have coopted these allegiances is evidence not of their reactionary nature, but of the inability of centralistic forms of socialism, with their emphases on centralism and state controls, to address them in an authentically libertarian way. The success of regressive ideologies is often searing evidence of the failings that burden their self-styled “progressive” counterparts.

An ideological vacuum exists in modern society, and its crisis still persists. It will not be for want of solutions that this condition will remain, but rather for want of the willingness to see what has changed in recent decades that renders traditional “isms” obsolete. The answers are gestating in our body politic; what we lack are the obstetricians who can bring them to birth and the educators who can bring them to maturity.

What is Social Ecology?

We are clearly beleaguered by an ecological crisis of monumental proportions—a crisis that visibly stems from the ruthless exploitation and pollution of the planet. We rightly attribute the social sources of this crisis to a competitive marketplace spirit that reduces the entire world of life, including humanity, to merchandisable objects, to mere commodities with price tags that are to be sold for profit and economic expansion. The ideology of this spirit is expressed in the notorious marketplace maxim: “Grow or die!”—a maxim that identifies limitless growth with “progress” and the “mastery of nature” with “civilization.” The results of this tide of exploitation and pollution have been grim enough to yield serious forecasts of complete planetary breakdown, a degree of devastation of soil, forests, waterways, and atmosphere that has no precedent in the history of our species.

In this respect, our market-oriented society is unique in contrast with other societies in that it places no limits on growth and egotism. The antisocial principles that “rugged individualism” is the primary motive for social improvement and competition the engine for social progress stand...
sharply at odds with all past eras that valued selflessness as the authentic trait of human nobility and cooperation as the authentic evidence of social virtue, however much these prized attributes were honored in the breach. Our marketplace society has, in effect, made the worst features of earlier times into its more honored values and exhibited a degree of brutality in the global wars of this century that makes the cruelties of history seem mild by comparison.

In our discussions of modern ecological and social crises, we tend to ignore a more underlying mentality of domination that humans have used for centuries to justify the domination of each other and, by extension, of nature. I refer to an image of the natural world that sees nature itself as "blind," "mute," "cruel," "competitive," and "stingy," a seemingly demonic "realm of necessity" that opposes "man's" striving for freedom and self-realization. Here, "man" seems to confront a hostile "otherness" against which he must oppose his own powers of toil and guile. History is thus presented to us as a Promethean drama in which "man" heroically defies and willfully asserts himself against a brutally hostile and unyielding natural world. Progress is seen as the extrication of humanity from the muck of a mindless, unthinking, and brutish domain or what Jean Paul Sartre so contemptuously called the "slime of history," into the presumably clear light of reason and civilization.

This image of a demonic and hostile nature goes back to the Greek world and even earlier, to the Gilgamesh Epic of Sumerian society. But it reached its high point during the past two centuries, particularly in the Victorian Age, and persists in our thinking today. Ironically, the idea of a "blind," "mute," "cruel," "competitive," and "stingy" nature forms the basis for the very social sciences and humanities that profess to provide us with a civilized alternative to nature's "brutishness" and "law of claw and fang." Even as these disciplines stress the "unbridgeable gulf" between nature and society in the classical tradition of a dualism between the physical and the mental, economics literally defines itself as the study of "scarce resources" (read: "stingy nature") and "unlimited needs," essentially rearing itself on the interconnection between nature and humanity. By the same token, sociology sees itself as the analysis of "man's" ascent from "animality." Psychology, in turn, particularly in its Freudian form, is focused on the control of humanity's unruly "internal nature" through rationality and the imperatives imposed on it by "civilization"—with the hidden agenda of sublimating human powers in the project of controlling "external nature."

Many class theories of social development, particularly Marxian socialism, have been rooted in the belief that the "domination of man by man" emerges from the need to "dominate nature," presumably with the result that once nature is subjugated, humanity will be cleansed of the "slime of history" and enter into a new era of freedom. However warped these self-definitions of our major social and humanistic disciplines may be, they are still embedded in nature and humanity's relationships with the natural world, even as they try to bifurcate the two and impart a unique autonomy to cultural development and social evolution.

Taken as a whole, however, it is difficult to convey
the enormous amount of mischief this image of nature has done to our ways of thinking, not to speak of the ideological rationale it has provided for human domination. More so than any single notion in the history of religion and philosophy, the image of a "blind," "mute," "cruel," "competitive," and "stingy" nature has opened a wide, often unbridgeable chasm between the social world and the natural world, and in its more exotic ramifications, between mind and body, subject and object, reason and physicality, technology and "raw materials." Indeed, the whole gamut of dualisms that have fragmented not only the world of nature and society but the human psyche and its biological matrix.

