

adapted to the most complex conditions of life, and should plainly bear the stamp of a far higher workmanship?" (p. 66). These remarks do not make Darwin an ecologist but are marvelous asides to a thesis that emphasizes variation, selection, fitness, and above all struggle. Yet one cannot help but be entranced by a moral sensibility that would have been magnificently responsive to the message of modern ecology and that deserves none of the onerous rubbish that has been imputed to the man because of social Darwinism.

5. See Murray Bookchin, *The Ecology of Freedom* (Palo Alto: Cheshire Books, 1982; Montreal: Black Rose Books, 1991), pp. 68-69.
6. An ecological approach can spare us some of the worst absurdities of sociobiology and biological reductionism. The popular notion that our deep-seated "reptilian" brain is responsible for our aggressive, "brutish," and cruel behavioral traits may make for good television dramas like *Cosmos*, but it is ridiculous science. Like all the great animal groups, most Mesozoic reptiles were almost certainly gentle herbivores, not carnivores—and those that were carnivores were probably neither more nor less aggressive, "brutish," or "cruel" than mammals. Our images of *Tyrannosaurus rex* (a creature whose generic name is sociological nonsense) may be inordinately frightening, but they grossly distort the reptilian life-forms on which the carnivore preyed. If anything, the majority of Mesozoic reptiles were probably very pacific and easily frightened, all the more because they were not particularly intelligent vertebrates. What remains unacknowledged in this imagery of fierce, fire-breathing, and "unfeelingly cruel" reptiles is the implicit assumption of different psychic sensibilities in reptiles and mammals, the latter presumably being more "sensitive" and "understanding" than the former. A psychic evolution in nonhuman beings thus goes together with the evolution of intelligence. Yet confronted with the unstated premises of such evolutionary trends, few scientists would find them comfortable.
7. This project is elaborated in considerable detail in my book *The Ecology of Freedom*.
8. Hence freedom is no longer resolvable into a strident nihilistic negativity or a trite instrumental positivity. Rather, in its open-endedness, it contains both and transcends them as a continuing process. Freedom thus resists precise definition just as it resists terminal finality. It is always becoming, hopefully surpassing what it was in the past and developing into what it can be in the future.

## THINKING ECOLOGICALLY *A Dialectical Approach*<sup>1</sup>

In a time of sweeping social breakdown and intellectual fragmentation, it is not surprising to find that patchwork eclecticism and ideological faddism are seriously corroding the very notion of coherent thinking. Although such ideological deterioration has occurred in earlier periods of social decay, one might have hoped that ecological thinking—with its emphasis on the organic, the holistic, and the developmental—would have provided an ideological terrain from which we could resist the general fragmentation of our times. Tragically, this hope has not been fulfilled. Many contemporary ecophilosophies, in fact, far from countering

the trend toward eclecticism and faddism, seem to be reinforcing it. Indeed, we are being overwhelmed by an effluvium of fads prefixed by *eco-* that pander to New Age pop styles. Too often, these "eco"-faddists either ignore muscularity of thought as too "heavy," or else they condemn it as intellectually "linear" and "divisive." As a result, a mentally lazy readership is emerging that is startled by serious thought that is in any way demanding—and even "turned off" by it (to use "counterculture" jargon).

More specifically, Taoist moods, Buddhist homilies, and New Age platitudes seem to be replacing even genuine thinking, let alone the possibility of organic reasoning that social ecology raised a decade or so ago. As simplified interpretations of Eastern thought—light-mindedly mixed with Heideggerian "woodpaths" and Jungian archetypes—obscure the many gnawing philosophical problems that are endemic to ecological thought, surprisingly few ecologically oriented people seem to feel that Western philosophy and social theory have much to contribute. Instead, the Western tradition is reviled as the monolithic source of ecological problems. Indeed, it is stylish to heap epithets on Descartes as the "source" of dualism and on Francis Bacon as the "source" of scientism—with or without reading their works. But rich traditions of ideas that originated in ancient Athens, that reached their high point in thinkers like Denis Diderot and particularly Hegel, and that still haunt us in the works of R. G. Collingwood and Hans Jonas, are ignored. (Need I add that social theory suffers even more, especially from a lack of in-depth study of Rousseau, Marx, and Kropotkin.) Nor is Western thought made artificially relevant to ecological thinking by turning Spinoza into a Buddhist—a kind of "woodpath" that was first cleared years ago, when Erich Fromm tried to turn

Marx into a Zen master. To orientalize—California style—thinkers whose work emerged from distinctly Western problematics and traditions not only violates Western traditions and their integrity but serves to obscure both the contributions and the failings of these thinkers, thereby distorting them.

What is especially important is that the Western organismic tradition is much sturdier in its thrust than the Eastern. All too often, what "eco"-faddists unknowingly take from the West is not its organismic tradition but, ironically, its static analytical positivistic logic, a way of reasoning that stands at odds with organismic tendencies—even as they turn to the East for poetry to satisfy their more spiritualistic proclivities. This oddly schizophrenic ideological mutation has produced a strange twist in philosophical thinking within today's ecology movement: even as its mind is Western in its harsh instrumental methodology, its heart is uncritically Eastern in its sentimentality. The strange combination of a Western "mind," in its most instrumental and analytical positivistic form, with an Eastern "heart," at its most vaporous and squamous, cannot be resolved by a gospel of peaceable coexistence but must ultimately yield a total contradiction. Ecology's "pop" culture is at war with its own logical underpinnings.

Today's eclecticism jumbles together thinkers whose ideas are, to say the least, unrelated. In the academy, an incoherent body of "ecophilosophy" has emerged—a catchall "receptacle" (to borrow a metaphor from Plato's *Timaeus*) that wildly mixes tendencies that are sharply at variance with each other logically but that coexist in a blissful state of ignorance emotionally. To roll together Heidegger's ineffable "openness to Being" and Barry Commoner's trite cafeteria "ecology," with its maxim that there is "no such thing as a free lunch" in nature, is adolescent at best

and insidious at worst. It asks us to descend from the Bavarian Alps to a New Jersey shopping mall without even popping an eardrum.

Typical of this eclecticism is "deep ecology"—widely discussed at ecological conferences these days, even as participants contemplate what is "deeper" than "deep ecology." Yet its very name typifies a confusion in semantics. Leaving aside the problems of using the dimensional word *deep*, "shallow ecology"—intended as the technocratic counterpart of "deep ecology"—is hardly to be graced with the word *ecology* when it is in fact nothing more than *environmentalism*. Moreover, one can be very "deep" but profoundly wrong, as Cartesian philosophy and positivist theory reveal today. It does not help one's ecology—whether deep, shallow, or social—to fill in its gaps with some plaster borrowed from Taoism, mortar from Buddhism, concrete from Heidegger, and bricks from Spinoza, not to speak of mud from Commoner, Paul Ehrlich, and the like. Attempts to compost a great variety of views under a common rubric like "deep ecology" or "bioregionalism" are gravely misleading: there are differences within the ecology movement that are utterly at odds with each other, and their divergences are more important than their so-called "common goal."

There is, in fact, an organismic tradition in Western thought that is at least as rich as that of the East. Moreover, longstanding debates in the Western tradition have engaged philosophers with highly important problems that the East has not confronted as fully; indeed, the Western organismic tradition is much sturdier in its thrust than the Eastern. One does not have to travel far into Eastern thought to find dualisms that are no less intractable than Descartes's and notions of dominating nature that are no less strident than Bacon's. Issues of monism and

dualism, reductionism and dialectic, and the sometimes adversarial relationships between them were articulated, exacerbated, and confronted more clearly in the West—particularly in the works of Aristotle, Spinoza, and Hegel—than in the East, where these notions tended to take a vaporous and mystical form.

If my approach seems too "Eurocentric," let me warn the reader that Asian "centricity" is a greater affliction. It is the issues that ecological thinking raises, rather than geopolitical and demographic considerations, that should guide us here. Ultimately, the real questions that confront us are not only how to *feel* ecologically but how to *think* ecologically. The chasm between thought and feeling is growing wider today, not narrowing, despite the deluge of orientalized Westernisms that have descended upon us methodologically and the Westernized orientalisms that have descended upon us ontologically. It would be well, for a moment, to work with one tradition on its own ground and see what problems it raises and what solutions it advances.

## NATURE PHILOSOPHY—EAST AND WEST

To think ecologically is to enter the domain of nature philosophy. This can be a very perilous step. Serious political ambiguities persist in nature philosophy itself: namely, its potential to nourish reaction as well as revolution. Contemporary society is still seared by images of nature that have fostered highly reactionary political views. Vaporous slogans about "community" and humanity's "oneness with nature" easily interplay with the legacy of "naturalistic" nationalism that reached its genocidal apogee in Nazism, with its myths of race and "blood and soil." It requires only a minor ideological shift from the ideas of the nineteenth-

century Romantic movement and William Blake's mystical anarchism to arrive at Richard Wagner's mystical nationalism.

Nor does science, for all its claims to objectivity, rescue us from the waywardness of a nature philosophy tinged with romanticism and mysticism. The "naturalistic" injunctions with which Hitler initiated his blood-drenched march through Europe have their counterpart in the cosmic "laws" of natural history with which Stalin ideologically justified his blood-drenched industrialization of Russia. "Dialectical materialism," or "diamat"—which Friedrich Engels restated as "laws" like the "unity of opposites," the transformation of "quantity into quality," and the "negation of the negation"—anchored social development in an almost mechanistic causality that was as damning to modern claims of individuality and freedom as it was to the complex relationships of society to nature.

