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Society and Ecology

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It is part of social ecology's commitment to natural evolution that these potentialities are indeed real and that they can be fulfilled. This commitment stands flatly at odds with a "scenic" image of nature as a static view to awe mountain men or a romantic view for conjuring up mystical images of a personified deity that is so much in vogue today. The splits between natural and social evolution, nonhuman and human life, an intractable "stingy" nature and a grasping, devouring humanity, have all been specious and misleading when they are seen as inevitabilities. No less specious and misleading have been reductionist attempts to absorb social into natural evolution, to collapse culture into nature in an orgy of irrationalism, theism, and mysticism, to equate the human with mere animality, or to impose a contrived "natural law" on an obedient human society.

Whatever has turned human beings into "aliens" in nature are social changes that have made many human beings "aliens" in their own social world. the domination of the young by the old, of women by men, and of men by men. Today, as for many centuries in the past, there are still oppressive human beings who literally own society and others who are owned by it. Until society can be reclaimed by an undivided humanity that will use its collective wisdom, cultural achievements, technological innovations, scientific knowledge, and innate creativity for its own benefit and for that of the natural world, all ecological problems will have their roots in social problems.

Adaptation, in effect, increasingly gives way to creativity and the seemingly ruthless action of natural law to greater freedom. What earlier generations called “blind nature to denote nature’s lack of any moral direction, turns into “free nature, a nature that slowly finds a voice and the means to relieve the needless tribulations of life for all species in a highly conscious humanity and an ecological society. The “Noah Principle” of preserving every existing life-form simply for its own sake — a principle advanced by the antihumanist, David Ehrenfeld — has little meaning without the presupposition, at the very least, of the existence of a “Noah” — that is, a conscious life-form called humanity that might well rescue life- forms that nature itself would extinguish in ice ages, land desiccation, or cosmic collisions with asteroids. Grizzly bears, wolves, pumas, and the like, are not safer from extinction because they are exclusively in the “caring” hands of a putative “Mother Nature.” If there is any truth to the theory that the great Mesozoic reptiles were extinguished by climatic changes that presumably followed the collision of an asteroid with the earth, the survival of existing mammals might well be just as precarious in the face of an equally meaningless natural catastrophe unless there is a conscious, ecologically oriented life-form that has the technological means to rescue them.

The issue, then, is not whether social evolution stands opposed to natural evolution. The issue is *how* social evolution can be situated *in* natural evolution and *why* it has been thrown — needlessly, as I will argue — against natural evolution to the detriment of life as a whole. The capacity to be rational and free does not assure us that this capacity will be realized. If social evolution is seen as the potentiality for expanding the horizon of natural evolution along unprecedented creative lines, and human beings are seen as the potentiality for nature to become self-conscious and free, the issue we face is *why* these potentialities have been warped and *how* they can be realized.

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folding, opens new directions for still further development along alternative lines of natural evolution. To the degree that animals become complex, self-aware, and increasingly intelligent, they begin to make those elementary choices that influence their own evolution. They are less and less the passive objects of “natural selection” and more and more the active subjects of their own development.

A brown hare that mutates into a white one and sees a snow-covered terrain in which to camouflage itself is *acting* on behalf of its own survival, not simply adapting in order to survive. It is not merely being “selected” by its environment; it is selecting its own environment and making a *choice* that expresses a small measure of subjectivity and judgement.

The greater the variety of habitats that emerge in the evolutionary process, the more a given life-form, particularly a neurologically complex one, is likely to play an active and judgemental role in preserving itself. To the extent that natural evolution follows this path of neurological development, it gives rise to life-forms that exercise an ever-wider latitude of choice and a nascent form of freedom in developing themselves.

Given this conception of nature as the cumulative history of more differentiated levels of material organization (especially of life-forms) and of increasing subjectivity, social ecology establishes a basis for a meaningful understanding of humanity and society's place in natural evolution. Natural history is not a “catch-as-catch-can” phenomenon. It is marked by tendency, by directions and, as far as human beings are concerned, by conscious purpose. Human beings and the social worlds they create can open a remarkably expansive horizon for development of the natural world—a horizon marked by consciousness, reflection, and an unprecedented freedom of choice and capacity for conscious creativity. The factors that reduce many life-forms to largely adaptive roles in changing environments are replaced by a capacity for consciously adapting environments to existing and new life-forms.

is a warm-blooded, excitingly versatile, and keenly intelligent life-form — not a cold-blooded, genetically programmed, and mindless insect — that expresses *nature's* greatest powers of creativity.