From Plato's view of the body as a mere burden encasing an ethereal soul, to René Descartes' harsh split between the God-given rational and the purely mechanistic physical, we are the heirs of a historic dualism: between, firstly, a misconceived nature as the opponent of every human endeavor, whose "domination" must be lifted from the shoulders of humanity (even if human beings themselves are reduced to mere instruments of production to be ruthlessly exploited with a view toward their eventual liberation), and, secondly, a domineering humanity whose goal is to subjugate the natural world, including human nature itself. Nature, in effect, emerges as an affliction that must be removed by the technology and methods of domination that excuse human domination in the name of "human freedom."

This all-encompassing image of an intractable nature that must be tamed by a rational humanity has given us a domineering form of reason, science, and technology—a fragmentation of humanity into hierarchies, classes, state institutions, gender, and ethnic divisions. It has fostered nationalistic hatreds, imperialistic adventures, and a global philosophy of rule that identifies order with dominance and submission. In slowly corroding every familial, economic, aesthetic, ideological, and cultural tie that provided a sense of place and meaning for the individual in a vital human community, this antinaturalistic mentality has filled the awesome vacuum created by an utterly nihilistic and antisocial development with massive urban entities that are neither cities nor villages, with ubiquitous bureaucracies that impersonally manipulate the lives of faceless masses of atomized human beings, with giant corporate enterprises that spill beyond the boundaries of the world's richest nations to conglomerate on a global scale and determine the material life of the most remote hamlets on the planet, and finally, with highly centralized State institutions and military forces of unbridled power that threaten not only the freedom of the individual but the survival of the species.

The split that clerics and philosophers projected centuries ago in their visions of a soulless nature and a denatured soul has been realized in the form of a disastrous fragmentation of humanity and nature, indeed, in our time, of the human psyche itself. A direct line or logic of events flows almost unrelentingly from a warped image of the natural world to the warped contours of the social world, threatening to bury society in a "slime of history" that is not of nature's making but of man's—specifically, the early hierarchies from which
economic classes emerged; the systems of domination, initially of woman by man, that have yielded highly rationalized systems of exploitation; and the vast armies of warriors, priests, monarchs, and bureaucrats who emerged from the simple status groups of tribal society to become the institutionalized tyrants of a market society.

That this authentic jungle of "claw and fang" we call the "free market" is an extension of human competition into nature—an ideological, self-serving fiction that parades under such labels as social Darwinism and sociobiology—hardly requires emphasis any longer. Lions are turned into "Kings of the Beasts" only by human kings, be they imperial monarchs or corporate ones; ants belong to the "lowly" in nature only by virtue of ideologies spawned in temples, palaces, manors, and, in our own time, by subservient apologists of the powers that be. The reality, as we shall see, is different, but a nature conceived as "hierarchical," not to speak of the other "brutish" and very bourgeois traits imputed to it, merely reflects a human condition in which dominance and submission are ends in themselves, which has brought the very existence of our biosphere into question.

Far from being the mere "object" of culture (technology, science, and reason), nature is always with us: as the parody of our self-image, as the cornerstone of the very disciplines which deny it a place in our social and self-formation, even in the protracted infancy of our young which renders the mind open to cultural development and creates those extended parental and sibling ties from which an organized society emerged.

And nature is always with us as the conscience of the transgressions we have visited on the planet—and the terrifying revenge that awaits us for our violation of the ecological balance.

What distinguishes social ecology is that it negates the harsh image we have traditionally created of the natural world and its evolution. And it does so not by dissolving the social into the natural, like sociobiology, or by imparting mystical properties to nature that place it beyond the reach of human comprehension and rational insight. Indeed, as we shall see, social ecology places the human mind, like humanity itself, within a natural context and explores it in terms of its own natural history, so that the sharp cleavages between thought and nature, subject and object, mind and body, and the social and natural are overcome, and the traditional dualisms of western culture are transcended by an evolutionary interpretation of consciousness with its rich wealth of gradations over the course of natural history.

