

“A Round Table: Environmental History,” *Journal of American History* 76.4 (March 1990), 1087-1147

Donald Worster, “Transformations of the Earth: Toward an Agroecological Perspective in History,”

1. the evolution of the field of environmental history

In 1949, Aldo Leopold called for an “ecological interpretation of history,” by which he meant using the ideas and research of the emerging field of ecology to help explain why the past developed the way it did. It has taken a while for historians to heed his advice, but at last the field of environmental history has begun to take shape.

Environmental history (most practitioners prefer that label, over ecological history, as more inclusive in method and material) rejects the common assumptions 1) that human experience has been exempt from natural constraints, 2) that people are a separate and uniquely special species, 3) that the ecological consequences of our past deeds can be ignored. The traditional disregard for the impact of human beings on this planet suggested that they were not and are not truly part of the planet. Environmental historians realize that scholarship can no longer be so naïve.

The field of environmental history began to take shape in the 1970s, as conferences on the global predicament were assembling and popular environmentalist movements were gathering momentum in response to the questions people were asking: How many humans can the biosphere support without collapsing under the impact of their pollution and consumption?

KEY: Environmental history was born out of a strong moral concern and may still have some political reform commitments behind it, but as it has matured, it has become an intellectual enterprise that has neither any simple, nor any single, moral or political agenda to promote. Its goal is to deepen our understanding of how humans have been affected by their natural environment through time, and conversely and perhaps more importantly in view of the present global predicament, how they have affected that environment and with what results.

Thus, environmental history deals with the role and place of nature in human life. It studies all the interactions that societies in the past have had with the nonhuman world – the world we have not in any primary sense created.

2. There are three levels on which environmental history (or “the new history”) proceeds, each drawing on a range of other disciplines and requiring special methods of analysis. Note: according to Cronon, Worster seeks to define a new historical field in a way that makes it central (rather than peripheral) to the discipline as a whole.

- 1) the *discovery of the structure and distribution of natural environments of the past*. Although nature, like society, has a story of change to tell, there are few written records to reveal most of the story, so historians must turn for help to a wide array of the natural sciences, relying on their methodologies, sources and evidence. [Cronon: *nature* ]
- 2) the *interaction of productive technology and environment* (the intermixing of tools, work and social relations). Historians have begun to turn to the extensive literature dealing with the concept of “modes of production,” emphasizing that those modes have been engaged not merely in organizing human labor and machinery but also in transforming nature. They focus on how technology has structured human ecological relations, and the various ways people have tried to make nature over into a system that produces resources for their consumption. In that process of transforming the earth, people have also restructured themselves and their social relations (e.g., who has gained and who has lost power as modes of production have changed). [Cronon: *political economy*]
- 3) the *more intangible, purely mental type of encounter in which perceptions, ideologies, ethics, laws, and myths have become part of an individual’s or group’s dialogue with nature*. People are continually constructing cognitive maps of the world around them, defining what a resource is, determining which sorts of behavior may be environmentally degrading and ought to be prohibited, and generally choosing the ends to which nature is put. [Cronon: *belief*]

3. his proposal about the (near) future of the field

The great challenge in *the new history* does not lie in merely identifying such levels of inquiry, but in deciding how and where to make connections among them. e.g., do the lines of historical causality

run from the first, the level of nature [materialist determinism] through technology, and on to ideology, as a strict environmental determinist would insist? or do the lines run in the opposite direction, so that nature itself is finally nothing more than the product of human contrivance or desire [idealist determinism].

NOTE: According to Worster, what has been neglected, or left conceptually underdeveloped, is the second level of inquiry: the analysis of modes of production as ecological phenomena, particularly as they are articulated in agriculture. And he devotes the rest of his essay to reviewing the broader themes and identifying areas where more research is needed. In particular, he argues:

1. if an environmental historian begins by adopting the scientist's concept of the *ecosystem* (about which there is no longer any consensus on how it functions *or* how resilient it is), then the historian is caught in the middle of a scientific revisionist swing. If an ecosystem is a subset of the global economy of nature, how can we best proceed from the ecosystem concept to understand the human past more completely?
2. An *agroecosystem* is an ecosystem reorganized for agricultural purposes – a domesticated ecosystem. KEY: according to Ester Boserup, a Danish economist, population pressure has always been the key force behind land-use intensification, compelling groups to cultivate crops in the first place, and then, as the pressure continues, to work harder and harder at the task, developing new skills as they go along and organizing themselves into larger work units.

Unquestionably, all agriculture has brought revolutionary changes to the planet's ecosystem. The landscapes that resulted from such traditional practices were carefully integrated, functional mosaics that retained much of the wisdom of nature. Traditional agroecosystems were based on a predominantly subsistence strategy in which most people raised what they consumed. And subsistence-oriented agroecosystems, despite making major changes in nature, nonetheless preserved much of its diversity and complexity. That achievement was a source of social stability, generation following generation.

3. So it was, until the modern era and the rise of the capitalist mode of production, when the structure and dynamics of agroecosystems began to change radically. We have not yet researched just how and where ecological factors may have played a causative role in the great transformation. e.g., did the old medieval peasant life break down because it was degrading the environment, or was the new mode of production forced on peasants who had been living in equilibrium with their environment and were reluctant to change?

