The contemporary, post-1960s ecological vision began as an extension of the progressive political vision. The broad, popular environmental movement was born in the 1960s—at an intensely political moment in American history. The same capitalist-military-industrial machine that was bombing Hanoi and the Ho Chi Minh trail, searching and destroying South Vietnam—with Black and white working-class American youth as the cannon fodder—was also defoliating Southeast Asian rain forests, building nuclear power plants as well as nuclear weapons at home, and mining and polluting North American soils and waters. Progressive political and ecological movements coalesced in response.

The intellectual sources of both the progressive political and ecological visions are deeply ethical. The lasting appeal of Marx rests on his moral outrage at the human misery and gross social injustice produced by the Industrial Revolution. John Muir, Aldo Leopold, and Rachel Carson were equally outraged by the heartrending destruction of nature brought about by the same historical phenomenon.

The ethical vision and critique of capitalism shared by these two movements have a common root. Both progressive political and ecological movements find individual meaning within community—human society and its several classes on the one hand, and the “biotic community” and its several species on the other.

Their emphasis on the whole, not the individual, sets both ecological and progressive political visionaries apart from the classical liberal tradi-
tion, which has so shaped Western political and economic thought. Liberalism, from the days of Thomas Hobbes, John Locke, and Adam Smith, places ontological and axiological emphasis on individuals. The liberal tradition proposes an “atomistic” world in which individual appetite is the inertial momentum of each social atom. Each person is imagined to have an inner life or consciousness and to maintain only “external” relations with other similarly insular egos. The liberal vision imagines, further, that an orderly society will shake out of the random collisions of self-seeking individuals or social atoms, as if designed by an “invisible hand.”

Traditional liberals attack the left for subordinating the interests and autonomy of individuals to the interests and authority of the social whole, which they see as a spectral menace, threatening the inherent worth, rights, and “freedom” of individuals. Political movements and postcapitalist societies based on Marxist conceptions of class and social organization have indeed typically overemphasized the social whole to the detriment of the individual—and thereby ultimately also to the detriment of the working class, society, or whatever social aggregate has been taken as preeminent. We recognize that ecological holism too often involves inappropriate subordination of the individual to the biota. Yet the individualism of classical liberalism provides no satisfactory basis for social organization either.

Consider, for example, the central problem of individual freedom so dear to the liberal, and to us as well. The progressive political and ecological notions of freedom contrast dramatically with the liberal notion, classically expressed at midcentury by Isaiah Berlin (Two Concepts of Liberty, 1958): “The essence of the notion of liberty . . . is the holding off of something or someone—of others, who trespass on my field or assert their authority over me—intruders or despots of one kind or another.” In the liberal’s world where we social atoms bounce about in limited space, freedom is merely what’s left over after others have established their turf—“my freedom ends where your nose begins.”

The progressive political and the ecological vision, however, share a concept of freedom different from this literal liberal notion of elbowroom. Both share a more positive and systemic understanding of freedom and responsibility. The political progressive sees the multitudinous ways in which an economic and political structure can indirectly limit or enhance freedom. How many choices do the jobless have when unemployment rates are high? They ask. Freedom cannot flourish unless it is understood to be an emergent property of structures ensuring open-ended process.

Similarly, the ecological vision is determined to refrain from degenerative excesses within the liberal view. Rather it is concerned with safeguarding the biotic composition of the habitat.

Such common ground between ecological and progressivist views bears contribution insights into both the individual and community.

The ecological vision recasts conceptions of individual freedom. It calls attention to the productive potential of the study of the dynamics and composition of the inorganic environment and the organismic sense of the term “ecosystem,” with life-forms related and interacting. Individual species adapt to a niche, a unique combination in the “ecological pyramid” of climate, rainfall and hours of sunlight, predators and prey, and habitat (including biotic and abiotic forms and species not necessarily excepted). For example, the terrestrial ecosystem’s digestive track are to be found in ants, termites, ice, fish, marine mammals.

A species is thus surrounded by a completely unique and changing configuration of relationships. From this perspective, the multiplicity of strands in a community is entwined and related to its context.