Social ecology "radicalizes" nature, or more precisely, our understanding of natural phenomena, by questioning the prevailing marketplace image of nature from an ecological standpoint: nature as a constellation of communities that are neither "blind" nor "mute," "cruel" nor "competitive," "stingy" nor "necessitarian" but, freed of all anthropocentric moral trappings, a participatory realm of interactive life-forms whose most outstanding attributes are fecundity, creativity, and directiveness, marked by complementarity that renders the natural world the grounding for an ethics of freedom rather than domination.
Seen from an ecological standpoint, life-forms are related in an ecosystem not by the "rivalries" and "competitive" attributes imputed to them by Darwinian orthodoxy, but by the mutualistic attributes emphasized by a growing number of contemporary ecologists—an image pioneered by Peter Kropotkin. Indeed, social ecology challenges the very premises of "fitness" that enter into the Darwinian drama of evolutionary development with its fixation on "survival" rather than differentiation and fecundity. As William Trager has emphasized in his insightful work on symbiosis:

The conflict in nature between different kinds of organisms has been popularly expressed in phrases like the "struggle for existence" and the "survival of the fittest." Yet few people realized that mutual cooperation between organisms—symbiosis—is just as important, and that the "fittest" may be the one that helps another to survive.¹

It is tempting to go beyond this pithy and highly illuminating judgement to explore an ecological notion of natural evolution based on the development of ecosystems, not merely individual species. This is a concept of evolution as the dialectical development of ever-variegated, complex, and increasingly fecund contexts of plant-animal communities as distinguished from the traditional notion of biological evolution based on the atomistic development of single life-forms, a characteristically entrepreneurial concept of the isolated "individual," be it animal, plant, or bourgeois—a creature which tends for itself and either "survives" or "perishes" in a marketplace "jungle." As ecosystems become more complex and open a greater variety of evolutionary pathways, due to their own richness of diversity and increasingly flexible forms of organic life, it is not only the environment that "chooses" what "species" are "fit" to survive but species themselves, in mutualistic complexes as well as singly, that introduce a dim element of "choice"—by no means "intersubjective" or "willful" in the human meaning of these terms.

Concomitantly, these ensembles of species alter the environment of which they are part and exercise an increasingly active role in their own evolution. Life, in this ecological conception of evolution, ceases to be the passive tabula rasa on which eternal forces which we loosely call "the environment" inscribe the destiny of "a species," an atomistic term that is meaningless outside the context of an ecosystem within which a life-form is truly definable with respect to other species.*

Life is active, interactive, procreative, relational, and contextual. It is not a passive lump of "stuff," a form of metabolic "matter" that awaits the action of "forces" external to it and is mechanically "shaped" by them. Ever striving and always producing new life-forms, there is a sense in which life is self-directive in its own evolutionary development, not passively reactive to an inorganic or organic world that impinges upon it from outside and "determines"

*The traditional emphasis on an "active" environment that determines the "survival" of a passive species, altered in a cosmic game of chance by random mutations, is perhaps another reason why the term "environmentalism," as distinguished from social ecology, is a very unsatisfactory expression these days.
its destiny in isolation from the ecosystems which it constitutes and of which it is a part.

And this much is clear in social ecology: our studies of "food webs" (a not quite satisfactory term for describing the interactivity that occurs in an ecosystem or, more properly, an ecological community) demonstrate that the complexity of biotic interrelationships, their diversity and intricacy, is a crucial factor in assessing an ecosystem's stability. In contrast to biotically complex temperate zones, relatively simple desert and arctic ecosystems are very fragile and break down easily with the loss or numerical decline of only a few species. The thrust of biotic evolution over great eras of organic evolution has been toward the increasing diversification of species and their interlocking into highly complex, basically mutualistic relationships, without which the widespread colonization of the planet by life would have been impossible.

Unity in diversity (a concept deeply rooted in the western philosophical tradition) is not only the determinant of an ecosystem's stability; it is the source of an ecosystem's fecundity, of its innovativeness, of its evolutionary potential to create newer, still more complex life-forms and biotic interrelationships, even in the most inhospitable areas of the planet. Ecologists have not sufficiently stressed the fact that a multiplicity of life-forms and organic interrelationships in a biotic community opens new evolutionary pathways of development, a greater variety of evolutionary interactions, variations, and degrees of flexibility in the capacity to evolve, and is hence crucial not only in the community's stability but also in its innovativeness in the natural history of life.