Life-forms that create and consciously alter their environment, hopefully in ways that make it more rational and ecological, represent a vast and indefinite extension of nature into fascinating, perhaps unbounded, lines of evolution which no branch of insects could ever achieve — notably the evolution of a fully *self-conscious* nature. If this be humanism — more precisely, ecological humanism, the current crop of antihumanists and misanthropes are welcome to make the most of it.

Nature, in turn, is not a scenic view we admire through a picture window — a view that is frozen into a landscape or a static panorama. Such landscape images of nature may be spiritually elevating but they are ecologically deceptive. Fixed in time and place, this imagery makes it easy for us to forget that nature is not a static vision of the natural world but the long, indeed cumulative, *history* of natural development. This history involves the evolution of the inorganic, as well as the organic, realms of phenomena. Wherever we stand in an open field, forest, or on a mountain top, our feet rest on ages of development, be they geological strata, fossils of long-extinct life-forms, the decaying remains of the newly dead, or the quiet stirring of newly emerging life. Nature is not a “person,” a “caring Mother,” or, in the crude materialist language of the last century, “matter and motion.” Nor is it a mere “process” that involves repetitive cycles like seasonal changes and the building-up and breaking-down process of metabolic activity — some process philosophies to the contrary notwithstanding. Rather, natural history is a *cumulative* evolution toward ever more varied, differentiated, and complex forms and relationships.

This *evolutionary* development of increasingly variegated entities, most notably, of life-forms, is also an evolutionary development which contains exciting, latent possibilities. With variety, differentiation, and complexity, nature, in the course of its own un-

The problems which many people face today in “defining” themselves, in knowing “who they are” — problems that feed a vast psychotherapy industry — are by no means personal ones. These problems exist not only for private individuals; they exist for modern society as a whole. Socially, we live in desperate uncertainty about how people relate to each other. We suffer not only as individuals from alienation and confusion over our identities and goals; our entire society, conceived as a single entity, seems unclear about its own nature and sense of direction. If earlier societies tried to foster a belief in the virtues of cooperation and caring, thereby giving an ethical meaning to social life, modern society fosters a belief in the virtues of competition and egotism, thereby divesting human association of all meaning — except, perhaps, as an instrument for gain and mindless consumption.

We tend to believe that men and women of earlier times were guided by firm beliefs and hopes — values that defined them as human beings and gave purpose to their social lives. We speak of the Middle Ages as an “Age of Faith” or the Enlightenment as an “Age of Reason.” Even the pre-World War II era and the years that followed it seem like an alluring time of innocence and hope, despite the Great Depression and the terrible conflicts that stained it. As an elderly character in a recent, rather sophisticated, espionage movie put it what he missed about his younger years during World War II were their “clarity” — a sense of purpose and idealism that guided his behaviour.

That “clarity,” today, is gone. It has been replaced by ambiguity. The certainty that technology and science would improve the human condition is mocked by the proliferation of nuclear weapons, by massive hunger in the Third World, and by poverty in the First World. The fervent belief that liberty would triumph over tyranny is belied by the growing centralization of states everywhere and by the disempowerment of people by bureaucracies, police forces, and sophisticated surveillance techniques — in our “democracies” no less than in visibly authoritarian countries. The hope that we would

form “one world,” a vast community of disparate ethnic groups that would share their resources to improve life everywhere, has been shattered by a rising tide of nationalism, racism, and an unfeeling parochialism that fosters indifference to the plight of millions.

We believe that our values are worse than those held by people of only two or three generations ago. The present generation seems more self-centred, privatized, and mean-spirited by comparison with earlier ones. It lacks the support systems provided by the extended family, community, and a commitment to mutual aid. The encounter of the individual with society seems to occur through cold bureaucratic agencies rather than warm, caring people.

This lack of social identity and meaning is all the more stark in the face of the mounting problems that confront us. War is a chronic condition of our time; economic uncertainty, an all-pervasive presence; human solidarity, a vaporous myth. Not least of the problems we encounter are nightmares of an ecological apocalypse — a catastrophic breakdown of the systems that maintain the stability of the planet. We live under the constant threat that the world of life will be irrevocably undermined by a society gone mad in its need to grow — replacing the organic by the inorganic, soil by concrete, forest by barren earth, and the diversity of life-forms by simplified ecosystems; in short, a turning back of the evolutionary clock to an earlier, more inorganic, mineralized world that was incapable of supporting complex life-forms of any kind, including the human species.

Ambiguity about our fate, meaning, and purpose thus raises a rather startling question: is society itself a curse, a blight on life generally? Are we any better for this new phenomenon called “civilization” that seems to be on the point of destroying the natural world produced over millions of years of organic evolution.