It is worth noting that the major theorists of the Frankfurt School, whose ideas are so fashionable these days, foundered on the horns of dilemmas that nature philosophy poses. Theodor Adorno and Max Horkheimer's dark pessimism about the human condition stemmed in large part from their inability to anchor an emancipatory ethics in a radically conceived ecological philosophy. Indeed, reason, in their view, was hopelessly tainted by its origin (as they understood it) as a means for dominating nature—a vast, presumably civilizatory enterprise that also required the domination of human by human as mere instruments of production. Marxist theory justified human servitude and the development of classes as unavoidable steps in humanity's "tortured" march toward freedom from material want and hopefully from social domination itself.<sup>2</sup> Such ideas, which traditional Marxism and liberalism celebrated and over which the Frankfurt School

brooded, were the received wisdom of the last century. Hence the inability of so many radical theorists today to grapple with nature philosophy, dialectic, or indeed, any organic approach that seeks to reinterpret these outlooks ecologically. The domain of nature as a ground for freedom has been rendered taboo by the political consequences of earlier interpretations, many of which have mystified, romanticized, or unified nature and its relationship to society by means of a cosmic mysticism that preempts reason by intuition.

On the other hand, the fact that Eastern sages thought and felt profoundly does not immunize their work to the criticism that ambiguity clouds much of it. The Tao Te Ching, imputed to Lao-tzu, can be read not only as the peasantry's "way" for moving with the "grain" of nature but as a handbook for elitist control of the peasantry—an ambiguity that is no less troubling than the fact that Plato's *Republic* can be read not only as a far-seeing disquisition on justice but as a Hellenic guide for a guardian elite in the manipulation of the people. Western acolytes of Eastern thought often use such ambiguity to their advantage, exploiting metaphors of Eastern sages to render completely self-contradictory arguments intelligible, if not exactly coherent. Ambiguity is no virtue in itself; rather, it demands clarification and elucidation.

When many quasi-religious Asian tracts are viewed from a social standpoint—which social ecology always requires—some of their ambiguity seems to disappear. In traditional China, a fatalistic peasantry was an easily manipulable peasantry, however "softly" it dealt with nature—which was not quite as "soft" as the Western imagination tends to picture it. In this respect, Leon E. Stover's *The Cultural Ecology of Chinese Civilization* is a much-needed companion

reader to Taoist and Buddhist literature.<sup>3</sup> The peasant village or Green Circle (*ch'ing chuan*) of the north—a sobriquet that Stover applies to Chinese villages generally—was traditionally the object of systematic plunder by an elite. This elite fostered a privileged “high culture” that patently justified their exploitation of the peasantry in the name of a “Great Connected Whole.” What was “great,” alas, was often what lay in the best interests of those who considered themselves “great,” not necessarily of the peasantry, who also formed part of the “whole.” Ecologically, the language of “connectedness” in the Tao Te Ching is enchantingly “naturalistic.” Socially, however, it provided a rhetorical patina for unchallenged despotism in which peasant and elite were “connected” not by a mutualistic symbiosis but by a parasitism in which the peasant was the host and the gentleman the parasite.

Folk culture was separated from high culture by the illiteracy and contraction of the peasant village to an introverted, parochial, and self-enclosed universe—one that kept Chinese society fragmented, hierarchical, and socially immobile. Villagers’ conceptions of nature were disconcerting: human life was seen in the most passive and resigned perspective, as a steady demographic flow into the “Sink of Death.” Even divested of its institutional and ideological trappings, Taoism historically almost certainly shaped the peasantry into a social body without choice, motivation, respite from poverty, or hope of escaping being drained into the “Sink.” In a “naturalistic” credo less of nurture than of unrelenting destiny, piety was intermingled with acquiescence toward one’s fate, and toil was intermingled with “sanctimonious husbandry,” as Stover calls it. From the viewpoint of the elite, the peasants’ pride in their husbandry was less important than their vulnerability to exploitation.<sup>4</sup>

It is not my purpose to dwell at any great length on the Asian heart that so often dazzles the Western head. What is more important here is that this head is more mechanistic, instrumental, and inorganic than it cares to admit. Much that passes for ecological thinking today is as dim methodologically as it is starry-eyed ideologically. Behind the “Third Wave” that is rolling over us, the “new paradigm” that is shifting us, the “feedback” that is electrifying us, and the “woodpaths” that are guiding us, is a bizarre form of thinking that is as airy on its spiritual peaks as it is crudely mechanistic at its hypothetico-deductive base. These contradictory “ecological zones,” as it were, reflect serious ambiguities in nature philosophy itself: namely, its potential to nourish reaction as well as revolution, often with the same visions that fed a Blake at one extreme and a Wagner at the other. These “ecological zones” must be briefly surveyed if the project of thinking ecologically is to be seriously explored.

### SPIRITUAL MECHANISM

At the peril of standing very much at odds with what is voiced these days in ecological philosophy, let me say that the problem of dualism—the mode of thought that counterposes mind to body, thought to reality, and society to nature—which receives so much emphasis in ecological literature is giving way to the more serious problem of reductionism.

Dualism and reductionism, in fact, are usually deeply entangled with each other. A crude dualism tends to foster its counterpart in an equally crude monism that simplifies all of reality into a single, often homogeneous agency, force, substance,

or energy source. Hegel caustically called this "a night in which all cows are black." The mystical sparks of light that appear in this "night" should not deceive us. That reductionist notions glimmer with words like Spirit, cosmic energy, vital forces, and *energy centers* barely conceals the fact that reductionism emerges from ways of thinking that are no less mechanistic, instrumental, and analytical than the hypothetico-deductive mentality that has assumed such supremacy over the past two centuries of Western thought. Seemingly mystical, spiritual, and even organismic conclusions are often deduced by means of hypothetico-deductive approaches, which in turn infect the entire project of "re-enchancing" the world with dismally "disenchancing" instrumental underpinnings. Indeed, as we shall see, "method" can never be blandly detached from the content it yields, just as the means one uses in politics and life generally significantly determines the ends one pursues.

One has only to consider the current love affair between ecological philosophy and systems theory to observe this reductionism in its most popular, untutored, and syncretic form. Fritjof Capra's widely read *The Turning Point* can be taken as an example. "The creative unfolding of life toward forms of ever increasing complexity," we learn, "remained an unsolved mystery for more than a century after Darwin, but recent study has outlined the contours of a theory of evolution that promises to shed light on this striking characteristic of living organisms. This is a systems theory that focuses on the dynamics of self-transcendence and is based on the work of a number of scientists from various disciplines"—he mentions, among others, Ilya Prigogine, Gregory Bateson, and Ervin Laszlo, to single out those who are widely known in the United States. Capra continues:

The basic dynamics of evolution, according to the new systems view, begins with a system of homeostasis—a state of dynamic balance characterized by multiple independent fluctuations. When the system is disturbed it has the tendency to maintain its stability by means of negative feedback mechanisms, which tend to reduce the deviation from the balanced state. However, this is not the only possibility. Deviations may also be reinforced internally through positive feedback, either in response to environmental changes or spontaneously without any external influence. The stability of a living system is continually tested by its fluctuations, and at certain moments one or several of them may become so strong that they drive the system over an instability into an entirely new structure, which will again be fluctuating and relatively stable. The stability of living systems is never absolute. It will persist as long as the fluctuations remain below a critical size, but any system is always ready to transform itself, always ready to evolve. This basic model for evolution, worked out for chemical dissipative structures by Prigogine and his collaborators, has since been applied successfully to describe the evolution of various biological, social, and ecological systems.<sup>5</sup>

Almost everything that is troubling about spiritual mechanism, from its terminology to its thought, is contained in this telling passage. Systems theory is certainly useful in explaining the opera-

tion of systems, especially ones so structured as to lend themselves to systems theory analysis, just as the equations of physics can explain any phenomenon that can be reduced to the terms of physics. What serious people in ecological philosophy have to ask themselves is whether evolution, let alone self-transcendence, can really be reduced to "dynamics," "interdependent fluctuations," "feedback mechanisms"—or even "inputs" and "outputs"—that do not differ in principle from the Newtonian orientation toward phenomena or from La Mettrie's eighteenth-century description of human beings as machines. If there is anything developmental or evolutionary (as distinguished from merely kinetic) about a systems theory "paradigm," it is simply that some relatively homeostatic phenomena, conceived precisely as systems, may be replaced with other, hopefully complex systems. In either case, despite the imagery that Capra tries to form in the reader's mind, we cannot properly speak of one mechanism being qualitatively transformed into another. If the essential problem of organic development is reduced at all its levels to "feedback loops" and "fluctuations," our thinking has not advanced beyond Cartesian and Hobbesian mechanism, however lavishly we speak of the "coevolution of an organism *plus* its environment," of "wholeness," or of Taoist sagacity and Franciscan theology.<sup>6</sup>

There is a physical basis to everything that physics—"Taoist," Newtonian, or Prigoginian—describes with varying degrees of exactness and at various levels of physical development. But this fact is no more a warrant for casting *all* phenomena in terms of these descriptions than reducing the entire world to matter and motion. Indeed, such reductionism is fatal to any form of organismic thinking. Capra's explication of a systems theory of evolution describes thought as "free."<sup>7</sup> But to speak of "autonomy

and freedom of choice" in nature, pure and simple, is to diminish the ethical meaning of the words. Nature may be an evolving *ground* for autonomy, freedom, and an increasing measure of choice, but a ground is *no more identical with the ethics it sustains* than nutrients in soil are identical with the plants they sustain. Autonomy and freedom presuppose human intellection, the power to conceptualize and generalize. Their domain must be explicated in cultural, logical, and, within very definite limits, biological terms—not in terms of a cosmic "dynamics" that is "basically open and indeterminate."<sup>8</sup> Indeed, to flippantly confuse indeterminacy with autonomy and openness with freedom is to shift from one level to another as carelessly as one stirs a cup of tea. Capra's approach to "freedom" renders indeterminacy and statistical probability in physics coequal with human social freedom, without the least regard for the staggering complexity of social institutions, wayward individual proclivities, diverse cultural traditions, and conflicting personal wills.

