

Draft

Social Ecology-Towards an Ecological Humanism Daniel Chodorkoff, Ph.D

Social Ecology begins in an exploration of the past in order to gain an epistemological understanding of how humanity understands, and thus constitutes, nature. This is a question of vital importance, not merely an exercise in philosophical abstraction. The way we conceptualize nature and people's place in nature has become a highly contentious issue in ecological thought and environmental philosophy. The conclusions that we draw inform our ethics and the political decisions that are shaping the world.

How can we derive such an epistemology? We must understand that the process of biological evolution constitutes nature; nature is evolutionary, not a static entity. The evolutionary record, natural history, is the reality of nature. In biological terms nature is both being and becoming, from the molecular level to the biospheric level, nature is in a process of constant flux and change; birth, death, mutation, even extinction are all part of a process which creates the complex web of life, of which humanity is a part. Evolution is nature.

Humanity must be placed within the evolutionary matrix and recognized as playing a unique role in that matrix by virtue of our capacity for both creative and destructive interaction with the rest of nature. As a species we have the ability to affect other species, ecosystems, and in fact the biosphere itself, in a profound fashion which finds no parallel in any other species. This makes us both an integral part of "nature", a product of the same evolutionary forces that created all other species, past and present on the planet, and at the same time distinct, if not in kind, certainly in degree, in our ability to affect nature. Social Ecology begins with recognition of this fact and compels us to make a distinction between what we term first nature, nature evolving according to processes not affected by our species, homo sapien sapien; and nature determined by human consciousness and action, a second nature.

In first nature a primary mode of evolution is natural selection, adaptation; species change or mutate over time in order to adapt to the environment in which they find themselves, thus conferring an evolutionary advantage. To an unprecedented degree, and with a rapidity seen no where else in nature, humanity adapts the environment to meet its needs, and cultural evolution, a process which can transform the conditions of a society in less than a generation, at some point emerges out of, though it does not replace, biological evolution. Humanity remakes itself constantly through processes of tool making (technology), institution building, explanation, (religion, philosophy, and science), and art. Second nature is best characterized by the emergence of consciousness, and self consciousness.. As humanity advances our understanding of the evolutionary process, of physics, genetics, and other arenas of science our species is becoming, to use

Fichte's phrase, "nature rendered self-conscious", nature aware of itself and consciously influencing its own development.

If we acknowledge the reality of a second nature, produced by human creativity and artifice, as distinct from first nature, we must also acknowledge that it grows directly out of first nature, or biological evolution. Thus, logically, first nature contained within itself, from its very inception, the potential for second nature. The evolutionary record, natural history, must be read as a process in which nothing essential is lost. Second nature still contains within it first nature; complex forms of mammalian life begin as single cells and organize into more complex cellular forms (organs) contained within still more complex assemblages of cells (organisms). The ph. of the ancient oceans in which life first began is replicated in the amniotic fluid that supports life in the womb of complex mammals, like human beings. In a certain sense the conception, gestation, and birth of an individual person roughly replicates the process of biological evolution. Our species is both first nature and second nature.

When we view the evolutionary record over the whole of biological development we see a movement toward ever great degrees of complexity of life forms, diversity of life forms, and potentiality for consciousness and self-consciousness. This is not to say that there is a linear, unbroken ascent toward human consciousness; evolution is full of fits and starts, florescence and decline, even extinction. But it is undeniable that life on earth evolved from unconscious, single celled organisms, to biologically complex forms of life with the capacity to think abstractly and to reason. Does this fact confer upon humanity the "crown of creation", the right to dominate the rest of nature and view first nature as mere resource? Or does it require us to understand ourselves as a part of nature with the potential to play a destructive role, or a creative and sustaining role? Does this understanding not bring with it the responsibility to critically examine the existing relationship between first and second nature, particularly in light of the insights offered by the science of ecology, and to create an ethics and politics that can ensure a re-harmonization of first and second nature to stem the tide of destruction resulting from our current ethics and politics, which threaten the integrity of both first nature and second nature?