An entire literature has emerged which has gained the attention of millions of readers: a literature that fosters a new pessimism toward civilization as such. This literature pits technology against a presumably “virginal” organic nature; cities against countryside;

cruelty does not. Animal intention and will are too limited to produce an ethics of good and evil or kindness and cruelty. Evidence of inferential and conceptual thought is very limited among animals, except for primates, cetaceans, elephants, and possibly a few other mammals. Even among the most intelligent animals, the limits to thought are immense in comparison with the extraordinary capacities of socialized human beings. Admittedly, we are substantially less than human today in view of our still unknown potential to be creative, caring, and rational. Our prevailing society serves to inhibit, rather than realize, our human potential. We still lack the imagination to know how much our finest human traits could expand with an ethical, ecological, and rational dispensation of human affairs.

By contrast, the known nonhuman world seems to have reached visibly fixed limits in its capacity to survive environmental changes. If mere *adaptation* to environmental changes is seen as the criterion for evolutionary success (as many biologists believe), then insects would have to be placed on a higher plane of development than any mammalian life-form. However, they would be no more capable of making so lofty an intellectual evaluation of themselves than a “queen bee” would be even remotely aware of her “regal” status — a status, I may add, that only humans (who have suffered the social domination of stupid, inept, and cruel kings and queens) would be able to impute to a largely mindless insect.

None of these remarks are meant to metaphysically oppose nature to society or society to nature. On the contrary, they are meant to argue that what unites society with nature in a graded evolutionary continuum is the remarkable extent to which human beings, living in a rational, ecologically oriented society, could *embody* the *creativity* of nature — this, as distinguished from a purely *adaptive* criterion of evolutionary success. The great achievements of human thought, art, science, and technology serve not only to monumentalize culture, *they serve also to monumentalize natural evolution itself*. They provide heroic evidence that the human species

Greek term, initially used to denote different levels of deities and, later, clergy (characteristically, Hierapolis was an ancient Phrygian city in Asia Minor that was a centre for mother goddess worship), the word has been mindlessly expanded to encompass everything from beehive relationships to the erosive effects of running water in which a stream is seen to wear down and “dominate” its bedrock. Caring female elephants are called “matriarchs” and attentive male apes who exhibit a great deal of courage in defense of their community, while acquiring very few “privileges,” are often designated as “patriarchs.” The absence of an organized system of rule — so common in hierarchical human communities and subject to radical institutional changes, including popular revolutions — is largely ignored.

Again, the different functions that the presumed animal hierarchies are said to perform, that is, the asymmetrical causes that place one individual in an “alpha status” and others in a lesser one, is understated where it is noted at all. One might, with much the same aplomb, place all tall sequoias in a “superior” status over smaller ones, or, more annoyingly, regard them as an “elite” in a mixed forest “hierarchy” over “submissive” oaks, which, to complicate matters, are more advanced on the evolutionary scale. The tendency to mechanically project social categories onto the natural world is as preposterous as an attempt to project biological concepts onto geology. Minerals do not “reproduce” the way life-forms do. Stalagmites and stalactites in caves certainly do increase in size over time. But in no sense do they grow in a manner that even remotely corresponds to growth in living beings. To take superficial resemblances, often achieved in alien ways, and group them into shared identities, is like speaking of the “metabolism” of rocks and the “morality” of genes.

This raises the issue of repeated attempts to read ethical, as well as social, traits into a natural world that is only *potentially* ethical insofar as it forms a basis for an objective social ethics. Yes, coercion does exist in nature; so does pain and suffering. However,

countryside against “wilderness”; science against a “reverence” for life; reason against the “innocence” of intuition; and, indeed, humanity against the entire biosphere.

We show signs of losing faith in all our uniquely human abilities — our ability to live in peace with each other, our ability to care for our fellow beings and other life-forms. This pessimism is fed daily by sociobiologists who locate our failings in our genes, by antihumanists who deplore our “antinatural” sensibilities, and by “biocentrists” who downgrade our rational qualities with notions that we are no different in our “intrinsic worth” than ants. In short, we are witnessing a widespread assault against the ability of reason, science, and technology to improve the world for ourselves and life generally.

The historic theme that civilization must inevitably be pitted against nature, indeed, that it is corruptive of human nature, has surfaced in our midst from the days that reach back to Rousseau — this, precisely at a time when our need for a truly human and ecological civilization has never been greater if we are to rescue our planet and ourselves. Civilization, with its hallmarks of reason and technics, is viewed increasingly as a new blight. Even more basically, society as a phenomenon in its own right is being questioned so much so that its role as integral to the formation of humanity is seen as something harmfully “unnatural” and inherently destructive.