Ilya Prigogine has attempted to explain the organic process of evolution through "chemical dissipative structures," in which various systems are formed in succession, each hopefully of greater complexity than the ones that preceded it.<sup>9</sup> In a succession of systems, these "dissipative structures," which can be mathematically formulated, are shown to succeed each other: a system approaches a "far from equilibrium" situation, which marks its transition to a new system. Here, as "dissipative structures" replace the phases of growth, development gives way to thermodynamics. Nor does a system of positive feedback, upon which Prigoginian systems theory depends, *allow for a concept of potentiality*: it is rather *chance and stochastic phenomena* that act as "mediating" phases between one "dissipative structure" and

another. Confronted with "far from equilibrium" disorder and succeeding orderly systems, speculative thought is reduced to mere observation. Indeed, a system approaching transition may not assume an immanently predictable form thereafter—it may simply fall apart into "chaos." These systems have, in effect, no internal developmental logic.

Prigogine's mathematics can no more explain the biological, social, and personal differentiae that make up reality, even with the aid of winged Taoist metaphors, than a heap of bricks can form itself into a Gothic cathedral through the "fluctuations" involved in positive feedback. One could, with equal aplomb, try to reduce organic metabolism to Einstein's cosmic formula  $E = mc^2$ , simply because it is cosmic. At the risk of adding to philosophy's already heavy burden of "fallacies," I would define the "reductionist fallacy" as the application of the most general formulas to the most detailed particulars, in the belief that what is universal and seemingly all-encompassing must necessarily explain what is highly particular and uniquely individual.<sup>10</sup> At best, a formula, a "paradigm," or more properly, a philosophy, may provide the basis for an orientation toward reality at a clearly definable level of reality. Ironically, the more universal, abstract, and mathematical a formula is, the more likely that its very generality will limit it when it is applied to concrete, highly particularized phenomena.  $E = mc^2$  is *too* cosmic to explain such richly articulated or mediated modes of reality as natural evolution, organic metabolism, social development, and personal behavior.

Not surprisingly, New Age acolytes of ecology become authentic reductionists. "God," "Energy," "Being," "Love," "Interconnectedness," and a whole repertoire of metaphors are invoked that serve to homogenize the particular and divest it of its rich-

ness and diversity. When this approach proves too abstract, it is always possible to create a pastiche of ill-digested "paradigms" and theories, regardless of the fact that their premises and logic may conflict with each other. Here eclecticism, which usually clouds radically different ways of thinking and the myth that we all share a "common goal," becomes the last redoubt for sheer intellectual sloppiness.

The language that the more sophisticated systems theorists use reflects the concepts they bring to their "paradigms." Complex results are stripped down to their most elemental levels so that they can be handled in physico-mathematical terms. That hypothetico-deductive analyses have immense value in relations that are authentically dynamic or mechanical is not in question here; their value in these domains of knowledge cannot be surpassed. What is troubling is that systems theory tends to become a highly imperialistic ideological approach that stakes out a claim to the totality of development, indeed to reason out and explain virtually all phenomena. *If* natural evolution, organic metabolism, and personal behavior were systems, *then* systems theory in all its self-fulfilling grandeur would seem to work admirably. That this "if-then" conversion (and I will have more to say about these later) denudes phenomena of many complex qualities that do not lend themselves to systems analysis is conveniently lost in a shuffle of grandiose metaphors that appeal more to an ever-yielding heart than to a demanding logical mind.

By contrast, the power of the West's organismic—more precisely, dialectical—tradition (even at Hegel's highly conceptual level) lies in *building up* the differentiae of natural and social phenomena from what is implicit in their abstract level—not in corrosively *reducing* their richly articulated concreteness to

abstract, logically manipulable "data." The difference between the two approaches could not be stated sharply enough. Dialectic, as we shall see, tries to elicit the development of phenomena from their level of abstract "homogeneity," latent with the rich differentiation that will mark their maturity, while systems theory tries to *reduce* phenomena from their highly articulated particularity to the level of homogeneous abstraction so necessary for mathematical symbolization. Dialectic, in effect, is a logic of evolution *from abstraction toward differentiation*; systems theory is a logic of devolution *from differentiation toward abstraction*.

For the present, it is important to note that the careless use of the word *complexity* often tells us nothing whatever about the nature of a complex phenomenon and its development, anymore than the careless use of the word *process* tells us anything about the nature of a complex process. Many complex phenomena, viewed in an ethical or even in a survival sense, are positively harmful and woefully unecological, such as the complex, presumably self-regulating market—whose advocates are, in fact, captivated by the theoretical premises of Prigogine's version of systems theory. Nor can we ignore complex processes that can degrade a biologically desirable development, such as epidemics that exterminate ecologically valuable species.

Development without a "goal in it, or purpose," as Capra declares somewhat dolefully, can be equally meaningless, despite the fact that his "systems theory of life" finds a "recognizable pattern of development."<sup>11</sup> The word *pattern*—or for that matter, *paradigm*—is no substitute for the idea of *tendency* in speculative philosophy. In the absence of everything but a system of positive feedback that may or may not yield complexity, Capra, like many of his associates, is obliged to turn to the East and import an

ethics to render systems theory meaningful—even in flat contravention of his Western methodology. In a sudden leap, the language (not to speak of the conceptual framework) of *The Turning Point* undergoes a startling transformation. Invocations of "a new holistic worldview," "a conceptual shift from structure to rhythm"—extended to the "rise and fall" of civilizations, indeed to the "planet as a whole ... as it spins around its axis and moves around the sun"—suddenly overlie the "dynamics" and "feedback loops" that actually form the eminently Western methodological underpinnings of his "systems view of life." "Eastern mystical traditions, especially in Taoism," are thrown into a pot-pourri of formulations whose only similarity is metaphoric.<sup>12</sup> "The idea of fluctuations as the basis of order is one of the basic themes in Taoist texts," Capra apprises us, making it seem in the most superficial way that Taoism parallels Prigogine's systems approach. But "fluctuations," like "cycles," have been used from time immemorial to explain stagnation rather than evolution, fixity rather than change, and eternity rather than development. Syncretically placing fluctuations in systems theory on a par with fluctuations in Taoism is about as sound as placing the electromagnetic "attraction" in physics on par with Eros as a "cosmic" source of affinity and unity. From a methodological viewpoint, Prigogine's mathematical formulation of chemical dissipative structures fits just as snugly into Newton's mechanistic sensibility as the corpuscular theory of light fits into the wave theory. These conceptual frameworks meld together because they derive from the same hypothetico-deductive, indeed clearly mechanistic mentality.

Nor is it helpful to recast the "systems view of life" into Gregory Bateson's theoretical framework. Here, materiality is dis-

solved into interrelationships and then subjectivized as "minds." This framework might be somewhat comprehensible to an Eastern sage, but it divests substance, indeed nature itself, of its very physicality. Abandoning the study of things—living or not—for a study of the relationships between them is as one-sided and reductionist as abandoning the study of relationships for the things they interrelate. If traditional materialist mechanism strongly emphasized the object, often with results that inhibited speculation beyond the given state of affairs, Bateson's emphasis on relationships verges on a subjectivism that could almost be taken for solipsism if one did not know more about Bateson's work as a whole. The claim that "all experience is subjective" and that "our brains make the images that we think we 'perceive'" borders on an idealist counterpart of Jacob Moleschott's equally crude materialist maxim, "No thought without phosphorus."<sup>13</sup>

Thinking once presupposed a knowledge of thought as it unfolded over millennia of philosophical and social development. Today, the intellectual span of the present generation barely extends beyond a decade and is marked by a disquieting bias in favor of journalistic glibness. That ecological acolytes of systems theory often merely stand Newtonian mechanism on its head yet receive no criticism from ecologically oriented intellectuals is evidence of the cultural Dark Ages that are gathering around us. We are even witnessing a revival of Hume's "is-ought" criticism, which denies speculative thought the right to reason from the "what-is" to the "what-should-be." This positivistic mousetrap is a problem not in logic but in ethics—notably, the right of the ethical "should-be" to enjoy an objective status. The problem of constituting an objective ethics, which confounded the Frankfurt School, is no less serious than Hume's quarrel with organized

religion. Speculative philosophy by definition claims that reason can project *beyond* the given state of affairs, whether to Plato's exemplary domain of forms or Marx and Kropotkin's visions of a cooperative society. To remain within the "what-is" in the name of logical consistency is to deny reason the right to assert goals, values, and social relationships that provide a voice to the claims of ecology as a social discipline.

