their authority, by disposing of gifts, and even by a considerable dis-accumulation of their personal goods. The respect accorded to

the rights of others or the welfare of the community."³ Many tribal councils throughout the world were really councils of elders, an institution that never completely disappeared (as the word "alderman" suggests), even though they were overlaid by warrior societies, chiefdoms, and kingships.

Patricentricity, in which male values, institutions, and forms of behavior prevail over female ones, seems to have followed gerontocracy. Initially, this shift may have been fairly harmless, inasmuch as preliterate and early aboriginal societies were largely domestic communities in which the authentic center of material life was the home, not the "men's house" so widely present in tribal societies. Male rule, if such it can be strictly called, takes on its most severe and 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 members of the group. Women are by no means the exclusive or even the principal target of the patriarch's domination. The sons, like the daughters, may be ordered how to behave and whom to marry and may be killed at the whim of the "old man." So far as patricentricity is concerned, however, the authority and prerogative of the male are the product of a slow, often subtly negotiated development in which the male fraternity tends to edge 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 begins to invade the horticultural sphere of woman, who had used the simple digging stick, and her earlier economic predominance in the com-

³ Paul Radin, *The World of Primitive Man* (New York: Grove Press, 1960), p. 211.

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, 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. It contains both the danger of tearing down the biosphere and, given a further development of humanity toward an ecological society, the capacity to provide an entirely new ecological dispensation.

SOCIAL HIERARCHY AND DOMINATION

How, then, did the social-eventually structured around status groups, class formations, and cultural phenomena "emerge from the biological? We have reason to speculate that as biological facts such as lineage, gender distribution, and age differences were slowly institutionalized, their uniquely social dimension was initially quite egalitarian. Later it 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 protracted maternal care of the infant tended to knit siblings together and produced a strong sense of solidarity and group inwardness. Men, women, and their children were brought into a condition of a fairly stable family life, based on mutual obligation and an expressed sense of affinity that was often sanctified by marital vows of one kind or another.

Outside the family and all its elaborations into bands, clans, tribes and the like, other human beings were regarded as

"strangers," who could alternatively be welcomed hospitably or enslaved or put to death. What mores existed were based on an unreflected body of *customs* that seemed to have been inherited from time immemorial. What we call *morality* began as the commandments of a deity, in that they required some kind of supernatural or mystical reinforcement to be accepted by the community. Only later, beginning with the ancient Greeks, did *ethical* behavior 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. Humanity, gradually disengaging itself from the biological facts of blood ties, began to admit the "stranger" and increasingly recognize itself as a shared community of human beings rather than an ethnic folk—a community of citizens rather than of kinsmen.

In the primordial and socially formative world that we must still explore, other of humanity's biological traits were to be reworked from the strictly natural to the social. One of these was the fact of age and its distinctions. In the emerging social groups that developed 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, the kinship lines that prescribed marital ties in obedience to extensive incest taboos, and techniques for survival that had to be acquired by both the young and the mature members of the group. In addition, the biological fact of gender distinctions were to be 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 peo-

ple existed in a complementary relationship with one another. Each, in effect, was needed by the other to form a relatively stable whole. No one "dominated" the others or tried to privilege itself in the normal course of things. Yet with the passing of time, even as the biological facts that underpin every human group were 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, a trend that often did not go beyond a very limited development among many preliterate or aboriginal cultures, and even in certain fairly elaborate civilizations. Nor can we foretell how human history might have developed had certain feminine values associated with care and nurture not been overshadowed by masculine values associated with combative and aggressive behavior.

Hierarchy in its earliest forms was probably not marked by the harsh qualities it has acquired over history. Elders, at the very beginnings of gerontocracy, were not only respected for their wisdom but often beloved of the young, and their affection was often reciprocated in kind. We can probably account for the increasing stridency and harshness of later gerontocracies by supposing that the elderly, burdened by their failing powers and dependent upon the community's goodwill, were more vulnerable to abandonment in periods of material want than any other part of the population. In any case, that gerontocracies were the earliest forms of hierarchy is corroborated by their existence in communities as far removed from each other as the Australian Aborigines, tribal societies in East Africa, and Indian communities in the Americas. "Even in simple food-gathering cultures, individuals above fifty, let us say, apparently arrogated to themselves certain powers and privileges which benefitted themselves specifically," observes anthropologist Paul Radin, "and were not necessarily, if at all, dictated by considerations either of