Humanity, in effect, is being defamed by human beings themselves, ironically, as an accursed form of life that all but destroys the world of life and threatens its integrity. To the confusion that we have about our own muddled time and our personal identities, we now have the added confusion that the human condition is seen as a form of chaos produced by our proclivity for wanton destruction and our ability to exercise this proclivity all the more effectively because we possess reason, science, and technology.

Admittedly, few antihumanists, “biocentrists,” and misanthropes, who theorize about the human condition, are prepared to follow

the logic of their premises to such an absurd point. What is vitally important about this medley of moods and unfinished ideas is that the various forms, institutions, and relationships that make up what we should call “society” are largely ignored. Instead, just as we use vague words like “humanity” or zoological terms like *homo sapiens* that conceal vast differences, often bitter antagonisms, that exist between privileged whites and people of colour, men and women, rich and poor, oppressor and oppressed; so do we, by the same token, use vague words like “society” or “civilization” that conceal vast differences between free, nonhierarchical, class, and stateless societies on the one hand, and others that are, in varying degrees, hierarchical, class-ridden, statist, and authoritarian. Zoology, in effect, replaces socially oriented ecology. Sweeping “natural laws” based on population swings among animals replace conflicting economic and social interests among people.

Simply to pit “society” against “nature,” “humanity” against the “biosphere,” and “reason,” “technology,” and “science” against less developed, often primitive forms of human interaction with the natural world, prevents us from examining the highly complex differences and divisions within society so necessary to define our problems and their solutions.

Ancient Egypt, for example, had a significantly different attitude toward nature than ancient Babylonia. Egypt assumed a reverential attitude toward a host of essentially animistic nature deities, many of which were physically part human and part animal, while Babylonians created a pantheon of very human political deities. But Egypt was no less hierarchical than Babylonia in its treatment of people and was equally, if not more, oppressive in its view of human individuality. Certain hunting peoples may have been as destructive of wildlife, despite their strong animistic beliefs, as urban cultures which staked out an over-arching claim to reason. When these many differences are simply swallowed up together with a vast variety of social forms by a word called “society,” we do severe violence to thought and even simple intelligence. Society

the need to achieve nature’s “surrender” to a “conquering” active-aggressive humanity, antihumanist and mystical ecologists argue the case for achieving humanity’s passive-receptive “surrender” to an “all conquering” nature. However much the two views may differ in their verbiage and pieties, *domination* remains the underlying notion of both: a natural world conceived as a taskmaster — either to be controlled or obeyed.

Social ecology springs this trap dramatically by re-examining the entire concept of domination, be it in nature and society or in the form of “natural law” and “social law.” What we normally call domination in nature is a human projection of highly organized systems of *social* command and obedience onto highly idiosyncratic, individual, and asymmetrical forms of often mildly coercive behaviour in animal communities. Put simply, animals do not “dominate” each other in the same way that a human elite dominates, and often exploits, an oppressed social group. Nor do they “rule” through institutional forms of systematic violence as social elites do. Among apes, for example, there is little or no coercion, but only erratic forms of dominant behaviour. Gibbons and orangutans are notable for their peaceable behaviour toward members of their own kind. Gorillas are often equally pacific, although one can single out “high status,” mature, and physically strong males among “lower status,” younger and physically weaker ones. The “alpha males” celebrated among chimpanzees do not occupy very fixed “status” positions within what are fairly fluid groups. Any “status” that they do achieve may be due to very diverse causes.

One can merrily skip from one animal species to another, to be sure, falling back on very different, asymmetrical reasons for searching out “high” versus “low status” individuals. The procedure becomes rather silly, however, when words like “status” are used so flexibly that they are allowed to include mere differences in group behaviour and functions, rather than coercive actions.

The same is true for the word “hierarchy.” Both in its origins and its strict meaning, this term is highly social, not zoological. A

is most obvious in social theory. Nearly all of our contemporary social ideologies have placed the notion of human domination at the centre of their theorizing. It remains one of the most widely accepted notions, from classical times to the present, that human freedom from the “domination of man by nature” entails the domination of human by human as the earliest means of production and the use of human beings as instruments for harnessing the natural world. Hence, in order to harness the natural world, it has been argued for ages, it is necessary to harness human beings as well, in the form of slaves, serfs, and workers.