These theoretical problems have an eminently practical significance. In all cases they reveal an intellectual glibness that dissolves that which is concrete in the ecological picture, indeed the life-forms that give substantially to the various systems, into interrelationships, "dynamics," and "minds" that Capra, Prigogine, Bateson, et al., abstract into lifeless categories. Thus reductionism not only turns complex organisms and their equally complex evolution into mechanical "fluctuations," debasing concrete organisms into abstract interrelationships; it turns life in all its rich specificity into an abstraction, thereby divesting nature of the variety, indeed the species-individuality so essential to an understanding of nature's fecundity and its evolutionary impetus.<sup>14</sup>

## HUMANISM AND ANTIHUMANISM

"Humanity," currently so unfulfilled and divided against itself, has scarcely realized its potentialities. But in much current "ecological" thinking the concept of humanity is no less sucked into the ideological black hole.<sup>15</sup> Ideologically, the phenomenon of human self-hatred (and human beings seem to be the one species that has the ability to luxuriate in self-hatred) takes a number of forms: a logically ambiguous "biocentrism" and often strident antihumanism are set against "anthropocentrism" and

humanism—presumably the cardinal sins of an abstract “Man,” who is determined to despoil an equally abstract “Nature.” If systems theory divests nonhuman life of its specificity, biocentrism and antihumanism divest human life of social development. Society becomes an abstraction that somehow is inflicted upon “Nature” without any regard for such social characteristics as hierarchy, domination, and the state. As a result, a simplistic biologism emerges, often structured around “natural laws,” that sees “Man” and humanism as a curse that afflicts “Nature” with ecological degradation. As a result, some voices in the ecology movement call for a moral “biospheric democracy” in which humanity’s “right” to live and fulfill itself is equatable with that same “right” in butterflies, ants, whales, apes, and—yes—pathogenic viruses and germs.

Viewed heuristically, biocentrism is an effort to bridle “human” arrogance toward other life-forms and defy the present destruction of the biosphere. But how long one can continue to belabor “humanity” for its affronts to the biosphere without distinguishing between rich and poor, men and women, whites and people of color, exploiters and exploited, is a nagging problem that many ecological philosophers have yet to resolve, or perhaps even recognize. Biocentrism, for all the caveats its supporters issue to qualify it, strikes me as bluntly misanthropic and less an ecological principle than an argument against the human species itself as a life-form.

Taken separately, perhaps, the intentions of their adherents may be good, even as these theories are seriously faulty. United into a single ensemble, however, they develop a harsh logic and create an arena for explicitly vicious views. It was not surprising that David Foreman, then of Earth First! and an

avowed acolyte of “deep ecology,” could advance the following “ecological” verdict on the Third World:

When I tell people how the worst thing we could do in Ethiopia is to give aid—the best thing would be to just let nature seek its own balance, to let the people there just starve ... they think that is monstrous. But the alternative is that you go in and save these half-dead children who never will live a whole life. Their development will be stunted. And what’s going to happen in ten years’ time is that twice as many people will suffer and die.

Likewise, letting the USA be an overflow valve for problems in Latin America is not solving a thing. It’s just putting more pressure on resources we have in the USA. It is just causing more destruction of our wilderness, more poisoning of water and air, and it isn’t helping the problems in Latin America.<sup>16</sup>

Regrettably, it is all too easy to interpret such remarks as an apologia for imperialism, racism, and genocide. To consider starvation as merely an “alternative” to the civil war that wracked Ethiopia and the destruction of so much of the cultural integrity of Latin American villages by (largely American) corporate interests reveals a shocking social amnesia. It is breathtaking to contemplate the extent to which this “ecological” ensemble of ideas deflects public attention from the social origins of ecological problems. That anything besides “nature” is seeking its “balance” in the Third World seems to elude Foreman, whose obfuscation of

social problems expresses the logic of a reductionist "ecology." Such "reverence for the earth" stifles even the modest decencies of middle-class virtues like empathy and concern for the plight of hungry children. "Earth wisdom" of this kind could well leave us with a "love" of the planet but no care for the underprivileged who make up so much of the human species.

Yet Foreman's remarks are not idiosyncratic. Quite to the contrary: an authoritarian streak is latent in a crude biologism that conceals an ever-diminishing humaneness with "natural law" and papers over the fact that it is *capitalism* that is at work here, not an abstract "Humanity" and "Society." This authoritarian mentality sometimes coexists with pious appeals to variants of Eastern spirituality, placing a saintly mask on the ruthless egoism that stems from bourgeois greed. "Ecological thinking" of this kind is all the more sinister because it subverts the organic, indeed dialectical thinking that can rescue us from reductionism. An unbridgeable gulf separates social ecology from the neo-Malthusianism that the ensemble of biocentrism, antihumanism, and "natural law" theory have spawned. We are grimly in need of a "reenchantment" of humanity—to use the quasi-mystical jargon of our day—with a fluid, organismic, and dialectical rationality. For it is in this *human* rationality that nature ultimately actualizes its own evolution of subjectivity over long aeons of neural and sensory development. *There is nothing more natural than humanity's capacity to conceptualize, generalize, relate ideas, engage in symbolic communication, and innovate changes in the world around it, not merely to adapt to the conditions it finds at hand.*

For biocentric, antihumanist, and "natural law" advocates to set their faces against the self-realization of nature in an ecologically oriented humanity and dialectical thought is to foster the image

of a blighted humanity. No less than Adam and Eve's acquisition of knowledge, humanity's power of thought becomes its abiding "original sin."

## ECOLOGIZING THE DIALECTIC

It is eminently *natural* for humanity to create a "second nature" from its evolution in "first nature." By *second nature*, I mean the development of uniquely human culture, with a wide variety of institutionalized human communities, effective human techniques, richly symbolic languages, and carefully managed sources of nutriment. Dualism, in all its forms, has opposed these two natures to each other, as antagonists. Monism, in turn, often dissolves one into the other—be it liberalism, fascism, or more recently, the biocentrism that so closely approximates misanthropic antihumanism. These monist ideologies differ primarily in whether they want to dissolve first nature into second or second nature into first.

What these dualisms and monisms have in common is an acceptance of domination. Classically, the counterpart of the "domination of nature by man" has been the "domination of man by nature." Just as Marxism and liberalism see the former as a desideratum that emerges out of the latter, so enthusiasts of "natural law" accept the latter as a fact and condemn efforts to achieve the former. These views are deeply flawed—not only because they are conceptually one-sided or simply wrong, but because of the way they are philosophically structured and worked out. The real question, I submit, is not whether second nature parallels, opposes, or blandly "participates" in an "egalitarian" first nature;<sup>17</sup> rather, it is how second nature is *derived* from first

nature. More specifically, in what ways did the highly graded and many-phased evolution from first nature into second give rise to social institutions, forms of interactions between people, and an interaction between first and second nature that, in the best of cases, enriches both and yields a second nature that has an evolutionary development of its own? The ecological crisis we face today is very much a crisis in the emergence of society out of biology, in the problems (the rise of hierarchy, domination, patriarchy, classes, and the state) that unfolded with this development, and in the liberatory pathways that provide an alternative to this warped history.

The fact that first and second nature exist and can never be dualized into "parallels" or simplistically reduced to each other accounts, in great part, for my phrase *social ecology*. Additionally, social ecology has the special meaning that the ecological crisis that beleaguers us stems from a social crisis, a crisis that the crude biologism of "deep ecology" generally ignores. Still further, that the resolution of this social crisis can only be achieved by reorganizing society along rational lines, imbued with an ecological philosophy and sensibility.

Such a philosophy and sensibility cannot be eclectically patched together from bits and pieces of mechanism and mysticism, or of conventional reason and Eastern spirituality. One could respect a consistently Eastern mystical view or a consistently Western mechanistic view, however one-sided or erroneous each may be. But neither view can fruitfully derive second nature from first nature organically. That requires a mode of thought that distinguishes the phases of the evolutionary continuum from which second nature emerges and yet preserves first nature as part of the process. Common sense betrays us with its demand for

conceptual fixity; mysticism, in turn, deflects us from rationality that goes substantially beyond poetic metaphors. A good deal of ecological thinking today, as we have seen, partakes of both modes—the mechanistic and the mystical—in an opportunistic, "catch-as-catch-can" manner, rather than restructuring its mode of thought in an authentically organic manner.

This much should be clear: the purely deductive logic that we use to build bridges, budget our income and expenses, plan our everyday lives, and calculate our chances of "making out" in the world holds no promise of grasping the richly articulated or mediated development that both unites and differentiates first and second nature. Common sense demands only inference, consistency, and the verification that ordinary sensory experience provides. Apart from the inductively apprehended particulars that help us arrive (often quite intuitively) at the concrete premises for our inferences, we normally tend to deduce our ideas schematically, as a series of well-ordered and rigidly fixed concepts. Truth in this everyday logical domain is normally little more than consistency. Thus, we are held to be "logical" when our conclusions can be framed into fixed categories—supported, to be sure, by those atomized isolates known as "brute facts." This achievement is celebrated as "clarity" and its results as "certainty." To conceive of any form of reasoning other than a hypothetico-deductive logic is evidence of fuzzy-headedness. Facts, you know, are facts, and truth is truth. Consistency, the formalistic "if-then" propositions that make up conventional logic, together with experience as a sequence of "clear-cut" data and the eminently practical results that conventional logic achieves—all, taken together, are the means to "think clearly" and understand the "real world."

Yet there is a highly personal sphere of life in which we think very differently from conventional reason. We do not deal with children the way we deal with our business affairs and the pragmatics of everyday living. We see children as *developing* beings who pass through necessary phases of growth and increasing capabilities. We try not to impose more demands upon them than they can adequately handle at their age (assuming, to be sure, that we are rational and humane people). Nor do we try to afflict them with problems they cannot yet resolve. We sense a flow in their lives that involves the actualization of their potentialities at different levels of their development. It requires no unusual perception to recognize the infant that lingers on in the child, the child that lingers on in the youth, the youth that lingers on in the adult—in short, the *cumulative* nature of human development, in contrast to mere substitution and succession. Only a fool believes that the man or woman could—or should—completely replace the boy or girl. Properly understood, a mature person is not an inventory of test results and measurements. He or she is an individual *biography*, the developmental embodiment of partially or wholly realized qualities that an environment surely conditions but whose inherent makeup would ultimately determine his or her development if society acquired a highly rational form.

