

The Human Role in Environmental History

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Human Impact on Ancient Environments

Charles L. Redman

University of Arizona Press, Tucson, 1999. 255 pp. \$45. ISBN 0-8165-1962-5. Paper, \$22.95. ISBN 0-8165-1963-3.

On Earth Day 1970, no one could have predicted the tortuous turns to be taken by scientific research and popular sentiment in environmental issues. The groundswell of support for environmental legislation during the 1970s has been replaced by a gridlock among polarized groups. Many more environmental scientists are now being trained, but the label “environmental science” is also being appropriated by mundane policy programs. Other individuals and groups seek to convert environmental issues into jealously guarded niches, relying more and more on self-citation and publicity stunts to keep themselves in business. When scholars in English departments can heap indignation on Spaniards for their alleged despoliation of the New World, environmental history risks losing its anchor in pragmatic data to postmodern discourse.

There is indeed a problem when an educated public is confused by the dissonance—for example, when pronouncements on global change are increasingly met with cynicism. In the long run, it is fortunate that researchers are stepping back from simple models and striving to replace naïve assumptions with attention to an increasing range of feedback processes. But our quandary is also about communication. In the past as in the present, key problems will have been identified and addressed through human cognition, perception, and decision-making. We need less stereotyping and more community-based studies of environmental behavior, by cultural ecologists as well as historians. And we should pay more attention to the environmental successes and failures encoded in the settlement and land-use histories to which archaeologists are privy. Integrating all these perspectives into an informative coherent whole is a challenge because each step of a multidisciplinary argument must be carefully explained for an audience with a diversity of backgrounds. The sooner we all understand that misconceptions and dissonance are a normal part of learning to deal with crises of any nature, the easier it will be to maintain harmony between the academy and the public.

In *Human Impact on Ancient Environments*, Charles Redman makes a serious effort to address the issues and key themes of environmental history and its human dimensions. The author is a professor of anthropology and director of the Center for Environmental Studies at Arizona State University. Through three introductory chapters, he offers pointers that deserve attention. For example, environmental deterioration through human action is not just a recent phenomenon but has ancient precedents. Natural environments, productive strategies, and social institutions have co-evolved over many millennia. Archaeology, in conjunction with interdisciplinary efforts from the biological and Earth sciences, can provide rich empirical data and fruitful models to examine changing subsistence strategies, demographic patterns, and environmental transformation. Case studies of land-use change, such as the degradation of Easter Island, help convey how such variables may be interlinked with social organization.

As Redman demonstrates, the strands of “Western” thinking about the environment, beginning with Genesis and the classical authors, are complex, even contradictory. They do not support a dichotomy of Western versus non-Western attitudes. Nature and culture are interlocking components of a single system. People convert natural phenomena into cultural objects and reinterpret them with cultural ideas. As a result,

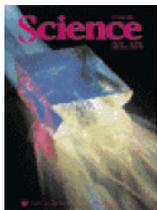
take into account the hidden costs of ecological impacts. Environmental preservation and regulation impact different socioeconomic groups or segments of the interdependent global economy differently and even unfairly.

Following this overview of behavioral concepts, Redman devotes the core of the book to a range of primarily archaeological case studies. Three chapters discuss animal extinctions and habitat destruction, the environmental anchoring and implications of early agropastoralism, and the intensification of land use and environmental pressures that result from urbanization. A fourth chapter examines “forces that grew with society” and considers the Danish economist Ester Boserup's hypothesis of the relation between demographic growth and labor investment, as tempered by heightened disease loads and malnutrition, within increasingly complex societies. In the concluding chapter, Redman skillfully picks up some of the initial themes to link past and present and to offer thoughtful suggestions for contemporary environmental strategies.

The primary value of this small book is its breadth. Even where it skips from one idea to another with only light documentation, the reader is forced to reflect. This provides a salutary mental workout that brings a new awareness of historical ecology. Redman's presentation is engaging and rarely categorical; he frequently lets the reader choose among alternative interpretations.

My research and teaching fall within much the same agenda; however, I see some matters differently. A number of the case studies include speculative interpretations that are based on reified anthropological assumptions or that project dubious social consequences. I accept that such scenarios are stimulating, but they are poor models for an integrative science. In my take, pastoral systems can be either ecologically beneficial or maladaptive. Given its time depth, Mediterranean agriculture was far less destructive than Redman suggests, particularly when one focuses on watersheds rather than narrow site perimeters. Population growth creates environmental pressures, but does not necessarily accelerate environmental damage. Bursts of disequilibrium seem to become less common in later prehistory, which suggests that regional conservationist experience is cumulative. Soil erosion more typically peaked during times of depopulation and rural abandonment, a sign that insecurity was a major factor in opting for short-term, survivalist strategies. And although the degradation of isolated island ecosystems has proven heuristic value, it is unrepresentative of larger terrestrial systems that have much greater resilience.

Despite such examples of disagreement, I recommend Redman's book as a welcome eye-opener. *Human Impact on Ancient Environments* should be required reading for undergraduates of any persuasion and will interest anyone who is concerned about the environmental problems that confront us today.



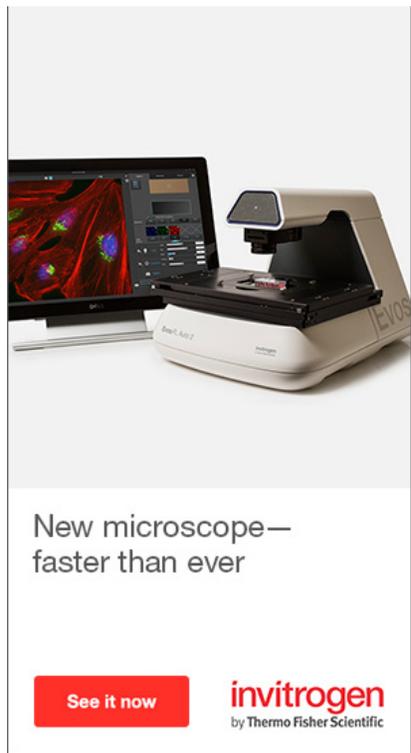
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