That this instrumental notion pervades the ideology of nearly all ruling elites and has provided both liberal and conservative movements with a justification for their accommodation to the status quo, requires little, if any, elaboration. The myth of a “stingy” nature has always been used to justify the “stinginess” of exploiters in their harsh treatment of the exploited — and it has provided the excuse for the political opportunism of liberal, as well as conservative, causes. To “work within the system” has always implied an acceptance of domination as a way of “organizing” social life and, in the best of cases, a way of freeing humans from their presumed domination by nature.

What is perhaps less known, however, is that Marx, too, justified the emergence of class society and the State as stepping stones toward the domination of nature and, presumably, the liberation of humanity. It was on the strength of this historical vision that Marx formulated his materialist conception of history and his belief in the need for class society as a stepping stone in the historic road to communism.

Ironically, much that now passes for antihumanistic, mystical ecology involves exactly the same kind of thinking — but in an inverted form. Like their instrumental opponents, these ecologists, too, assume that humanity is dominated by nature, be it in the form of “natural laws” or an ineffable “earth wisdom” that must guide human behaviour. But while their instrumental opponents argue

per se becomes something “unnatural.” “Reason,” “technology,” and “science” become things that are “destructive” without any regard to the social factors that condition their use. Human attempts to alter the environment are seen as threats — as though our “species” can do little or nothing to improve the planet for life generally.

Of course, we are not any less animals than other mammals, but we are more than herds that browse on the African plains. The way in which we are more — namely, the *kinds* of societies that we form and how we are divided against each other into hierarchies and classes — profoundly affects our behaviour and our effects on the natural world.

Finally, by so radically separating humanity and society from nature or naively reducing them to mere zoological entities, we can no longer see how human nature is *derived* from nonhuman nature and social evolution from natural evolution. Humanity becomes estranged or alienated not only from itself in our “age of alienation,” but from the natural world in which it has always been rooted as a complex and thinking life-force.

Accordingly, we are fed a steady diet of reproaches by liberal and misanthropic environmentalists alike about how “we” as a species are responsible for the breakdown of the environment. One does not have to go to enclaves of mystics and gurus in San Francisco to find this species-centred, asocial view of ecological problems and their sources. New York City will do just as well. I shall not easily forget an “environmental” presentation staged by the New York Museum of Natural History in the seventies in which the public was exposed to a long series of exhibits, each depicting examples of pollution and ecological disruption. The exhibit which closed the presentation carried a startling sign, “The Most Dangerous Animal on Earth,” and it consisted simply of a huge mirror which reflected back the human viewer who stood before it. I clearly recall a black child standing before the mirror while a white school teacher tried to explain the message which this arrogant exhibit tried to convey. There were no exhibits of corporate boards or directors

planning to deforest a mountainside or government officials acting in collusion with them. The exhibit primarily conveyed one, basically misanthropic, message: people *as such*, not a rapacious society and its wealthy beneficiaries, are responsible for environmental dislocations — the poor no less than the personally wealthy, people of colour no less than privileged whites, women no less than men, the oppressed no less than the oppressor. A mythical human “species” had replaced classes; individuals had replaced hierarchies; personal tastes (many of which are shaped by a predatory media) had replaced social relationships; and the disempowered who live meagre, isolated lives had replaced giant corporations, self-serving bureaucracies, and the violent paraphernalia of the State.

The relationship of society to nature

Leaving aside such outrageous “environmental” exhibitions that mirror privileged and underprivileged people in the same frame, it seems appropriate at this point to raise a highly relevant need: the need to bring society back into the ecological picture. More than ever, strong emphases must be placed on the fact that nearly *all ecological problems are social problems*, not simply or primarily the result of religious, spiritual, or political ideologies. That these ideologies may foster an anti-ecological outlook in people of all strata hardly requires emphasis. But rather than simply take ideologies at their face value, it is crucial for us to ask from whence these ideologies developed.

Quite frequently, economic needs may compel people to act against their best impulses, even strongly felt natural values. Lumberjacks who are employed to clear-cut a magnificent forest normally have no “hatred” of trees. They have little or no choice but to cut trees just as stockyard workers have little or no choice but to slaughter domestic animals. Every community or occupation has its fair share of destructive and sadistic individuals, to be

Here, too, in the most intimate of our human attributes, we are no less products of natural evolution than we are of social evolution. As human beings we incorporate within ourselves aeons of organic differentiation and elaboration. Like all complex life-forms, we are not only part of natural evolution; we are also its heirs and the products of natural fecundity.