Social Ecology suggests that we need to look at first nature itself to gain insight into the principles that inform natural history, and insure eco-system health. Such an examination must draw on the best scientific understanding and interpretation we can muster, but must also recognize that such a project is not purely empirical. The history of interpretation of "the laws of nature" is fraught with highly subjective, politically charged moments. In the 19th century Social Darwinists like Herbert Spencer, twisted Darwin's ideas to provide a rationale for British colonialism and imperialism. More recently Hitler justified his views by drawing on the "immutable laws of nature." In light of these traditions, rather than claim immutability or absolute authority, social ecology utilizes the best existing science to identify tendencies or principles at work in evolutionary processes and ecosystem dynamics, and acknowledges that these tendencies may be mutable, and do not exhaust the whole range of processes at work in first nature. They do seem, however, to represent important tendencies that relate directly to the project of

re-harmonizing first and second nature, a project that takes on some urgency given the current threats facing the planet. We must also recognize, as with any theory based on science, as new scientific insights emerge, the theory will require modification.

An ethics that has a goal to re-harmonize first and second nature must be oriented toward encouraging ever greater complexity, diversity, and higher degrees of consciousness. It must have this orientation in relation to both first and second nature, striving to protect and create ecosystems which offer a multiplicity of trophic levels to support biologically diverse species in a set of complex interactions, and do so in a highly self-conscious fashion.

The same principles must be applied in the realm of second nature. If our goal is an ecological society our ethics must ensure complex, diverse societies and cultures that encourage ever greater degrees of consciousness and self consciousness, characterized by respect, participation, equity, and scientific understanding. The pursuit of ever greater degrees of complexity, diversity and freedom (consciousness and choice) is a necessary condition for both healthy ecosystems and healthy societies, and a pre-condition for the re-harmonization of first and second nature.

A related principle that must be recognized in first nature and applied in human societies in order to achieve a healthy relationship between the two is the function of unity in diversity. The health, strength, and stability of an ecosystem are in direct relation to the diversity of species that interact within the system. Eco-systems with the highest degree of bio-diversity, like rain forests, or estuaries, are able to sustain themselves for thousands of years. Large numbers of species fill every available niche, every trophic level, giving the system as a whole the ability to compensate for even vast fluctuations in the population of any particular species, allowing it to maintain its overall stability (not to be confused with stasis, because eco-systems are in continual flux and change) and integrity.

An application of this principle is an ethical imperative in second nature, where lack of unity and intolerance of diversity pose a threat not only to individual cultures and societies, but to the biosphere as a whole. The results of second nature's unwillingness to embrace this principle has led to social and ecological disaster alike; warfare, genocide, and racism in second nature, and the wholesale destruction of ecosystems, extinction of species, global climate change, and a frightening diminution of bio-diversity in first nature. The two are inextricably linked, and Social Ecology demands a recognition and implementation of the principle of unity in diversity as a corrective to the destruction that has already been wrought.

When the science of ecology began its study of ecosystems the tendency was to view systemic relations in hierarchical terms; a central concept in understanding ecosystem dynamics was that of the food chain, a rigid hierarchy of dependencies in which the large carnivores were placed at the top. As our scientific understanding has increased this crude model has been replaced by a more sophisticated and accurate description that defines the complex interrelationships at work in an ecosystem as a food web, a network

of relationships which is essentially non-hierarchical and is based on interdependencies, the linking together of all species in a mutually supportive whole. This has led to recognition that first nature is organized non-hierarchically.

The hierarchies that we establish between species in first nature, the lion as “king of beasts”, or the “lowly ant”, are really a projection of human hierarchies. In a technical sense a hierarchy is defined as an institutionalized system of command and control which ultimately has recourse to physical coercion in order to compel obedience. No such systems exist in first nature. The lion does not command and control any other species, nor do lions institutionalize their relationships. Even the seemingly dominant role that an individual lion (always a female) may play within a pride of lions is better understood as a form of situational dominance than an institutionalized hierarchy.

Hierarchy vitiates the mutualistic web of relationships crucial to ecosystem stability, and even survival. The cycles of birth, death, and decay that link all of first nature, and second nature, despite an undeniable role played by inter, and intra-species competition for evolutionary advantage, are, in terms of eco-system dynamics, perhaps best characterized as rooted in the principle of mutualism; each species plays a critical role in the health and development of the other. This is true even in predator/ prey relationships where each species is mutually dependent; predator species depend on prey for survival, and the prey is dependent on the predator for maintaining healthy population levels. The mutualistic relationships at work in an eco-system become more complex in direct proportion to the bio-diversity of the system.

Evolution is, above all, the realm of potentiality. Every life form contains within it a set of possibilities, both biological and behavioral. These potentialities and the striving to actualize them are what drive life forward. The degree to which this process is conscious is a major factor in natural history, and one way that we can begin to differentiate first nature from second nature. This is not to suggest a radical disjuncture between first and second nature, first nature is always present in second nature, but we can see a gradual emergence of consciousness, self-consciousness and striving to fulfill inherent potentialities characterizing the emergence of culture. If mutualism is to serve as a natural tendency that informs human ethics, it must be rooted in this understanding of potentiality; it must be a part of the continuum of behaviors that make us human. The fact that it has found such wide expression throughout the whole of human history offers convincing evidence that it is a principle that we must incorporate into an ethical framework that will allow us to re-harmonize first and second nature.

