

Advances in Historical Ecology. William Balée, Editor. Columbia University Press, New York. 1998. \$65 (hardcover). Pp. xvi, 429. Maps, figs., index. ISBN 0-231-10632-7.

Understanding the mutual relations between social processes and environmental change in space and time is now a central concern among researchers across disciplines. Approaches vary, however, and often reflect disciplinary labels such as historical geography, environmental history, landscape ecology, and now historical ecology. Edited by William Balée, *Advances in Historical Ecology* provides a timely introduction to an emerging research agenda.

Thirteen of the book's 17 contributors, exclusive of Carole Crumley's Forward, initially presented their chapters at a 1994 conference on historical ecology hosted by Tulane University and the Columbia University's Graduate Anthropology Association. Fourteen of the 17 contributors are anthropologists, and 9 of the 17 chapters focus on indigenous peoples in Amazonia. The notion of landscape, conceptualized here as the holistic interface and the material artifact of human-environmental interactions, provides a fundamental unit of analysis and unites many of the articles.

In his introduction, Balée declares that historical ecology is not a methodology but an attempt to span the artificial dichotomy separating culture from nature, the social from the natural sciences. Four postulates underscore the approach. First, the non-human biosphere is affected by human activities. It follows that what we often call the 'natural environment' has been subjected to progressive human management and, in effect, has become landscape: "that is, culturally and historically determined physical environments" (p.16). Second, human activity does not necessarily lead to environmental degradation. Third, different societies in particular regional contexts have dissimilar affects on the biosphere. And finally, human "communities and cultures together with the landscapes and regions with which they interact over time can be understood as total phenomena," and therefore "amenable to regional analysis using the paradigmatic concepts and tools of historical ecology" (p.24).

While these premises are increasingly embraced by historical-ecological researchers, Balée's notion of landscape as contingent nature diverges in many respects from cultural geographers who tend to view landscape as a particular image of reality that achieves its cultural meaning through lived experiences and social processes which reproduce or contest that meaning. If our definition of landscape includes built landscapes, as it must, then we also need to pay attention to, and ideally theorize, how landscapes constitute and reflect the cultural and social values that created them over time and space. Neil Whitehead—the book's lone dissenting voice to the historical ecology approach—shares my concern about the use of landscape in this way, but for different reasons. Whitehead insists that "human decision-making, and the consciousness that drives it," should be the independent variable in the analysis of human-environmental dynamics (p.36). According to Whitehead, since historical anthropology already examines all structures of human activity, historical ecology represents a mixed metaphor that does not present something new.

The Amazonianist contributors explicitly integrate their research into an historical ecology approach. In his chapter, Darrell Posey uses his work among the Kayapó Indians of Brazil to contest the consciousness of conservation. Like Balée, Posey argues that "indigenous peoples" carry out everyday, common sense, and unconscious acts of conservation that increase their environment's biodiversity. Such evidence, Posey argues, has been grossly ignored by conservationists. In an excellent essay, Anna Roosevelt demonstrates that current subsistence patterns among Amazonian foragers reflect historical circumstances associated with the European conquest. Roosevelt argues that human evolution is not a linear affair and that we need to rethink the ecology of "hominization" (p.207). Laura Rival, in another stellar chapter, demonstrates that historical ecology is social history plus biocultural dynamics. Rival details how the Huarani Indians of Ecuador have made political choices and practical engagements with their environment in ways that they have created 'cultural forests' and 'wild gardens.' In his chapter, Ted Gragson applies a landscape ecology analysis to the Manxuj Indians of west-central Paraguay. Focusing on systemic relations between people and their environment, Gragson argues that the Manxuj organize their landscape horizontally and vertically on the basis of socially and geographically contingent beliefs about the world. Working with the Piaroa Indians of Venezuela, Stanford Zent shows that their dispersed and mobile settlement pattern reflects a spatial adaptation to a poor resource environment that is sparsely populated. R. Brian Ferguson analyzes Yanomami subsistence in the 18th and 19th centuries in cases of no-axes, stone axes, and steel axes. He finds that prehistoric subsistence did not reflect a single pattern, but combined with hunting and gathering with short visits to small gardens, and also regular trekking with longer stays at larger gardens. Examining mission activity on the upper Rio Negro of Brazil from 1680 to 1980, Janet Chernela, uses a cultural-environmental analysis to show that elites maintained the missions for political reasons long after their economic viability had waned. Concentrating on indigenous peoples in the tropical lowlands, the Amazonianist anthropologists demonstrate the need to consider historical contingencies when examining human-environmental relations and biogeography, in addition to concepts such as biodiversity, conservation, and nature.

This book's remaining eight chapters are more diverse in topic, scope, and region, and in some respects do not mesh well with their Amazonian counterparts. In her chapter, Linda Newson examines the history of epidemics by exploring the interrelationships among parasites, human hosts, and their environments. She shows that the interaction of these three variables will produce different effects in time and space. Stephen Pyne convincingly shows that anthropogenic fire has produced a wholesale modification of the biosphere. Reversing the stereotypical image of *Homo devastans*, Pyne shows that human use of fire has strengthened rather than depleted biodiversity. For Pyne, images of pristine nature are best thought of as human artifacts associated with the "hominid revolution" (p.70). Elizabeth Graham uses her soil work in Belize to show that the Belizean landscape has been extensively molded by the activities of pre-Columbian peoples. Tristram Kidders's archaeological work in the Mississippi Delta region shows that prehistoric peoples were a dynamic part of their environment, and that their activities show impor-

tant landscape effects to this day. Robert Bettinger traces the history of approaches to the late prehistoric Numic-speaker displacement in the Great Basin region of the American West. Elinor Melville uses her work in Central Mexico to show that Otomí adoption of pastoralism as a parallel system of resource exploitation allowed them to adopt livestock raising while maintaining traditional agricultural practices, and hence their distinct identity. Carol Henderson shows that the cattle boom in the northwest Indian state of Rajasthan between 1951-1991 reflects institutional changes associated with the shifting costs and benefits related to resource access. In the final chapter, Leslie Sponsel finds that John Bennett's concept of the ecological transition "describes and explains to some extent the historical ecology of Thailand" (p.395). With mixed results, these works attempt to expand the historical ecology approach of the Amazonianists to other times, themes, places, and scales.

Advances in Historical Ecology provides a stimulating overview to its topic and demonstrates that the culture-nature dichotomy is indeed arbitrary and dangerously misleading. However, if we seek a genuinely inter-disciplinary approach to society-nature dynamics in time and space, scholars from across disciplines will need to explicitly engage one another and clearly state how their research advances a common theme. For the next historical ecology collection, I recommend that the anthropologists invite the historians, geographers, and landscape ecologists to the conference, not just solicit a sample of their research after the fact.

Karl H. Offen
Department of Geography
University of Texas
Austin, TX 78712