The ecological principle of unity in diversity grades into a richly mediated social principle, hence my use of the term social ecology.* Society, in turn, attains its "truth," its self-actualization, in the form of richly articulated, mutualistic networks of people based on community, roundedness of personality, diversity of stimuli and activities, an increasing wealth of experience, and a variety of tasks. Is this grading of ecosystem diversity into social diversity, based on humanly scaled, decentralized communities, merely analogic reasoning?

My answer would be that it is not a superficial analogy but a deep-seated continuity between nature and society that social ecology recovers from traditional nature philosophy without its archaic dross of cosmic hierarchies, static absolutes, and

*My use of the word "social" cannot be emphasized too strongly. Words like "human," "deep," and "cultural," while very valuable as general terms, do not explicitly pinpoint the extent to which our image of nature is formed by the kind of society in which we live and by the abiding natural basis of all social life. The evolution of society out of nature and the ongoing interaction between the two tend to be lost in words that do not tell us enough about the vital association between nature and society and about the importance of defining such disciplines as economics, psychology, and sociology in natural as well as social terms. Recent uses of "social ecology" to advance a rather superficial account of social life in fairly conventional ecological terms are particularly deplorable. Books like Habits of the Heart which glibly pick up the term serve to coopt a powerful expression for rather banal ends and tend to compromise efforts to deepen our understanding of nature and society as interactive rather than opposed domains.
cycles. In the case of social ecology, it is not in the particulars of differentiation that plant-animal communities are ecologically united with human communities; rather, it is the logic of differentiation that makes it possible to relate the mediations of nature and society into a continuum.

What makes unity in diversity in nature more than a suggestive ecological metaphor for unity in diversity in society is the underlying fact of wholeness. By wholeness I do not mean any finality of closure in a development, any “totality” that leads to a terminal “reconciliation” of all “Being” in a complete identity of subject and object or a reality in which no further development is possible or meaningful. Rather, I mean varying degrees of the actualization of potentialities, the organic unfolding of the wealth of particularities that are latent in the as-yet-undeveloped potentiality. This potentiality can be a newly planted seed, a newly born infant, a newly formed community, a newly emerging society—yet, given their radically different specificity, they are all united by a processual reality, a newly emerging society—a shared “metabolism” of development, a unified catalysis of growth as distinguished from mere “change” that provides us with the most insightful way of understanding them we can possibly achieve. Wholeness is literally the unity that finally gives order to the particularity of each of these phenomena: it is what has emerged from the process, what integrates the particularities into a unified form, what renders the unity an operable reality and a “being” in the literal sense of the term—an order as the actualized unity of its diversity from the flowing and emergent process that yields its self-realization, the fixing of its directiveness into a clearly contoured form, and the creation in a dim sense of a “self” that is identifiable with respect to the “others” with which it interacts. Wholeness is the relative completion of a phenomenon’s potentiality, the fulfillment of latent possibility as such, all its concrete manifestations aside, to become more than the realm of mere possibility and attain the “truth” or fulfilled reality of possibility. To think this way—in terms of potentiality, process, mediation, and wholeness—is to reach into the most underlying nature of things, just as to know the biography of a human being and the history of a society is to know them in their authentic reality and depth.

The natural world is no less encompassed by this processual dialectic and developmental ecology than the social, although in ways that do not involve will, degrees of choice, values, ethical goals, and the like. Life itself, as distinguished from the nonliving, however, emerges from the inorganic latent with all the potentialities and particularities it has immanently produced from the logic of its own nascent forms of self-organization. Obviously, so does society as distinguished from biology, humanity as distinguished from animality, and individuality as distinguished from humanity in the generic sense of the word. But these distinctions are not absolutes. They are the unique and closely interrelated phases of a shared continuum, of a process that is united precisely by its own differentiations just as the phases through which an embryo develops are both distinct...
from and incorporated into its complete gestation and its organic specificity.

This continuum is not simply a philosophical construct. It is an earthy anthropological fact which lives with us daily as surely as it explains the emergence of humanity out of mere animality. Individual socialization is the highly nuanced “biography” of that development in everyday life and in everyone as surely as the anthropological socialization of our species is part of its history. I refer to the biological basis of all human socialization: the protracted infancy of the human child that renders its cultural development possible, in contrast to the rapid growth of nonhuman animals, a rate of growth that quickly forecloses their ability to form a culture and develop sibling affinities of a lasting nature; the instinctual maternal drives that extend feelings of care, sharing, intimate consociation, and finally love and a sense of responsibility for one’s own kin into the institutional forms we call “society”; and the sexual division of labor, age-ranking, and kin-relationships which, however culturally conditioned and even mythic in some cases, formed and still inform so much of social institutionalization today. These formative elements of society rest on biological facts and, placed in the contextual analysis I have argued for, require ecological analysis.