Where the popular conception is of an immutable human nature that has always been based on greed, competition, warfare, conquest, domination, and acquisition, the anthropological record offers a counterpoint, and forces us to reject, as anthropologists have, such a narrow view of “human nature”, and to replace it with the much broader concept of a continuum of potential human behaviors which, while undeniably including the potentiality for greed, competition, warfare, etc., also includes the potentiality for caring, sharing, nurturance, mutualism, and non-hierarchical relationships. This framework provides a real basis for believing that, homo sapien sapien, our species, has

the potentiality to create an ecological society. Since these ecological behaviors have been identified as central in other forms of human society, primarily those not rooted in capitalist industrial production, and in evolution nothing is truly lost, they represent a potentiality for the future. Which is not to suggest that our species could, or would want to, return to hunting and gathering. There can be no return. Rather these forms of behavior represent principles. We must apply human creativity and invention to apply these principles in ways appropriate to modern life.

Cultures and societies have always reinforced and rewarded particular forms of behavior and devalued others. Through the processes of socialization and formal education our society has chosen to reinforce and reward patterns of ecologically destructive relationships and behavior, and further, to reify them into “human nature”. An awareness of the other potentialities embodied in our humanity gives hope that a transformation of those patterns, though by no means guaranteed or pre-ordained, may occur. Social Ecology argues that such a transformation must occur, if we are to resolve the ecological crises that threaten our existence and truly achieve our potential to become “nature rendered self-conscious”, thus re-harmonizing first and second nature.

A transformation of this magnitude requires a radical approach- a new, ecological epistemology, an ethics rooted in principles derived from first nature, and a politics and social praxis willing to examine basic assumptions- a bold new vision and program. It requires a radical approach in the original sense of the word radical, defined as root. We must be willing to undertake a searching examination of the roots of the ecological crisis, using the ethical principles that we derive from our epistemology of nature. Such an examination leads us from the realm of traditional environmentalism, still rooted in a dualistic epistemology that views “nature” as a collection of natural resources, to a social ecology that holds the promise of re-harmonizing first and second nature.

This recognition calls for solutions that go far beyond the “band aid” approach advocated by most environmentalists. It requires that we try to resolve the social crises which are the underlying cause of our various environmental crises. It suggests that healthy ecosystems, and a healthy relationship between first and second nature can only result from an ecological society, and that an ecological society must be an ethical society, rooted in the ethical principles that we derive from our understanding of first nature itself.

The ecological crisis demands more than a change in consciousness. Though such a change is necessary, in and of itself, it is not sufficient. We must also begin to undertake action informed by a consciousness rooted in a social ecology. The process of ecological reconstruction will not be an easy one. It will require shifts in thinking, and social organization, as well as the use of new, ecologically sound technologies and techniques. We must begin the process of ecological reconstruction by preserving existing ecosystems to insure their integrity and to draw upon them as reservoirs of biodiversity. We must insure that no more species are lost. It is also crucial to engage in ecological restoration, to the extent that we are able, restoring damaged ecosystems to their previous state. This in turn suggests that we need to explore and implement new,

ecological models for development, a community-based process, which both meets human needs and respects and restores eco-systems. There is a critical reconstructive dimension that must be fully articulated and applied within the ethical framework presented by first nature.

This reconstructive project is a crucial element in the development of a social ecology; it is not enough to philosophize, we must act. However our action must be informed by ethics and scientific understanding. Mindless, or insufficiently considered action has the potential to make our problems worse, not better. The ends that we seek; societies moving toward ever greater complexity, diversity, and freedom, organized non-hierarchically and mutualistic in their orientation, creating unity through diversity, both homeostatic and spontaneous, and self-conscious about their role in relation to first nature, can only be brought about by social movements that reflect and embody those same principles. Ends and means must be congruent.

Action in the world rooted in Social Ecology demands broad participation and democracy-unity and diversity-many different voices creating a whole. Local communities are already challenging the hegemony of the irrational culture of destruction all around the world. The struggles of indigenous farmers in Mexico fighting to save their rainforests, peasants in Nepal trying to prevent the damming of wild rivers, and poor, black communities in Louisiana trying to close down toxic chemical plants are all part of the same movement. So too are urban homesteaders in devastated Detroit neighborhoods reclaiming abandoned buildings, and youth groups growing organic vegetables on vacant lots in New York City. They stand together with the millions around the world who protest the domination of the world economy by a handful of giant corporations.