However intuitive it may be, this kind of thinking is structured around not deduction but *eduction*. If deduction consists of the inferential "if-then" steps we take, with due reverence for consistency, to arrive at unshakable and clearly defined judgments about "brute facts," eduction fully manifests and articulates the latent possibilities of phenomena. Eduction is a phased process in which "if" is not a fixed hypothetical premise but

rather a *potentiality*. "Steps" in eduction are not mere inferences but stages of *development*. "Consistency," far from being an imposed canon of logic based on principles of identity, contradiction, and the excluded middle, is the immanent process we properly call *self-development*. Finally, "then" is the full *actualization* of potentiality in its rich, self-incorporative "stages" of growth, differentiation, maturation, and wholeness. That the "mature" and "whole" are never so complete that they cease to be the potentiality for a still further development represents an ecological change I am advancing here.

Which brings us to the problem of what we are obliged to modify in the dialectical philosophy of its two most outstanding voices, Aristotle and Hegel, in order to render it an *ecological* mode of thought.<sup>18</sup> To do this, we must briefly summarize what an ecological dialectic shares with the Aristotelian and Hegelian. Dialectical philosophy moves from the undifferentiated abstract to the highly differentiated concrete (while most commonsensical forms of thought move in the opposite direction). In this respect dialectic picks up the thread of classical eduction and goes beyond it, moving from that which is implicit in bare potentiality to its realization in a fully articulated actuality. Much of Greek philosophy expressed this problematic as that of the emergence of the Many from the One: in Aristotle's work, the apogee of classical thought, "a conception of substance, or the real, as the goal toward which develops a potential being that, save as ultimately realized, is neither real nor intelligible, dominates the whole course of Aristotle's speculation," observes G.R.G. Mure in a very pithy formulation. "Follow him as he applies it in every sphere which he investigates; watch it grow from this initial abstract formula into a concrete universe of thought; and you may hope to

grasp the essential meaning of his philosophy."<sup>19</sup> The same could be said of Hegel, whose elaboration of this Aristotelian motif is more subjectivized and informed, although at times it is cluttered by the mountain of problematics that had been added to Western philosophy since Aristotle's time.

An ecological dialectic would have to address the fact that Aristotle and Hegel did not work with an evolutionary theory of nature but rather saw the natural world more as a *scala naturae*, a ladder of "Being," than as a flowing continuum. An ecological dialectic introduces evolution into this tradition and replaces the notion of a *scala naturae* with a richly mediated continuum. Both thinkers were more profoundly influenced by Plato than their writings would seem to indicate, with the result that in the case of Hegel, we move within a realm of concepts more than history (however historical Hegel's dialectic invariably was). Hegel was strongly preoccupied with the "idea" of nature rather than with its existential details, although he honored this preoccupation in the breach. Finally, the overarching teleology of the two philosophers tends to subordinate the contingency, spontaneity, and creativity that mark natural phenomena.<sup>20</sup> Hegel, with his strong theological bent, terminated the unfolding of the world in an "Absolute" that encompasses it in an identity of subject and object. In an ecological dialectic, by contrast, there would be no terminality that could culminate in a God or an Absolute. "Actuality," to use Hegel's special term, is the almost momentary culmination of maturity, so that the objectivity of the potential, which is crucial for an objective ethics, is subordinated to its actualization.

English translations of Hegel often erroneously render *real* and *actual* as synonyms in certain passages, allowing the

Hegelian "real" to be conceived as the actualization of the potential—a failing that I believe should be corrected. What is less "real" than Hegel's "reality"—notably the "brute facts" or the given "is" of common sense—would more closely correspond to what Hegel considers "the apparent" (*das Erscheinende*). From an ecological viewpoint, this mistranslation could lead to much confusion. Hence, I have used the word *real* to mean simply "what-is," not "what is necessarily latent in the potential." The *actual* remains very much what Hegel meant it to mean: the rational realization of the potential, as distinguished from the "real" as the existential.<sup>21</sup> Finally, an ecological dialectic greatly modifies the creative role that Hegel imparted to strife, often interpreted as mere "antithesis" (which is roughly as far as Theodor Adorno takes the dialectic in his *Negative Dialectics*), but not without ignoring the presence of strife in human history. It emphasizes that the dialectic, no less in Hegel's than in my own thinking, undergoes differentiation through a transcendence beyond mere antithesis, notably what Hegel called an *Aufhebung* or negation of the negation. Dialectic is thus a philosophy of progress in which there is a growing elaboration and self-consciousness, insofar as the world is rational.

Dialectic, let me emphasize, is not merely "change," "motion," or even "process," all banal imputations to the contrary notwithstanding. Nor can it be subsumed under "process philosophy." Dialectic is *development*, not only change; it is *derivation*, not only motion; it is *mediation*, not only process; and it is *cumulative*, not only continuous. That it is also change, motion, process, and a continuum tells us only part of its true content. But denied its immanent self-directiveness and its entelechial education of the potential into the actual, this "process

philosophy," indeed this remarkable notion of *causality*, ceases to be dialectic. Instead, it becomes a mere husk that our current flock of "eco"-faddists can reduce to "kinetics," "dynamics," "fluctuations," and "feedback loops"—the same mechanistic verbiage with which systems theory dresses itself up as a developmental philosophy.

As Hegel warned in the course of educating the complexity of the dialectical process: knowledge has "no other object than to draw out what is inward or implicit and thus to become objective." But if

that which is implicit comes into existence, it certainly passes into change, yet it *remains one and the same*. ... The plant, for example, does not lose itself in mere indefinite change. From the germ much is produced when at first nothing was to be seen; but the whole of what is brought forth, if not developed, is yet hidden and ideally contained within itself. The principle of *this projection into existence* is that the germ cannot remain merely implicit, but is impelled toward development, since it presents the contradiction of being only implicitly and yet not desiring to be so.<sup>22</sup>

Thus dialectic is not *wayward* motion, the mere kinetics of change. There is a rational "end in view"—not one that is pre-ordained, to state this point from an ecological viewpoint rather than a theological one, but that actualizes what is implicit in the potential. Every "if-then" proposition is premised not on any *if* that springs into one's head like a gambler's hunch; it posits a

potentiality that has its ancestry in the dialectical processes that preceded it.

Reductionism breaks this process down to the most undifferentiated interactions it can formulate. But it does so at the cost of demolishing the various phases or "moments" (to use Hegelian terminology) from which the process is literally constituted. A human being is clearly an ensemble of chemicals. While reductionism can explain its existence as a physico-chemical phenomenon, it cannot comprehend it as a remarkably complex form of life. Chemical analysis provides us with no substitute for the multitude of forms, relationships, processes, and environments that the organic creates for itself as it metabolically sustains its own "selfhood" in distinction from other "selves." Indeed, carried too far into a lower level of phenomena, reduction leads to dissolution, so that the very integrity of a given level of phenomena—be it social, biological, chemical, or physical—simply disappears into mere "matter" and "motion." In a kind of ideological entropy, thought no longer has the differentiae with which to define its subject matter, let alone explore it. As the complex is trimmed down to its "irreducible" components, the whole that forms the very premises of thought disappears into a meaningless, indeed formless heap of "matter," thereby erasing the very boundaries that give *definition* to a phenomenon as a component of a more complex "whole."

In the organic world, the metabolic activity of the simplest life-forms constitutes the sense of self-identity, however germinal, from which nature acquires a rudimentary subjectivity. Not only does this rudimentary subjectivity (which reductionism necessarily cannot encompass) derive from the metabolic process of self-maintenance, a process that defines any life-form as a unique

whole; it extends itself beyond self-maintenance to become a *striving* activity, not unlike the development from the vegetative to the animative, that ultimately yields mind, will, and the potentiality for freedom. Conceived dialectically, organic evolution is, in a broad sense, subjective insofar as life-forms begin to exercise choices in adapting to new environments—a conception that stands much at odds with that clearly definable fixity we blissfully call “clear thinking.” Systems theory enters into the reductionist tableau in a sinister way: by dissolving the subjective element in biological phenomena so that they can be treated as mathematical symbols, systems theory permits evolutionary interaction, subjective development, and even process itself, to be taken over by “the system,” just as the individual, the family, and the community are destructured into “the System” embodied by the economic corporation and the state. Life ceases to have subjectivity and becomes a mechanism in which the tendency of life-forms toward ever-greater elaboration is replaced with “feedback loops,” and their evolutionary antecedents with programmed “information.” A “systems view of life” literally conceives of life as a system, not only as “fluctuations” and “cycles”—mechanistic as these concepts are in themselves.

Despite the external selective factors with which Darwinians describe evolution, the tendency of life toward a greater complexity of selfhood—a tendency that yields increasing degrees of subjectivity—constitutes the internal or immanent impulse of evolution toward growing self-awareness. This evolutionary dialectic constitutes the essence of life as a self-maintaining organism that bears the *potential* for the development of self-conscious organisms. Dialectic, in effect, is not merely a “logic” or a “method” that can be bounced around and

“applied” promiscuously to a content. It has no “handbook” other than *reason itself* to guide those who seek to develop a dialectical sensibility. Dialectic can no more be applied to problems in engineering than Einstein’s general theory of relativity can be applied to plumbing; these problems can best be resolved by conventional forms of logic, common sense, and the pragmatic knowledge acquired through experience. Dialectic can only explicate a rationally developmental phenomenon, just as systems theory can only explicate the workings of a fluctuating and cyclical system. The kind of verification that validates or invalidates the soundness of dialectical reasoning, in turn, must be *developmental*, not relatively static or for that matter “fluctuating” kinds of phenomena.