NOTE: by "capitalist mode of production," he means something more than the Marxist focus on the restructuring of human relations, and the buying of labor as a commodity in the marketplace. The capitalist era in production introduced a new, distinctive relation of people to the natural world: the reorganization of nature, not merely of society. A distinction must be made between markets and the market system or economy. Capitalism created for the first time in history a general market in land; land became "commodified."

Q: what happened to the world of nature, once it had been reduced to the abstraction "land"? The capitalist agroecosystem shows one clear tendency over the span of modern history: a movement toward the radical simplification of the natural ecological order in the number of species found in an area and the intricacy of their interconnections. In monoculture (commercial agriculture), a part of nature has been reconstituted to the point that it yields a single species, which is growing on the land only because somewhere there is a strong market demand for it....

Neither ecology nor history, nor the two working together can reveal unequivocally whether modern capitalist land use has been a success or a failure. But they can make the point that scholars ought to address the issue.

*Responses:* (focus on the responses of two other premier scholars in the field

Richard White: "Environmental History, Ecology, and Meaning"

NOTE: begins by explaining that, over the last 15 years, Donald Worster has been the most thoughtful and stimulating of American environmental historians. His concern with big problems, the clarity of his thought and prose, and his grasp of the field make him the ideal choice for explaining the fallacy of writing history as if human beings "have not been and are not truly of the planet."

Yet, in selecting the transformative capacity of capitalism as his central theme, while Worster isolates a process of undeniable importance and power, the theme also serves to simplify environmental analysis much as capitalist agriculture has simplified farmers' fields.

The failure to recognize the role of value judgments and beliefs causes problems on two levels. It distorts European expansion and the spread of capitalist agriculture by portraying the success of those developments as simply the triumph of more efficient instrumental logics over less efficient and more primitive instrumental logics. [On a more theoretical level, it calls into question how much reciprocal influence (as opposed to simple determinisms) there actually is within the complex Marxist framework of base/structure/superstructure].

William Cronon: "Modes of Prophecy and Production: Placing Nature in History"

Environmental historians perform a delicate interdisciplinary balancing act. Like ecologists, they are committed to the proposition that the natural world has an autonomous place in history. And yet, unlike most ecologists, they share with other historians the belief that nature can only exist in time, that the particulars of historical environmental change are no less important than the timeless abstractions of ecological processes.

Asks: will Worster's proposed solution – agroecological mode-of-production analysis – yield the results he hopes? [NOTE: Worster and Cronon both seek a more rigorous foundation for what they believe to be a critically important approach to history (1131).]

The three levels of analysis – nature, political economy, and belief, have been the chief fascinations of environmental historians' work, and our greatest challenge has been to figure out how best to integrate the three. To date we have met with only mixed success. Studies that do a good job at the materialist end of the spectrum, linking ecosystems and economies, often are less successful at integrating belief systems into their arguments and vice versa.

I therefore resist Worster's claim that "the gathering strength of the human imagination over nature is so obvious and dramatic that it is in no danger of being neglected by historians." Quite the contrary, it is precisely this third level of analysis that has generally stood apart in the best environmental histories. We have either had studies of ecology and economy, or studies of ideas of nature; too rarely have we had the three together.

Thus one of my chief reservations about Worster's proposed research agenda is its potentially excessive materialism. The elements of the agroecosystem he stresses in this essay are for the most part material. They thus encourage the bias *against* integrating ideology with political economy and environment that has been a continuing problem for environmental history. [Worster is attracted to mode-of-production analysis because it appears to help us understand nature, economy, and society in an integrated fashion. But I cannot find in mode of production itself any clear advice about how we are to discover the integration we seek.]

*Proposes:*

More useful would be a tool kit of analytical approaches that would help us locate in a given historical situation the critical linkages between people and the ecosystems they inhabit. Rather than start with the system as a whole, as mode of production would have us do, we should start (like modern ecologists) with relationships.

If I were to point to the greatest weakness of environmental history as it has developed thus far, I would criticize its failure to probe below the level of the group to explore the implications of social divisions for environmental change – e.g., the different roles of slaves and masters and poor whites in reshaping the regional landscape [1129].

We need to develop a rigorous inquiry into how we define, analyze, and evaluate the many connections between people and nature. Relationship more than system should be our starting point. The exploration of social and environmental difference, and of its relation to power, needs to find a more prominent place in our work. So too do all landscapes in which power and difference express themselves. Environmental history continues to have too strong a bias toward the wild and the rural, when in fact the field's intellectual commitment to discovering environmental connections ought to leave no corner of the planet untouched by its scholarship.

Those who see in Worster's essay an invitation to help with bridges to our colleagues in other fields of history and to the allied disciplines that share our fascination for investigating the human place in nature, and an invitation to join the task of reconstructing historical scholarship so as to relocate the human story within the natural world, have read him exactly aright. By examining the human place on earth and understanding the many ways in which people and planet have reshaped each other, we can hope to write a new story not merely about the past but about the present and future as well. Just so do history and prophecy meet.