These combinations of protest and reconstructive action are only fledgling steps in what must become a larger and broader movement, but they are promising nonetheless. They point the way toward new organizational models that embody the ecological ethics necessary to achieve a re-harmonization of first and second nature. They are diverse, decentralized, non-hierarchical, and directly democratic, and represent a new model for social action that can begin to counter the destructive path of the dominant culture.

A perspective informed by Social Ecology must also address the future, and must do so in a manner that draws on the ethical principles derived from first nature. It is insufficient to extrapolate the present into the future, as futurists and systems theorist do. Instead any discussion of the future, if it is to be ecological, must be rooted in the concept of potentiality, an understanding of what could be. Evolution itself is a process of unfolding potentiality on a biological level, of organisms either fulfilling their potential for growth, development, and reproduction, or failing to do so. Potentiality should not be equated with inevitability; many factors influence whether potentiality is actualized or not. Social Ecology examines the future by trying to tease out potentialities for ecological restoration, and a re-harmonization of first and second nature, and then works to actualize those potentialities.

By doing so Social Ecology draws on one of the great traditions of humanity, utopian thinking. The utopian project is based on an understanding of the possibilities inherent (though unrealized) in the present. An important distinction must be made between the utopian and the utopistic; utopian thought is rooted in real, existing potentiality, it must be based in scientific and rational thinking. The utopistic however can be an expression of pure fantasy; it is not bound by physics or biology. A conflation of these two distinct modes of thought has been used to discredit the utopian, to the point where the word is now used as a dismissive or pejorative term.

During the Renaissance and the Enlightenment utopia emerged as one of the most important forms of both social criticism, and speculation about possible new forms of social organization. Sir Thomas Moore, Erasmus, Campanella, Rousseau, and many others used utopian thinking to explore the far shores of human possibilities; to inspire people to transcend the limitations of their severely limited societies. Utopian thinking offers more than inspiration however; it also represents a way of orienting our actions. Without a vision of the type of society we desire, it will be impossible to ever achieve it. The Renaissance and Enlightenment utopias usually took the form of literary fantasies; their details may delight us, or horrify us, but underlying these often idiosyncratic interpretations of the good life, are important social principles. At its most profound level, utopian thought is concerned with such principles, and in a modern, ecological context, must leave the details of how those principles (rooted in a scientific understanding of ecosystems), will be applied to democratically developed plans at the local level. A city like Burlington, humanely scaled, politically progressive, and situated in a relatively healthy ecosystem, is in a position to undertake such an exercise; a utopian planning process that can incorporate the principles of Social Ecology.

Social Ecology examines the future from this perspective, and recognizes the real, existing potentiality for an ecological society. Utilizing modern scientific insights and technics we have the potential to solve the world's ecological problems; to create and utilize non-polluting, renewable sources of energy; to reverse the process of global climate change; to restore damaged ecosystems in the rainforest and the ocean; to end pollution and clean up toxic wastes; to insure continued biodiversity, and to provide a healthy diet for the world's population. All of these are possible today, utilizing existing technologies.

Our society is the first in the history of the planet to have post-scarcity potential. We have the technical and scientific capacity to meet the needs of all humanity for food, shelter, and energy. What we lack is the social vision, and the social will to do so. Hierarchical concentrations of wealth and power have led to a catastrophic imbalance in the distribution of wealth around the planet. The United Nations Development Program reported in 1998 that the world's 358 Billionaires had assets equal to those of the poorest 45% of the world's population. That means that 358 individuals had as much wealth as 3 billion people. And the gap between rich and poor has been steadily increasing in the eleven years since the report was issued. Just as the Enlightenment led to a restructuring of society that shook the foundations of the old social order, a new Enlightenment rooted

in a social ecology must do the same. We are painfully aware of the limitations and many problematic aspects of the original enlightenment, and I am not arguing that we replicate the content, but rather that the original enlightenment represents a process from which we must learn. The project of the original Enlightenment began with a set of ideas that offered a radical critique of what was, and a transcendent vision of what could be, and what should be, rooted in a new ethical framework. A similar process is urgently needed today if the potentiality for an ecological society is to ever be realized. To fail to do so is to abandon our humanity and to head into an era of unprecedented ecological devastation.