Hence, it distorts the very meaning of dialectic to speak of it as a “method.” Indeed, dialectical philosophy, properly conceived and freed of mechanistic presumptions, is an ongoing protest against the myth of methodology: notably, that the “techniques” for thinking out a process can be separated from the process itself. Its sensitivity for concrete phenomena, even when they are distilled into “concepts,” as Hegel did, is what renders dialectic such an existentially vital and palpably organismic philosophy. It was Hegel’s genius to reintroduce Plato’s supramundane world of forms—an *exemplary* and hence a *moral* world, not merely a metaphysical one—into reality and to develop Aristotle’s notion of entelechy into a concept of “transcendence” (*Aufhebung*) that nuances processes as mediated “moments in the self-fulfillment of their potentialities.” Freed of its theological trappings, dialectic *explains*, with a power beyond that of any conventional logic, how the organic flow of first into second nature is a reworking of biological into social reality. Each phase or

"moment," pressed by its own internal logic into an antithetical and ultimately a more transcendent form, emerges as a more complex unity-in-diversity that encompasses its earlier moments even as it goes beyond them. Despite the imagery of strife that permeates the Hegelian version of this process, the ultimate point in the Hegelian *Aufhebung* is reconciliation, not the nihilism of pure negation. Moreover, norms—the actualization of the potential "is" into the ethical "ought"—are anchored in the objective reality of potentiality itself, not as it always "is," to be sure, but as it "should be," such that speculation becomes a valid account of reality in its truth. Hegel, I would argue, *radically expanded the very concept of Being in philosophy and in the real world to encompass the potential and its actualization into the rational "what-should-be,"* not only as an existential "what-is."<sup>23</sup>

Dialectical speculation, despite Hegel's own view of the retrospective function of philosophy, thus is *projective* in a sharply critical sense (quite unlike "futurology," which dissolves the future by making it a mere extrapolation of the present). In its restless critique of reality we can call dialectic a "negative philosophy"—in contrast, I should add, to Adorno's nihilism or "negative dialectics." By the same token, speculation is creative in that it ceaselessly contrasts the free, rational, and moral actuality of "what-could-be," which inheres in nature's thrust toward self-reflexivity, with the existential reality of "what-is."<sup>24</sup> Speculation can ask "why" (not only "how") the real has become the irrational—indeed, the inhuman and anti-ecological—precisely because dialectic alone is capable of grounding an ecological ethics in the potential, that is, in its objective possibilities for the realization of reason and truth.

This objectivization of possibilities—of potentiality continuous with its yet unrealized actualization—is the ground for a

genuinely objective ethics, as distinguished from an ethical relativism subject to the waywardness of the opinion poll. An ecological dialectic, in effect, opens the way to an ethics that is rooted in the objectivity of the potential, not in the commandments of a deity or in the eternality of a supramundane and transcendental "reality." Hence, the "what-should-be" is not only objective, it forms the objective critique of the given reality.

Human intervention into nature is inherent and inevitable. To argue that this intervention should not occur is utterly obfuscatory, since humanity's second nature is not simply an external imposition on biology's first nature but is the result of first nature's inherent evolutionary process. What is at issue in humanity's transformation of nature is whether its practice is consistent with an objective ecological ethics that is rationally developed, not haphazardly divined, felt, or intuited. Minimally, such an ecological ethics would involve human stewardship of the planet. A humanity that failed to see that it is potentially nature rendered self-conscious and self-reflexive would separate itself from nature morally as well as intellectually. Second nature in such a situation would literally be divested of its last ties to first nature; worse, the vacuum left by the departure of consciousness would be filled by blind market-oriented interests and an egoistic marketplace mentality. In any case, there is no road back from second to first nature, any more than second nature as it is now constituted can rescue the biosphere from destruction with "technological fixes" and political reforms.

Given the massive ecological crisis that confronts us, intellectual confusion in the ecology movement may yield harmful results of immeasurable proportions. In the present period of history, to carelessly heap fragments of ideas upon each other and

call this ecophilosophy is no longer an affordable luxury. Stewardship of the earth need not consist of such accommodating measures as the establishment of ecological wilderness zones or half measures to patch up environmental dislocations. What it can and should mean is a radical integration of second nature with first nature along far-reaching ecological lines, an integration that would yield new ecocommunities, ecotechnologies, and an abiding ecological sensibility that embodies nature's thrust toward self-reflexivity. For biocentrists and antihumanists to throw the word *arrogance* around whenever anyone cites human beings as ethical and mental referents for nature and natural evolution is manipulative. Nature without an active human presence would be as unnatural as a tropical rainforest that lacked monkeys and ants. Dialectic, it should be noted, is no less a critique of one-sidedness and simplicity than of existing reality and an adaptive mentality to the status quo. Cast in radical ecological terms, it calls for a denial of *centricity* as such, be it "anthropocentricity," "biocentricity," or so-called "ecocentricity," which is meant to include rocks and rivers as well as life-forms. A philosophy of organic development is above all a philosophy of *wholeness* in which evolution reaches a degree of unity-in-diversity such that nature can *act* upon itself rationally through rational human agency, with its derivation in nature's potential for freedom and conceptual thought.

In the intermediate zone between first and second nature that saw the graded passage of biological evolution into social, social evolution began to assume increasingly hierarchical forms. Whether this could have been avoided is impossible to say—and meaningless to divine. In any case, social evolution unfolded in the direction of hierarchical, class-oriented, and statist institutions,

giving rise to the nation-state and ultimately, albeit not inevitably, to a capitalist economy. In our own time, the massive penetration of this economy into society as a whole has produced an even more serious distortion of second nature. The market *economy*, which all cultures from antiquity to recent times have resisted to one degree or another, has essentially become a market *society*. This society is historically unique. It identifies progress with competition rather than cooperation. It views society as a realm for possessing things rather than for elaborating human relationships. It creates a morality based on growth rather than limit and balance. For the first time in human history, society and community have been reduced to little more than a huge shopping mall.

Unless ecology explores this warped development systematically—that is, unless it unearths its internal logic in a reasoned and organismic way—its critical thrust will be entirely lost and its integrity hopelessly impugned. Today, eclecticism and reductionism—a hodgepodge of disconnected, even contradictory ideas degraded to their lowest common denominator—are the most serious obstacles to the realization of this critical project. Eclecticism may appeal to lazy minds that prefer slogans to reasoned studies of society and its impact on the natural world. But with lazy minds come lazy thoughts and a passive-receptive mentality that increasingly renders the mind vulnerable to authoritarian control.

## BEYOND FIRST AND SECOND NATURE

We must try to bring the threads of our discussion together and examine the important implications dialectic has for ecological

thinking. A "dialectical view of life" is a special form of process philosophy. Its emphasis is not on change alone but on development. It is eductive rather than merely deductive, mediated rather than merely processual, and cumulative rather than merely continuous. Its objectivity begins with the existence of the potential, not with the mere facticity of the real; hence its ethics seeks the "what-should-be" as a realm of *objective* possibilities. That "possibilities" are objective, albeit not in the sense of a simplistic materialism, is dialectically justified by the perception that potentiality and its latent possibilities form an existential continuum that constitutes the authentic world of truth—the world of the "what-should-be," not simply the world of the "what-is," with all its incompleteness and falsehood.

From a dialectical viewpoint, a change in a given level of biotic, communal, or for that matter, social organization consists not simply of the appearance of a new, possibly more complex ensemble of "feedback loops." Rather, it consists of qualitatively new attributes, interrelationships, and degrees of subjectivity that express and radically condition the emergence of a new potentiality, opening up a new realm of possibility with its own unique tendency—not a greater or lesser number of "fluctuations" and "rhythms." Moreover, this new potentiality is itself the result of other actualizations of potentialities that, taken together historically and cumulatively, constitute a developmental continuum—not a bullet "shot from a pistol" that explodes into Being without a history of its own or a continuum of which it is part.<sup>25</sup>

Dialectical logic is an immanent logic of process—an *ontological* logic, not only a logic of concepts, categories, and symbols. This logic is emergent, in the sense that one speaks of the "logic of events." Considered in terms of its emphasis on dif-

ferentiation, this logic is provocatively concrete in its relationship to abstract generalizations—hence Hegel's seemingly paradoxical expression "concrete universal." Dialectic thereby overcomes Plato's dualistic separation of exemplary ideas from the phenomenal world of imperfect "copies"—hence its ethical thrust is literally structured, cumulatively as well as sequentially, in the concrete. Emerging from this superb ensemble is a world that is always ethically problematical but also an ethics that is always objective, a recognition of selfhood and subjectivity that embodies nonhuman and human nature, and a development from metabolic self-maintenance to rational self-direction and innovation that locates the origins of reason *within* nature, not in a supramundane domain *apart* from nature. The social is thus wedded to the natural, and human reason is wedded to nonhuman subjectivity through processes that are richly mediated and graded in a shared continuum of development. This ecological interpretation of dialectic not only overcomes dualism but moves through differentiation away from reductionism.

Ecology cleanses the remarkable heritage of European organicism thought of the hard teleological predeterminations it acquired from Greek theology, the Platonistic denigration of physicality, and the Christian preoccupation with human inwardness as "soul" and a reverence for God. Only ecology can ventilate the dialectic as an orientation toward the objective world by rendering it coextensive with natural evolution, a possibility that arose in the last century with the appearance of evolutionary theory.