In emphasizing the nature-society continuum with all its gradations and “mediations,” I do not wish to leave the impression that the known ways and forms in which society emerged from nature and still embodies the natural world in a shared process of cumulative growth follow a logic that is “inexorable” or “preordained” by a telos that mystically guides the unfolding by a supranatural and supersocial process. Potentiality is not necessity; the logic of a process is not a form of inexorable “law”; the truth of a development is what is implicit in any unfolding and defined by the extent to which it achieves stability, variety, fecundity, and enlarges the “realm of freedom,” however dimly freedom is conceived.

No specific “stage” of a process necessarily yields a still later one or is “presupposed” by it—but certain obvious conditions, however varied, blurred, or even idiosyncratic, form the determining ground for still other conditions that can be expected to emerge. Freedom and, ultimately, a degree of subjectivity that make choice and will possible along rational lines may be desiderata that the natural world renders possible and in a “self”-directive way plays an active role in achieving. But in no sense are these desiderata predetermined certainties that must unfold, nor is any such unfolding spared the very real possibility that it will become entirely regressive or remain unfulfilled and incomplete. That the potentiality for freedom and consciousness exists in nature and society; that nature and society are not merely “passive” in a development toward freedom and consciousness, a passivity that would make the very notion of potentiality mystical just as the notion of “necessity” would make it meaningless by definition; that natural and social history bear existential witness to the potentiality and processes that form subjectivity and bring consciousness more visibly on the horizon in the very natural history of mind—all constitute no guarantee that these latent desiderata
are certainties or lend themselves to systematic elucidation and teleological explanations in any traditional philosophical sense.

Our survey of organic and social experience may stir us to interpret a development we know to have occurred as reason to presuppose that potentiality, wholeness, and graded evolution are realities after all, no less real than our own existence and personal histories, but presuppositions they remain. Indeed, no outlook in philosophy can ever exist that is free of presuppositions, any more than speculation can exist that is free of some stimulus by the objective world. The only truth about “first philosophy,” from Greek times onward, is that what is “first” in any philosophical outlook are the presuppositions it adopts, the background of unformulated experience from which these presuppositions emerge, and the intuition of a coherence that must be validated by reality as well as speculative reason.

One of the most provocative of the graded continuities between nature and society is the nonhierarchical relationships that exist in an ecosystem, and the extent to which they provide a grounding for a nonhierarchical society.* It is meaningless to speak of hierarchy in an ecosystem and in the succession of ecosystems which, in contrast to a monadic species-oriented development, form the true story of natural evolution. There is no “king of the beasts” and no “lowly serf”—presumably, the lion and the ant—in ecosystem relationships. Such terms, including words like “cruel nature,” “fallen nature,” “domineering nature,” and even “mutualistic nature” (I prefer to use the word “complementary” here) are projections of our own social relationships into the natural world. Ants are as important as lions and eagles in ecosystems; indeed, their recycling of organic materials gives them a considerable “eminence” in the maintenance of the stability and integrity of an area.

As to accounts of “dominance-submission” relationships between individuals such as “alpha” and “beta” males, utterly asymmetrical relationships tend to be grouped under words like “hierarchy” that are more analogic, often more metaphoric, than real. It becomes absurd, I think, to say that the “dominance” of a “queen bee,” who in no way knows that she is a “queen” and whose sole function in a beehive is reproductive, is in any way equatable with an “alpha” male baboon, whose “status” tends to suffer grave diminution when the baboon troop moves from the plains to the forest. By the same token, it is absurd to equate “patriarchal harems” among red deer with “matriarchal” elephant herds.

Sartre’s “slime of history” notion of the natural world that not only separates society from nature but mind from body and subjectivity from objectivity.

*Claims of hierarchy as a ubiquitous natural fact cannot be ignored by still further widening the chasm between nature and society—or “natural necessity” and “cultural freedom” as it is more elegantly worded. Justifying social hierarchy in terms of natural hierarchy is one of the most persistent assaults on an egalitarian social future that religion and philosophy have made over the ages. It has surfaced recently in sociobiology and reinforced the antinaturalistic stance that permeates so many liberatory ideologies in the modern era. To say that culture is precisely the “emancipation of man from nature” is to revert to
which simply expel bulls when they reach puberty and in no sense "dominate" them. One could go through a whole range of asymmetrical relationships to show that, even among our closest primate relatives, which include the utterly "pacifist" orangutans as well as the seemingly "aggressive" chimpanzees, words like "dominance" and "submission" mean very different relationships depending upon the species one singles out and the circumstances under which they live.