In trying to show how society slowly grows out of nature, however, social ecology is also obliged to show how society, too, undergoes differentiation and elaboration. In doing so, social ecology must examine those junctures in social evolution where splits occurred which slowly brought society into opposition to the natural world, and explain how this opposition emerged from its inception in prehistoric times to our own era. Indeed, if the human species is a life-form that can consciously and richly enhance the natural world, rather than simply damage it, it is important for social ecology to reveal the factors that have rendered many human beings into parasites on the world of life rather than active partners in organic evolution. This project must be undertaken not in a haphazard way, but with a serious attempt to render natural and social development coherent in terms of each other, and relevant to our times and the construction of an ecological society.

Perhaps one of social ecology’s most important contributions to the current ecological discussion is the view that the basic problems which pit society against nature emerge form *within* social development itself — not *between* society and nature. That is to say, the divisions between society and nature have their deepest roots in divisions within the social realm, namely, deep-seated conflicts between human and human that are often obscured by our broad use of the word “humanity”.

This crucial view cuts across the grain of nearly all current ecological thinking and even social theorizing. One of the most fixed notions that present-day ecological thinking shares with liberalism, Marxism, and conservatism is the historic belief that the “domination of nature” requires the domination of human by human. This

importance for the different ways society and nature have interacted over time and the problems these interactions have produced. How did a divisive, indeed, seemingly combative, relationship between humanity and nature emerge? What were the institutional forms and ideologies that rendered this conflict possible? Given the growth of human needs and technology, was such a conflict really unavoidable? And can it be overcome in a future, ecologically oriented society?

How does a rational, ecologically oriented society fit into the processes of natural evolution? Even more broadly, is there any reason to believe that the human mind — itself a product of natural evolution as well as culture — represents a decisive highpoint in natural development, notably, in the long development of subjectivity from the sensitivity and self-maintenance of the simplest life-forms to the remarkable intellectuality and self-consciousness of the most complex.

In asking these highly provocative questions, I am not trying to justify a strutting arrogance toward nonhuman life-forms. Clearly, we must bring humanity's uniqueness as a species, marked by rich conceptual, social, imaginative, and constructive attributes, into synchronicity with nature's fecundity, diversity, and creativity. I have argued that this synchronicity will not be achieved by opposing nature to society, nonhuman to human life-forms, natural fecundity to technology, or a natural subjectivity to the human mind. Indeed, an important result that emerges from a discussion of the interrelationship of nature to society is the fact that human intellectuality, although distinct, also has a far-reaching natural basis. Our brains and nervous systems did not suddenly spring into existence without a long antecedent natural history. That which we most prize as integral to our humanity — our extraordinary capacity to think on complex conceptual levels — can be traced back to the nerve network of primitive invertebrates, the ganglia of a mollusk, the spinal cord of a fish, the brain of an amphibian, and the cerebral cortex of a primate.

sure, including misanthropic environmentalists who would like to see humanity exterminated. But among the vast majority of people, this kind of work, including such onerous tasks as mining, are not freely chosen occupations. They stem from need and, above all, they are the product of social arrangements over which ordinary people have no control.

To understand present-day problems — ecological as well as economic and political — we must examine their social causes and remedy them through social methods. “Deep,” “spiritual,” and humanist, and misanthropic ecologies gravely mislead us when they refocus our attention on social symptoms rather than social causes. If our obligation is to look at changes in social relationships in order to understand our most significant ecological changes, these ecologies steer us away from society to “spiritual,” “cultural,” or vaguely defined “traditional” sources. The Bible did not create European antinaturalism; it served to justify an antinaturalism that already existed on the continent from pagan times, despite the animistic traits of pre-Christian religions. Christianity's antinaturalistic influence became especially marked with the emergence of capitalism. Society must not only be brought into the ecological picture to understand why people tend to choose competing sensibilities — some, strongly naturalistic; others, strongly antinaturalistic — but we must probe more deeply into society itself. We must search out the *relationship of society to nature*, the *reasons* why it can destroy the natural world, and, alternatively, the reasons why it has and still can *enhance, foster, and richly contribute* to natural evolution.

Insofar as we can speak of “society” in any abstract and general sense — and let us remember that every society is highly unique and different from others in the long perspective of history — we are obliged to examine what we can best call “socialization,” not merely “society.” Society is a given arrangement of relationships which we often take for granted and view in a very fixed way. To many people today, it would seem that a market society based on trade and competition has existed “forever,” although we may be

vaguely mindful that there were pre-market societies based on gifts and cooperation. Socialization, on the other hand, is a *process*, just as individual living is a process. Historically, the *process* of socializing people can be viewed as a sort of social infancy that involves a painful rearing of humanity to social maturity.