As such, an ecological dialectic is not solely a way of thinking organically; it can be a source of *meaning* to natural

evolution—of *ethical* meaning, not only rational meaning. To state this idea more provocatively: we cannot hope to find humanity's "place in nature" without knowing how it *emerged* from nature, with all its problems and possibilities. An ecological dialectic produces a creative paradox: second nature in an ecological society would be the actualization of first nature's potentiality to achieve mind and truth. Human intellection in an ecological society would thus "fold back" upon the evolutionary continuum that exists in first nature. In this sense—and in this sense alone—second nature would thus become first nature rendered self-reflexive, a thinking nature that would know itself and could guide its own evolution, not an unthinking nature that "sought its own balance" through the "dynamics" of "fluctuations" and "feedback" that cause needless pain, suffering, and death. Although thought, society, and culture would retain their integrity, they would consciously express the abiding tendency within first nature to press itself toward the level of conscious self-directiveness.

In a very real sense, an ecological society would be a *transcendence of both first nature and second nature* into a new domain of a "free nature," a nature that in a truly rational humanity reached the level of conceptual thought—in short, a nature that would willfully and thoughtfully cope with conflict, contingency, waste, and compulsion. In this new synthesis, where first and second nature are melded into a free, rational, and ethical nature, neither first nor second would lose its specificity and integrity. Humanity, far from diminishing the integrity of nature, would add the dimension of freedom, reason, and ethics to it and raise evolution to a level of self-reflexivity that has always been latent in the emergence of the natural world.

To deny the potentiality for this transcendence and synthesis of first and second nature into a free nature is to leave ecological thinking open to all the wayward "if-then" propositions that threaten to overrun and brutalize it. Commonsense "brainstorms," throwing ideas into the air with a prayer that mere probability will provide us with a meaningful pattern, would replace reflection and intellectual exploration.

Today, the results of this desystematized thinking are often ludicrous when they are not simply cruel or even vicious. If all organisms in the biosphere are "intrinsically" equally "worthy" of a "right" to "self-realization," as many biocentrists believe, then human beings have no right, *given the full logic of this proposition*, to try to stamp out mosquitoes that carry malaria and yellow fever. Nor does the logic of this proposition give humanity the right to eliminate the AIDS virus or other organic sources of deadly illness.<sup>26</sup> It hardly helps that Bill Devall and George Sessions, the coauthors of *Deep Ecology*, hedged "biocentric equality" with the qualifier that "we have no right to destroy other living beings without sufficient reason."<sup>27</sup> A loophole like "sufficient reason" is ambiguous enough to divest the entire phrase of its logical integrity. Logic, in fact, gives way to a purely relativistic ethics. What Devall and Sessions consider "insufficient reason" to take a life may be very sufficient to many other people whose well-being, indeed whose very survival under the present "system" depends on it. In this kind of argumentation, which divests ethics of its social basis and second nature of its derivation from first nature, "centricity" bifurcates into two opposing bodies of values: a biocentrism that makes humans and viruses equal "citizens" in a "biospheric democracy," and an anthropocentrism that makes humans into

self-centered sovereigns in what is presumably a biospheric tyranny. That both views are in error is a central point in this work. In any case, "deep ecology," taken at its word, leads us into a foggy and dangerous logical realm from which there is usually no recourse but Eastern mysticism.<sup>28</sup>

There is no "biospheric democracy"—or "tyranny," for that matter—in nature other than what human second nature imputes to nonhuman first nature, just as there is no hierarchy, domination, class structure, or state in the natural world—only what the socially conditioned human mind projects onto nonhuman biological relationships.

"Rights," in any meaningful sense of the word, are the product of custom, tradition, institutional development, and social relationships, of an increasingly self-conscious historical experience, and of *mind*—that is, conceptual thought that painstakingly formulates a constellation of rights and duties that makes for an empathetic respect for individuals and collectivities. They emerge from the human *social* sphere and from ways in which human communities *institutionalize* themselves. Leopards claim no "rights" for themselves and certainly recognize no "right" to life, much less to "self-realization," in the animals on which they prey.

As mammals, these predators may be more self-aware than, say, frogs, because of their more complex neurological and sensory apparatus. Hence, they may be more subjective, even more rational in a dim way. But their range of conceptualization, from everything we know, is so limited, often so immediately focused on their own survival needs, that to impute ethical judgments involving "rights" to them is to be truly anthropomorphic, often without even knowing so. When biocentrists, anti-

humanists, and "deep ecologists" flagellate us with claims that life-forms have "rights" to life and "self-realization" that we, as humans, fail to recognize, they unknowingly participate in a hidden anthropomorphism that we bring to many forms of life. They work from within human ideas and feelings—indeed, the best that constitutes humanism—to incarnate "rights" and the notion of a "biospheric democracy" in first nature. A human empathy and sense of identification that yield a profound respect and sensitivity for the nonhuman world should not be confused with sophisticated ethical "rights" and a "democracy" that have moral and political meaning—that is, unless we are prepared to undermine the authentic social content of "rights" and "democracy" for human society and intellection. Ironically, if there is to be anything that approximates a "biospheric democracy" in the nonhuman world, it will be shaped by human empathy, which *presupposes* the rational and ecological intervention of human beings into the natural world. This would entail the infusion of human values into nature, and human mind into nonhuman subjectivity.<sup>29</sup>

Biocentrists and antihumanists can hardly have their cake and eat it too. Either humanity is a distinctive moral agent in the biosphere, that can practice an ecological stewardship of nature—or else it is "one" with the whole world of life and simply dissolves into it. If the latter is true, then human beings have a "biospheric right" to use the biosphere exclusively to suit their own ends, a "right" that cannot be denied any more than the leopard's "right" to kill and feast on its prey, albeit less "efficiently" than human beings. At this point, antihumanists may change the whole level of the argument by replying that the despoliation of the earth by plundering "humans" (whoever they may be) will

ultimately boomerang on the human species. But this turns their argument into a pragmatic problem of a purely instrumental character, reduces a problem in morality to a problem in engineering new technological fixes and the deployment of mere human cunning. Nature thus reverts to a Darwinian jungle that is morally neutral at best or engaged in a duel between human cunning and animal mindlessness at worst.

On the other hand, if we understand that human beings are indeed moral agents because natural evolution confers upon them a clear responsibility toward the natural world, we cannot emphasize their unique attributes too strongly. For it is this unique ability to think conceptually and feel a deep empathy for the world of life that makes it possible for humanity to reverse the devastation it has inflicted on the biosphere and create a rational society. This implies not only that humanity, once it came into its own humanity as the actualization of its potentialities, *could* be a rational expression of nature's creativity and fecundity, but that human intervention into natural processes *could* be as creative as natural evolution itself.

This evolutionary and dialectical viewpoint, which derives the human species from nature as the embodiment of nature's own thrust toward self-reflexivity, changes the entire argument around competing "rights" between human and nonhuman life-forms into an exploration of the *ways* in which human beings intervene into the biosphere. Whether humanity recognizes that an ecological society would be the fulfillment of a major tendency in natural evolution, or remains blind to its own humanity as a moral and ecological agent in nature, becomes a *social* problem that requires a *social* ecology. The self-effacing quietism and "spirituality" so rampant today afflict a sizable, highly privileged sector of Euro-

American society—human types so consumed by a "love" of nature and life that they may well ignore the needless but very real suffering and pain that exist in nature and society alike.

## NOTES

1. This essay was originally published in *Our Generation*, vol. 18, no. 2 (Spring-Summer 1987). It has been revised for publication here.
  2. This basically Marxian thesis, which all members of the Frankfurt School took for granted, is repeatedly misinterpreted, particularly in the ecology movement, when it is discussed at all. However much they opposed domination, neither Adorno nor Horkheimer singled out hierarchy as an underlying problematic in their writings. Indeed, their residual Marxian premises led to a historical fatalism that saw any liberatory enterprise (beyond art, perhaps) as hopelessly tainted by the need to dominate nature and consequently "man." This position stands completely at odds with my own view that the notion—and no more than an *unrealizable* notion—of dominating nature stems from the domination of human by human. This is not a semantic difference in accounting for the origins of domination. Like Marx, the Frankfurt School saw nature as a "domineering" force over humanity that human guile—and class rule—had to exorcise before a classless society was possible. The Frankfurt School, no less than Marxism, placed the onus for domination primarily on the demanding forces of nature.
- My own writings radically reverse this very traditional view of the relationship between society and nature. I argue that the idea of dominating nature first arose within *society* as part of its institutionalization into gerontocracies that placed the young in varying degrees of servitude to the old and in patriarchies that placed women in varying degrees of servitude to men—not in any endeavor to "control" nature or natural forces. Various modes of social institutionalization, not modes of organizing human labor (so crucial to Marx), were the first sources of domination, which is not to deny Marx's thesis that class society was economically exploitative. Hence, domination can be definitively removed only by resolving problematics that have their origins in hierarchy and status, not in class and the technological control of nature alone.
3. Leon E. Stover, *The Cultural Ecology of Chinese Civilization* (New York: Pica Press, 1974).
  4. It is a compelling commentary on their naïveté that Westerners can so readily ignore oriental despotism in favor of a romantic reverence for Asian "sages." Chinese elites perfected an exquisitely cruel ethos toward the masses, whom they not only exploited physically but degraded spiritually. That this peasantry quietly bent its head to the yoke does not speak well for Chinese "sages." The Tao Te Ching is an eminent-