I cannot emphasize too strongly that hierarchy in society is an institutional phenomenon, not a biological one. It is a product of organized, carefully crafted power relationships, not a product of the "morality of the gene," to use E. O. Wilson's particularly obtuse phrase in his Sociobiology. Only institutions, formed by long periods of human history and sustained by well-organized bureaucracies and military forces, could have placed absolute rule in the hands of mental defects like Nicholas II of Russia and Louis XVI of France. We can find nothing even remotely comparable to such institutionalized systems of command and obedience in other species, much less in ecosystems. It verges on the absurd to draw fast-and-loose comparisons between the "division of labor" (another anthropocentric phrase when placed in an ecological context) in a beehive, whose main function is reproducing bees, not making honey for breakfast tables, and human society, with its highly contrived State forms and organized bureaucracies.

What renders social ecology so important in comparing ecosystems to societies is that it decisively challenges the very function of hierarchy as a way of ordering reality, of dealing with differentiation and variation—with "otherness" as such. Social ecology ruptures the association of order with hierarchy. It poses the question of whether we can experience the "other," not hierarchically on a "scale of one to ten" with a continual emphasis on "inferior" and "superior," but ecologically, as variety that enhances the unity of phenomena, enriches wholeness, and more closely resembles a food-web than a pyramid.

That hierarchy exists today as an even more fundamental problem than social classes, that domination exists today as an even more fundamental problem than economic exploitation, can be attested to by every conscious feminist, who can justly claim that long before man began to exploit man through the formation of social classes, he began to dominate woman in patriarchal and hierarchical relationships.

We would do well to remember that the abolition of classes, exploitation, and even the State is no guarantee whatever that people will cease to be ranked hierarchically and dominated according to age, gender, race, physical qualities, and often quite frivolous and irrational categories, unless liberation focuses as much on hierarchy and domination as it does on classes and exploitation. This is the point where socialism, in my view, must extend itself into a broader libertarian tradition that reaches back into the tribal or band-type communities ancestral to what we so smugly call "civilization," a tradition, indeed an abiding human impulse, that has surged to the surface of society in every revolutionary period, only to be brutally contained by those purely societal forms called "hierarchies."
Social ecology raises all of these issues in a fundamentally new light, and establishes entirely new ways of resolving them. I have tried to show that nature is always present in the human condition, and in the very ideological constructions that deny its presence in societal relationships. The notion of dominating nature literally defines all our social disciplines, including socialism and psychoanalysis. It is the apologia par excellence for the domination of human by human. Until that apologia is removed from our sensibilities in the rearing of the young, the first step in socialization as such, and replaced by an ecological sensibility that sees “otherness” in terms of complementarity rather than rivalry, we will never achieve human emancipation. Nature lives in us ontogenetically as different layers of experience which analytic rationalism often conceals from us: in the sensitivity of our cells, the remarkable autonomy of our organ systems, our so-called layered brain which experiences the world in different ways and attests to different worlds, which analytic reason, left to its own imperialistic claims, tends to close to us—indeed, in the natural history of the nervous system and mind, which bypasses the chasm between mind and body, or subjectivity and objectivity, with an organic continuum in which body grades into mind and objectivity into subjectivity. Herein lies the most compelling refutation of the traditional dualism in religion, philosophy, and sensibility that gave ideological credence to the myth of a “dominating” nature, borne by the suffering and brutalization of a dominated humanity.

Moreover, this natural history of the nervous system and mind is a cumulative one, not merely a successive one—a history whose past lies in our everyday present. It is not for nothing that one of America’s greatest physiologists, Walter B. Cannon, titled his great work on homeostasis The Wisdom of the Body. Running through our entire experiential apparatus and organizing experience for us are not only the categories of Kant’s first Critique and Hegel’s Logic, but also the natural history of sensibility as it exists in us hormonally, from our undifferentiated nerve networks to the hemispheres of our brains. We metabolize with nature in production in such a way that the materials with which we work and the tools we use to work on them enter reciprocally into the technological imagination we form and the social matrix in which our technologies exist. Nor can we ever permit ourselves to forget, all our overriding ideologies of class, economic interest, and the like notwithstanding, that we socialize with each other not only as producers and property owners, but also as children and parents, young and old, female and male, with our bodies as well as our minds, and according to graded and varied impulses that are as archaic as they are fairly recent in the natural evolution of sensibility.