When one views the community as an emergent whole, with individual parts related to each other, freedom is understood as an emergent condition as well.

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is understood to include active responsibility for developing social structures ensuring opportunity to all.

Similarly, the ecological visionary, understanding our systemic links to the entire natural world, expands our responsibility. Our task is not just to refrain from directly harming nature ourselves—an extension of the liberal view. Rather, we should strive to be active “stewards,” responsibly safeguarding the well-being of the biosphere.

Such common values open up, we believe, the possibility that the ecological and progressive political movements can reinforce each other and contribute insights concerning the relation and proper balance between individual and community.

The ecological vision offers a reinterpretation of the fundamental concepts of individuality and society which can give new life, meaning, and appeal to the progressive political tradition. Ecological science focuses attention on relationships. Indeed, the textbook definition of ecology is the study of the relationships of organisms to one another and to the inorganic environment. Ecology stresses symbiosis in the most general sense of the term. Ecology reveals that organisms are not only mutually related and interdependent; they are also mutually defining. In general, species adapt to a “niche” in the biotic community, to a role or profession in the “economy of nature.” The fluctuations of temperature and rainfall and hours of daylight and darkness, the peculiarities of predators and prey, and hundreds of other variables all sculpt the outward and inward forms and structures of Earth’s myriad species (*Homo sapiens* not excepted). For example, the polar bear lives in the extremely cold Arctic climate. Its size, intelligence, stealth, white fur, swimming skills, and digestive tract are all adaptations to its predatory life way in a world of ice, fish, marine mammals, and frigid sea water.

A species is thus “internally related” to its habitat. That is, its completely unique and identifying characteristics are determined by its network of relationships. It is what it is because of where and how it lives. From an ecological point of view, a species is the intersection of a multiplicity of strands in the web of life. It is not only located in its context or related to its context; it is literally constituted by its context.

When one views the human microcosm through the lens of ecology, a new picture of the relationship of individuals to society snaps into focus. The individual is no longer simply an elemental unit with society taken as either an emergent or an artificial abstraction. Rather, the social whole
appears as the organic and enduring matrix that gives form and substance to individual human lives.

From this point of view the modern classical picture of a “state of nature” as drawn by Thomas Hobbes, in which fully formed human beings once lived as solitaries in a condition he described as a “war of each against all,” is patently absurd. Not only is it impossible to imagine human beings to have evolved in the absence of an intensely social environment; it is impossible to conceive of a fully formed human “person” apart from a social milieu.

Rather, a person’s individuality is constituted by the peculiar concatenation of relationships the person bears to family, friends, neighbors, colleagues, and coworkers. As the polar bear, from an ecological point of view, is internally related to its environment—possessed of its distinctive characteristics by virtue of coevolution with other species within its biotic community—so a person is properly also defined by his or her unique social relationships and interactions.

Compared with the modern monadic paradigm, such a conception of personal identity is more authentic and more involving. We are free to be our social roles instead of feeling that they are external to our essential selves and therefore phony or artificial. Our understanding of human happiness can shift from material accumulation and self-indulgence, as the basis of human definition, toward community involvement and social participation.

Since we are ultimately interdependent, from the perspective of a social ecology, it is wrong to pit individual welfare against individual welfare in a zero-sum game. And it becomes equally ridiculous to think in terms of tradeoffs between social integrity and the individual’s unfettered pursuit of happiness. The health and integrity of the social whole is literally essential to a socially constituted individual’s well-being. Active involvement in a multiplicity of interactions not only enriches and enhances an individual’s personal life; it more closely knits together the fibers of the social fabric considered as a whole. Individual welfare and happiness and socially responsible activity thus become one and the same thing. Acknowledging such a vision of individuality, drawn from ecology, would free the progressive political vision both from the destructive social atomism of classic liberalism and the equally chilling reification of class interests long associated with the left.