When we begin to consider socialization from an in-depth viewpoint, what strikes us is that society itself in its most primal form stems very much *from* nature. Every social evolution, in fact, is virtually an extension of natural evolution into a distinctly human realm. As the Roman orator and philosopher, Cicero, declared some two thousand years ago: "...by the use of our hands, we bring into being within the realm of Nature, a second nature for ourselves." Cicero's observation, to be sure, is very incomplete: the primeval, presumably untouched "realm of Nature" or "first nature," as it has been called, is reworked in whole or part into "second nature" not only by the "use of our hands." Thought, language, and complex, very important biological changes also play a crucial and, at times, a decisive role in developing a "second nature" within "first nature".

I use the term "reworking" advisedly to focus on the fact that "second nature" is not simply a phenomenon that develops outside of "first nature" — hence the special value that should be attached to Cicero's use of the expression "*within* the realm of Nature..." To emphasize that "second nature" or, more precisely, society (to use this word in its broadest possible sense) emerges from *within* primeval "first nature" is to re-establish the fact that social life always has a naturalistic dimension, however much society is pitted against nature in our thinking. *Social* ecology clearly expresses the fact that society is not a sudden "eruption" in the world. Social life does not necessarily face nature as a combatant in an unrelenting war. The emergence of society is a *natural* fact that has its origins in the biology of human socialization.

The human socialization process from which society emerges — be it in the form of families, bands, tribes, or more complex types of human intercourse — has its source in parental relationships,

annoying issues like war and social conflict are raised, they are ascribed to the activity of "genes" that presumably give rise to war and even "greed".

In either case, be it the notion of an abstract society that exists apart from nature or an equally abstract natural community that is indistinguishable from nature, a dualism appears that sharply separates society *from* nature, or a crude reductionism appears that dissolves society *into* nature. These apparently contrasting, but closely related, notions are all the more seductive because they are so simplistic. Although they are often presented by their more sophisticated supporters in a fairly nuanced form, such notions are easily reduced to bumper-sticker slogans that are frozen into hard, popular dogmas.

Social Ecology

The approach to society and nature advanced by social ecology may seem more intellectually demanding, but it avoids the simplicities of dualism and the crudities of reductionism. Social ecology tries to show how nature slowly *phases* into society without ignoring the differences between society and nature on the one hand, as well as the extent to which they merge with each other on the other. The everyday socialization of the young by the family is no less rooted in biology than the everyday care of the old by the medical establishment is rooted in the hard facts of society. By the same token, we never cease to be mammals who still have primal natural urges, but we institutionalize these urges and their satisfaction in a wide variety of social forms. Hence, the social and the natural continually permeate each other in the most ordinary activities of daily life without losing their identity in a shared process of interaction, indeed, of interactivity.

Obvious as this may seem at first in such day-to-day problems as caretaking, social ecology raises questions that have far-reaching

over the course of time. In effect, they form not only communities, but a new phenomenon called *societies*.

If we fail to distinguish animal communities from human societies, we risk the danger of ignoring the unique features that distinguish human social life from animal communities — notably, the ability of society to *change* for better or worse and the factors that produce these changes. By reducing a complex society to a mere community, we can easily ignore how societies differed from each other over the course of history. We can also fail to understand how they elaborated simple differences in status into firmly established hierarchies, or hierarchies into economic classes. Indeed, we risk the possibility of totally misunderstanding the very meaning of terms like “hierarchy” as highly organized systems of command and obedience — these, as distinguished from personal, individual, and often short-lived differences in status that may, in all too many cases, involve no acts of compulsion. We tend, in effect, to confuse the strictly institutional creations of human will, purpose, conflicting interests, and traditions, with community life in its most fixed forms, as though we were dealing with inherent, seemingly unalterable, features of society rather than fabricated structures that can be modified, improved, worsened — or simply abandoned. The trick of every ruling elite from the beginnings of history to modern times has been to identify its own socially created hierarchical systems of domination with community life *as such*, with the result being that human-made institutions acquire divine or biological sanctity.

A given society and its institutions thus tend to become reified into permanent and unchangeable entities that acquire a mysterious life of their own apart from nature — namely, the products of a seemingly fixed “human nature” that is the result of genetic programming at the very inception of social life. Alternatively, a given society and its institutions may be dissolved into nature as merely another form of animal community with its “alpha males,” “guardians,” “leaders,” and “horde”-like forms of existence. When

particularly mother and child bonding. The biological mother, to be sure, can be replaced in this process by many surrogates, including fathers, relatives, or, for that matter, all members of a community. It is when *social* parents and *social* siblings — that is, the human community that surrounds the young — begin to participate in a system of care, that is ordinarily undertaken by biological parents, that society begins to truly come into its own.