Hence, to become conscious of this vast ensemble of natural history as it enters into our very beings, to see its place in the graded development of our social history, to recognize that we must develop new sensibilities, technologies, institutions, and forms of experiencing that give expression to this wealth of our inner development and the complexity of our biosocial apparatus is to go along with a deeper grain of evolution and dialectic than is afforded to us by the “epistemological” and “linguistic” turns of recent...
philosophy. On this score, just as I would argue that science is the history of science, not merely its latest "stage," and technology is the history of technology, not merely its latest designs, so reason is the history of reason, not merely its present analytic and communicative dimensions. Social history includes natural history as a graded dialectic that is united not only in a continuum by a shared logic of differentiation and complementarity; it includes natural history in the socialization process itself, in the natural as well as the social history of experience, in the imperatives of a harmonized relationship between humanity and nature that presuppose new ecotechnologies and ecocommunities, and in the desiderata opened by a decentralized society based on the values of complementarity and community.

The ideas I have advanced so far take their point of departure from a radically different image of nature than the prevailing western one, in which

philosophical dualism, economics, sociology, psychology, and even socialism have their roots. As a social ecologist, I see nature as essentially creative, directive, mutualistic, fecund, and marked by complementarity, not "mute," "blind," "cruel," "stingy," or "necessitarian." This shift in focus from a marketplace to an ecological image of nature obliges me to challenge the time-honored notion that the domination of human by human is necessary in order to "dominate nature." In emphasizing how meaningless this rationale for hierarchy and domination is, I conclude—with considerable historical justification, which our own era amply illuminates with its deployment of technology primarily for purposes of social control—that the idea of dominating nature stems from human domination, initially in hierarchical forms as feminists so clearly understand, and later in class and statist forms.

Accordingly, my ecological image of nature leads me to drastically redefine my conception of economics, sociology, psychology, and even socialism, which, ironically, advance a shared dualistic gospel of a radical separation of society from nature even as they rest on a militant imperative to "subdue" nature, be it as "scarce resources," the realm of "animality," "internal nature," or "external nature." Hence, I have tried to re-vision history not only as an account of power over human beings that by far outweighs any attempt to gain power over things, but also as power ramified into centralized states and urban environments, a technology, science, and rationality of social control, and a
message of "liberation" that conceals the most awesome features of domination, notably, the traditional socialist orthodoxies of the last century.

At the juncture where nature is conceived either as a ruthless, competitive marketplace or a creative, fecund biotic community, two radically divergent pathways of thought and sensibility emerge, following contrasting directions and conceptions of the human future. One ends in a totalitarian and antinaturalistic terminus for society: centralized, statist, technocratic, corporate, and sweepingly repressive. The other ends in a libertarian and ecological beginning for society: decentralized, stateless, artistic, collective, and sweepingly emancipatory. These are not tendentious words. It is by no means certain that western humanity, currently swept up in a counterrevolution of authoritarian values and adaptive impulses, would regard a libertarian vision as less pejorative than a totalitarian one. Whether or not my own words seem tendentious, the full logic of my view should be seen: the view we hold of the natural world profoundly shapes the image we develop of the social worlds, even as we assert the "supremacy" and "autonomy" of culture over nature.

In what sense does social ecology view nature as a grounding for an ethics of freedom? If the story of natural evolution is not understandable in Locke's atomistic account of a particular species' evolution, if that story is basically an account of ecosystem evolution toward ever more complex and flexible evolutionary pathways, then natural history itself cannot be seen simply as "necessitarian," "governed" by "inexorable laws" and imperatives. Every organism is in some sense "willful," insofar as it seeks to preserve itself, to maintain its identity, to resist a kind of biological entropy that threatens its integrity and complexity. However dimly, every organism transforms the essential attributes of self-maintenance that earn it the status of a distinct form of life into a capacity to choose alternatives that favor its survival and well-being—not merely to react to stimuli as a purely physico-chemical ensemble.