Once the ecological paradigm—interdependent, synergistic, dynamic—is applied to human society, we can understand freedom differently.
Within the liberal tradition, freedom is a self-possessed and individual characteristic. But if individuality is realized in large part through relationships, then how can freedom be conceived independently of these connections? It cannot. Historically, both visions have been saddled with seemingly burdensome restrictions—social and ecological, respectively—on individual freedom. Now, however, these “restrictions” reappear as opportunities for personal expansion and enhancement.

For example, the responsibility not to pollute or otherwise degrade the environment—a limitation on freedom of action from the reductive point of view—becomes something very like the opportunity to brush one’s teeth or put on fresh clothes: activity one can look forward to doing. Similarly, the responsibility to restructure social rules so as to end poverty—a seemingly impossible burden—in the doing becomes, on the contrary, an incredible weight lifted from our shoulders.

Imagine walking through any neighborhood of any city in our country and basking in the vibrant street life with no fear of assault—either psychic or physical—by human misery and deprivation. Or, from the opposite approach, imagine the total deflection of your own energy were you to be handed a pink slip tomorrow with no hope for reemployment. Such positive and negative images may help us grasp the magnitude of the human potential stolen from us by endemic poverty—and thus the incredible potential to be released by its eradication.

More positively still, by letting go of a zero-sum concept of freedom we can see the obvious—that creative human endeavors mutually enhance rather than compete with one another. Each expression inspires, challenges, and provokes the expression of others in an ever changing cultural dynamic.

Consider an example of human activity that immediately involves people in both economic and ecological networks: agriculture. Based on their integrative visions, the movements we have described challenge capitalist agriculture, characterized by large-scale monoculture and the intensive use of energy, chemical inputs, and wage labor. Gone also are the days when political progressives were enamored of the large state-owned or collective model of agricultural organization, efficiently employing the latest technology to free peasants from the land. Thus, both communities have awakened to the problems inherent in the industrial agricultural mode, whether U.S. or U.S.S.R.

The ecologically sensitized focus particularly on how industrial agriculture necessarily exploits soil and water resources; the politically sen-
sitized focus on how industrial agriculture exploits people, dispossessing peasant producers or family farmers and taking advantage of wage workers. The politically motivated see in large landholdings in the Third World a most grotesque example of such exploitation—peasants starving while good land grows luxury export crops that enrich only a few. Thus both the ecological and the political agree on the need for reform, for distributing control of the land among the majority.

Specifically, three essentials of capitalism undermine a benign agricultural ecology.

First is the market system's glaring omission: it simply cannot provide the information needed if we are to protect the land and the people who farm it. The only information the market offers is price. Yet prices—to which all producers in a capitalist market must respond in order to stay in business—do not incorporate the true resource or human costs of production. Prices of farm commodities do not inform us that their production entails the erosion of topsoil, for example—that now on one-third of U.S. farmland, topsoil is being eroded faster than nature can rebuild it. Neither is the reduction of groundwater reserves registered in the market price. Because the market omits such critical information, it deludes us. What nature makes, we come to see as "free." The market price cannot incorporate the price to be paid by later generations for whom providing food will be more difficult on land with impoverished topsoil and depleted groundwater.

Like the prices of farm commodities, prices of farm inputs—fertilizers, pesticides, machinery—also send farmers false signals. They too fail to incorporate long-term costs or consequences. Following the market's cues, farmers will purchase manufactured inputs as long as they can estimate (hope) that market prices for their crops will be high enough to cover the input costs, plus turn a profit this year. The market cannot warn the farmer that the choice of inputs this year may be generating a dependency that will threaten the farmer's very survival on the farm when the prices of these inputs double—as a result of economic forces perhaps unrelated to agriculture altogether. Nor can the market signal health risks from exposure to pesticides, for example.

Most simply put, farming choices guided exclusively or even centrally by the market will be ecologically destructive because the market is blind to costs that cannot be quantified. It assumes no cost to nature's supplies—topsoil, natural fertility, groundwater. It assumes less than the real cost of inputs—pesticides, herbicides, fossil fuels, and fertilizers.

And it "externalizes" ecological degradation.

Second, within the market, food is a manufactured commodity to be bought and sold in the normal commerce. Good farmland, in most cases, is bought and sold as an investment.