- ly political collection of passages. From the viewpoint of social ecology—which pointedly studies the *social* origins of a nature ideology and explores its logic—the passivity toward nature that the Tao Te Ching fostered could easily have been transposed into society, just as nature philosophy in the West has served social elites in the worst of cases, and rebels in the best. In any case, in 1989 Chinese students exhibited more interest in Western than Eastern ideals: they invoked ideals more redolent of the French Revolution than the Tao Te Ching by taking to the streets with demands for democracy and human rights.
5. Fritjof Capra, *The Turning Point* (New York: Simon and Schuster, 1982), pp. 286-87.
  6. *Ibid.*, pp. 287, 412.
  7. *Ibid.*, p. 288.
  8. *Ibid.*
  9. See Ilya Prigogine and Isabelle Stengers, *Order Out of Chaos* (New York: Bantam Books, 1984), pp. 291-310. The notion of the irreversibility of time, appropriate as it may be for Prigogine to emphasize it in order to exorcise a mechanistic dynamics based on time's reversibility, is not congruent with process and evolution; it is merely one presupposition of these phenomena.
  10. That such cosmic formulas cannot explain the foundations of either organic or social development is not an argument against "foundationalism"—that is, the view that there are explanations that can account for differentiae in the biological and social as well as the inorganic physical world. Our world has more coherence than many relativists today are willing to admit, with its different levels of unfolding and, in their scope, different foundations, degrees of possibility, subjectivity and, with humanity, reason.
  11. Capra, *Turning Point*, p. 288.
  12. *Ibid.*, pp. 300, 393.
  13. Gregory Bateson, *Mind and Nature* (New York: E.P. Dutton, 1979), p. 31.
  14. For a more complete discussion of nature's fecundity and its source in species variety, see my "Freedom and Necessity in Nature," elsewhere in this book.
  15. Human self-hatred, I may add, is not a psychological phenomenon alone; it has ugly social roots. The privileged hate not other privileged but the underprivileged, generally accusing them of "anthropocentric" vices and subjecting them to the constraints of "natural law."
  16. David Foreman, interviewed by Bill Devall, "A Spanner in the Woods," *Simply Living*, vol. 12 (c. 1986).

17. Let me make it clear that I believe that nature is neither hierarchical nor egalitarian—concepts that are meaningless unless they are institutionalized socially, which presupposes a *human* presence in the biosphere, or second nature. What we encounter in first nature is *complementarity*, the mutualistic interaction of life-forms in maintaining a nonhuman ecological community. At this biological level, complementarity is not an ethics—which is associated with reasoned behavior—but a descriptive datum related to mutualism. I used the word *complementarity* to denote an ethics in *The Ecology of Freedom*. Since that book was published, “natural law” devotees have picked up on it with minimal acknowledgment and turned it into a “law of complementarity”—a regressive use of the concept if there ever was one.
18. I am not speaking about “dialectical materialism,” which, whatever the intentions of Marx and Engels, used Hegelian terms and concepts to formulate what was little more than a scientistic “dialectical” mechanism. My purpose is not to flesh out the skeleton of dialectical philosophy with “materialism” or a latter-day nominalist physicality, but to bring nature into the foreground of dialectical thought in an evolutionary and organismic way.
19. G.R.G. Mure, *Aristotle* (New York: Oxford University Press, 1964), p. 7.
20. It is arguable whether Hegel saw teleology as an inflexible predetermination of the development of the “real” in its beginnings. Hegel’s *Logic* exists on a different level from the existential reality we experience in history and everyday life. Its “purified” categories are developed from each other with a “logical necessity” and, in a metaphoric sense, could be seen as a rational level parallel to the existential level from which they are abstracted. This *logos*, as it were, could be taken as an exemplary and thus inherently critical vision of the world in a highly subjectivized form whose “logic” yields a distinct rational conclusion, just as Plato’s domain of forms has been regarded by many Platonists as exemplary in a *normative* sense, as distinguished from the flawed world that we experience around us.
21. Responsibility for the confusion about the meaning of the words *real* and *actual* is by no means Hegel’s but rather that of some of his translators. The German word *wirklich* has a family of English meanings that include “real” as well as “actual.” Hegel was quite scrupulous in distinguishing the “real” from the “actual” in his *Science of Logic*, where “reality,” as he put it in his discussion of “Determinate Being,” seems “to be an ambiguous word,” while “Actuality is the unity of Essence and Existence.” See the Johnston and Struthers translation, *Science of Logic* (New York: Macmillan, 1929), vol. 1, p. 124, and vol. 2, p. 160. The problem arose when Hegel’s famous maxim, *Was vernünftig ist, das ist wirklich; und was wirklich ist, das ist vernünftig*, was mistranslated as “What is rational is real, and what is real is rational.” The correct and philosophically meaningful translation is “What is rational is actual, and what is actual is rational.” The mistranslation, which rendered *real* and *actual* synonyms, conceived the Hegelian *real* as the actualization of the potential. The mischief this mistranslation produced in the interpretation of Hegel’s ideas is matched only by the confusion it produced in the interpretation of the maxim itself. Engels, ironically, clarified Hegel’s meaning wonderfully—albeit using *real* rather than *actual*. See his *Ludwig Feuerbach and the End of German Philosophy*, in Marx and Engels, *Selected Works* (Moscow: Progress Publishers, 1970), vol. 3, pp. 337–38. I am not nitpicking here: the odium that Hegelian philosophy acquired as an apologia for the Prussian state rests in no small part on the failure to properly interpret—and translate—this famous maxim in Hegel’s *Encyclopedia Logic* and *Philosophy of Right*.
22. G.W.F. Hegel, *Lectures on the History of Philosophy* (New York: Humanities Press, 1955), vol. 1, p. 22 (my emphasis). Here Hegel is describing the dialectic in unknowing nature. “In Mind it is otherwise,” he is quick to add; “it is consciousness and therefore it is free, uniting in itself the beginning and the end—that is to say, intention, striving, and predetermination” (p. 22). In fact, from my viewpoint the conclusion that “Mind” is “free” could also mean that knowing beings can be wayward, idiosyncratic and one-sided, and—unlike nonhuman beings—cruel and, put bluntly, evil.
23. Unfortunately, this has not been noticed in most commentaries on Hegel’s oeuvre, much less in philosophy generally, which seems more occupied with establishing what Heidegger means by “Being” than with other concepts of Being in Western thought.
24. “What-could-be,” insofar as it involves organic subjectivity and flexibility, derives from the natural realm of potentiality. “What-should-be,” the unfolding of the rational, is an ethical extrapolation of individual and social potentialities, of attributes of the truly self-determining person and society.
25. Viewed from this standpoint, there is a sense in which Hegel’s “objective idealism” was more objective than his materialist critics realized. Possibilities—that is, the actualizations of existential potentialities—are as objective as the inherence of an oak tree in an acorn. Ethically, this highly illuminating approach establishes a standard of fulfillment—an objective good, as it were—that literally informs the existential with a goal of objective fulfillment, just as we say in everyday life that an individual who does not “live up” to his or her capabilities is an “unfulfilled” person and, in a sense, a less than “real” person.

26. Antihumanist "ethicists" actually take this argument seriously, I have been startled to learn. In biocentric ethics, reports Bernard Dixon, no "logical line can be drawn" between the conservation of whales, gentians, and flamingoes on the one hand and the conservation of pathogenic microbes like the smallpox virus on the other, which, according to one antihumanist wag (David Ehrenfeld), is "an endangered species." Logical consistency requires that we try to rescue the smallpox virus with the same ethical dedication that we bring to the survival of whales. See Bernard Dixon, "Smallpox—Imminent Extinction, and an Unresolved Problem," *New Scientist*, vol. 69 (1976). For an antihumanist position that verges on sheer misanthropy, see David Ehrenfeld, *The Arrogance of Humanism* (New York: Oxford University Press, 1978).
27. Bill Devall and George Sessions, *Deep Ecology* (Salt Lake City: Peregrine Smith Books, 1985), p. 67.
28. Or else by regarding the human condition with ugly indifference. Misanthropy, indeed an *inhumanity*, labeled biocentrism, "deep ecology," or population control, could provide a brutal mandate for human suffering and authoritarian state control. Ecology, on these terms, threatens to become an ideology that is cruel, not sharing or cooperative.
29. The more one examines the literature of biocentrists, antihumanists, and "deep ecologists," the more one senses manipulation. Their appeals to human feelings like empathy and identification are translated into "rights" that rest heavily on the historical development of humanism. Humanism involves not simply a claim to humanity's "superiority" over the nonhuman world but, significantly, an appeal to human reason and a social ethics of cooperation. Great social movements, uprisings, and ideologies, not to speak of self-sacrificing individuals, were committed to the achievement of these monumental goals—a history that is simply effaced from much of the biocentrist, antihumanist, and "deep ecology" literature. Often, their place is taken by a nagging denigration of the human spirit, decorated with metaphors lifted from Eastern philosophy. Social analysis tends to be minimized and even deflected by a privileged and inward concern with abstractions like "interconnectedness" and "oneness"—in a society riven by genuine conflicts between rich and poor, privileged and denied, and man and woman, not to speak of "deep," "deeper," and the "deepest" ecologists.

## HISTORY, CIVILIZATION, AND PROGRESS *Outline for a Criticism of Modern Relativism*

### I

Rarely have the concepts that literally define the best of Western culture—its notions of a meaningful History, a universal Civilization, and the possibility of Progress—been called so radically into question as they are today. In recent decades, both in the United States and abroad, the academy and a subculture of self-styled postmodernist intellectuals have nourished an entirely new ensemble of cultural conventions that stem from a corrosive social,