This dim, germinal freedom is heightened by the growing wealth of ecological complexity that confronts evolving life in synchronicity with evolving ecosystems. The elaboration of possibilities that comes with the elaboration of diversity and the growing multitude of alternatives confronting species development opens newer and more fecund pathways for organic development. Life is not passive in the face of these possibilities for its evolution. It drives toward them actively in a shared process of mutual stimulation between organisms and their environment (including the living and non-living environment they create) as surely as it also actively creates and colonizes the niches that cradle a vast diversity of life-forms in our richly elaborated biosphere. This image of active, indeed striving, life requires no Hegelian "Spirit" or Heraklitean Logos to explain it. Activity and striving are presupposed in our very definition of metabolism. In fact, metabolic activity is coextensive with the notion of activity as such and imparts an identity, indeed, a rudimentary "self," to every organism. Diversity and complexity, indeed, the notion of evolution as a diversifying history, superadd the dimension of variegated alternatives and pathways to the simple
fact of choice—and, with choice, the rudimentary fact of freedom. For freedom, in its most germinal form, is also a function of diversity and complexity, of a “realm of necessity” that is diminished by a growing and expanding multitude of alternatives, of a widening horizon of evolutionary possibilities, which life in its ever richer forms both creates and in its own way “pursues,” until consciousness, the gift of nature as well as society to humanity, renders this pursuit willful, self-reflexive, and consciously creative.

Here, in this ecological concept of natural evolution, lies a hidden message of freedom based on the “inwardness of life,” to use Hans Jonas’s excellent expression, and the ever greater diversification produced by natural evolution. Ecology is united with society in new terms that reveal moral tension in natural history, just as Marx’s simplistic image of the “savage” who “wrestles with nature” reveals a moral tension in social history. We must beware of being prejudiced by our own fear of prejudice. Organismic philosophies can surely yield totalitarian, hierarchical, and eco-fascistic results. We have good reason to be concerned over so-called nature philosophies that give us the notion of Blut und Boden and “dialectical materialism,” which provide the ideological justification for the horrors of Nazism and Stalinism. We have good reason to be concerned over a mysticism that yields social quietism at best and the aggressive activism of reborn Christianity and certain Asian gurus at worst. We have even better reason to be concerned over the eco-fascism of Garrett Hardin’s “lifeboat ethic” with its emphasis on scarce resources and the so-called tragedy of the commons, an ethic which services genocidal theories of imperialism and a global disregard for human misery. So, too, sociobiology, which roots all the savage features of “civilization” in our genetic constitution. Social ecology offers the coordinates for an entirely different pathway in exploring our relationship to the natural world—one that accepts neither genetic and scientistic theories of “natural necessity” at one extreme, nor a romantic and mystical zealotry that reduces the rich variety of reality and evolution to a cosmic “oneness” and energetics at the other extreme. For in both cases, it is not only our vision of the world and the unity of nature and society that suffers, but the “natural history” of freedom and the basis for an objective ethics of liberation as well.

We cannot avoid the use of conventional reason, present-day modes of science, and modern technology. They, too, have their place in the future of humanity and humanity’s metabolism with the natural world. But we can establish new contexts in which these modes of rationality, science, and technology have their proper place—an ecological context that does not deny other, more qualitative modes of knowing and producing which are participatory and emancipatory. We can also foster a new sensibility toward otherness that, in a nonhierarchical society, is based on complementarity rather than rivalry, and new communities that, scaled to human dimensions, are tailored to the ecosystem in which they are located and open a new, decentralized, self-managed public
realm for new forms of selfhood as well as directly
democratic forms of social management.

November 12, 1984

Market Economy or
Moral Economy?

Sooner or later, every movement for basic social change must come to grips with the way people produce the material means of life—their food, shelter, and clothing—and the way these means of life are distributed. To be discreetly reticent about the material sphere of human existence, to loftily dismiss this sphere as “materialistic,” is to be grossly insensitive to the preconditions for life itself. Everything we eat to sustain our animal metabolism, every dwelling or garment we use to shelter us from the inclemencies of nature, are normally provided by individuals like ourselves who must work to provision us, as we, one hopes, are obliged to provision them.

Although economists have blanketed this vast activity with amoral, often pretentiously “scientific” categories, preindustrial humanity always saw production and distribution in profoundly moral terms. The cry for “economic justice” is as old as the existence of economic exploitation. Only in recent times has this cry lost its high standing in our notion of ethics, or, more precisely, been subordinated to a trivial place by a supraeconomic emphasis on “spirituality” as distinguished from “materiality.”