As a speculative commodity, farmland is often removed from the body of land in the human relations on the land, from the ownership. Farming becomes a speculation in agriculture.

Third, in the market economy, the farmer is employed by absentee landlords buying large tracts of farmland, with workers selling their labor to the landlord. The process is far advanced in the U.S., for most of the workers do not live on a farm.

But agroecology is precisely that ecology just as much as its absence. An agroecology is necessary in the development of the farmer. As part of the social relations of their labor, the farmer will be the rare exception.

Thus agroecology means farmers to the land. The market is unnecessary information in the welfare of the worker. Agroecology required being agroeco- logical. It means mere commodification. The main and less will be the rare exception.

Agroecology and sustainable cultures. The market is an inefficient apparatus for the distribution of food. And land and labor are the necessary aspects of sustaining cultures. Integrating the...
And it “externalizes” such costs as environmental pollution and ecological degradation.

Second, within the market system, farmland—like washing machines or waffle irons—is in one sense merely another commodity to be bought and sold in the marketplace. But because the supply of land, especially good farmland, is limited, it is also a speculative commodity. People buy it as an investment.

As a speculative commodity, farmland thus acquires a value dissociated from the body of knowledge and skills that are the product of generations on the land. Wealth, not land wisdom, becomes the criterion for ownership. Farmland ownership becomes disconnected from the culture of agriculture.

Third, in the market economy, labor is a commodity as well. And as farmland becomes increasingly the domain of the wealthy, with absentee landlords buying up acreage, more and more farm work is done by workers selling their labor to landowners. In the Third World this process is far advanced. And now, for the first time in American history, most of the work on American farms is done by those who themselves do not live on a farm.

But agriculture dependent upon hired labor belies the vision of agroecology just as much as does heavy use of petrochemical inputs. Agroecology is necessarily knowledge-intensive, dependent on all the faculties of the farmer. As agroecology replaces simple monocropping with a mix of crops and animals, farmers must understand the many subtle interrelations of their chosen mix in order to enrich the soil and minimize pest damage.

Thus agroecology depends upon a specific kind of relationship of the farmer to the land. It must be enduring, for only over time can the necessary information be acquired. And the farmer must feel a personal stake in the welfare of the land in order to call forth not just the physical exertion required but the mental alertness needed to observe and record subtle changes and interactions over decades. Where land and labor remain mere commodities, such a relationship of the farmer to the land will be the rare exception.

Agroecology and capitalist economic rules, then, are in direct conflict. The market is an insufficient and often even misleading guide to land use. And land and labor treated as commodities dissociate agriculture from its sustaining culture.

Integrating the principles of genuine democracy and economic jus-
tice into our economic decision-making will allow us effectively to tame the market—without throwing it out altogether. Only by unflinchingly addressing capitalism’s essential rules will true agroecology be possible.

Ecologically destructive practices continuing today in “revolutionary” noncapitalist societies might seem to put the lie to what we have just said. They do not. The mistakes of noncapitalist society, often inherited from the dominant practice of capitalist society itself, do not alleviate the weaknesses of capitalism. But such sad developments do demonstrate that challenging the dictates of the market, however necessary, is not a sufficient step to effect the transition from industrial agriculture to agroecology. Values, attitudes, and specific policies must change, too, as the ecological voices so eloquently remind us. Our point here, however, is that to realize their vision agroecologists cannot retreat from the more controversial, emotionally charged arena of debate on economic structure beyond the strictly agronomic questions.

In sum, advanced capitalist society poses a mortal threat to individuals and to the social and natural ecology of the planet. Whether our concern is for the individual in society or for entire species, for human society or for the global environment, we are led to grapple with the dynamic codetermination of individual and whole. The lessons of ecology are in many ways relevant to social organization. Our understanding of how we as individuals are shaped in social and economic contexts, and in turn create those contexts, allows us to push beyond individualism to a more fully human society. It allows us to become more truly respectful of the individuals in it, as well as to appreciate the social and natural structures upon which we all depend and for which we are all responsible.