Society thereupon advances beyond a mere reproductive group toward institutionalized human relationships, and from a relatively formless animal community into a clearly structured social *order*. But at the very inception of society, it seems more than likely that human beings were socialized into “second nature” by means of deeply ingrained blood ties, specifically maternal ties. We shall see that in time the structures or institutions that mark the advance of humanity from a mere animal community into an authentic society began to undergo far-reaching changes and these changes become issues of paramount importance in social ecology. For better or worse, societies develop around status groups, hierarchies, classes, and state formations. But reproduction and family care remain the abiding biological bases for every form of social life as well as the originating factor in the socialization of the young and the formation of a society. As Robert Briffault observed in the early half of this century, the “one known factor which establishes a profound distinction between the constitution of the most rudimentary human group and all other animal groups [is the] association of mothers and offspring which is the sole form of true social solidarity among animals. Throughout the class of mammals, there is a continuous increase in the duration of that association, which is the consequence of the prolongation of the period of infantile dependence,” a prolongation which Briffault correlates with increases in the period of fetal gestation and advances in intelligence.

The biological dimension that Briffault adds to what we call society and socialization cannot be stressed too strongly. It is a decisive presence, not only in the origins of society over ages of animal evo-

lution, but in the daily recreation of society in our everyday lives. The appearance of a newly born infant and the highly extended care it receives for many years reminds us that it is not only a human being that is being reproduced, but society itself. By comparison with the young of other species, children develop slowly and over a long period of time. Living in close association with parents, siblings, kin groups, and an ever-widening community of people, they retain a plasticity of mind that makes for creative individuals and ever-formative social groups. Although nonhuman animals may approximate human forms of association in many ways, they do not create a “second nature” that embodies a cultural tradition, nor do they possess a complex language, elaborate conceptual powers, or an impressive capacity to restructure their environment purposefully according to their own needs.

A chimpanzee, for example, remains an infant for only three years and a juvenile for seven. By the age of ten, it is a full-grown adult. Children, by contrast, are regarded as infants for approximately six years and juveniles for fourteen. A chimpanzee, in short, grows mentally and physically in about half the time required by a human being, and its capacity to learn or, at least to think, is already fixed by comparison with a human being, whose mental abilities may expand for decades. By the same token, chimpanzee associations are often idiosyncratic and fairly limited. Human associations, on the other hand, are basically stable, highly institutionalized, and they are marked by a degree of solidarity, indeed, by a degree of creativity, that has no equal in nonhuman species as far as we know.

This prolonged degree of human mental plasticity, dependency, and social creativity yields two results that are of decisive importance. First, early human association must have fostered a strong predisposition for *interdependence* among members of a group — not the “rugged individualism” we associate with independence. The overwhelming mass of anthropological evidence suggests that participation, mutual aid, solidarity, and empathy were the social

virtues early human groups emphasized within their communities. The idea that people are dependent upon each other for the good life, indeed, for survival, followed from the prolonged dependence of the young upon adults. Independence, not to mention competition, would have seemed utterly alien, if not bizarre, to a creature reared over many years in a largely dependent condition. Care for others would have been seen as the perfectly natural outcome of a highly acculturated being that was, in turn, clearly in need of extended care. Our modern version of individualism, more precisely, of egotism, would have cut across the grain of early solidarity and mutual aid — traits, I may add without which such a physically fragile animal like a human being could hardly have survived as an adult, much less as a child.

Second, human interdependence must have assumed a highly structured form. There is no evidence that human beings normally relate to each other through the fairly loose systems of bonding we find among our closest primate cousins. That human social bonds can be dissolved or de-institutionalized in periods of radical change or cultural breakdown is too obvious to argue here. But during relatively stable conditions, human society was never the “horde” that anthropologists of the last century presupposed as a basis for rudimentary social life. On the contrary, the evidence we have at hand points to the fact that all humans, perhaps even our distant hominid ancestors, lived in some kind of structured family groups, and, later, in bands, tribes, villages, and other forms. In short, they bonded together (as they still do), not only emotionally and morally, but also structurally in contrived, clearly definable, and fairly permanent institutions.

Nonhuman animals may form loose communities and even take collective protective postures to defend their young from predators. But such communities can hardly be called structured, except in a broad, often ephemeral, sense. Humans, by contrast, create highly formal communities that tend to become increasingly structured