## H-Net Reviews in the Humanities & Social Sciences

Robert E. Henshaw, ed. Environmental History of the Hudson River: Human Uses That Changed the Ecology, Ecology That Changed Human Uses. Albany: State University of New York Press, 2011. 431 pp. \$29.95 (paper), ISBN 978-1-4384-4026-2; \$90.00 (cloth), ISBN 978-1-4384-4027-9.

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For a river as important as the Hudson with such a long and rich history, it is amazing that the scholarship is so thin. There are several popular histories available and some specialized books, but no thoroughly documented, comprehensive study. The environmental history of the Hudson River and its tributaries has been particularly neglected. Several good scientific works have been published dealing with a range of issues related to the local flora and fauna, ecology and ecosystems, hydrology, land uses, and so forth. There are a plethora of works on the mid-nineteenth-century Hudson River School of Art. There are a handful of guidebooks. And there is Robert Boyle's *The Hudson River: A Natural and Unnatural History*, published in 1979, which is essentially a personal perspective on the environment that he knows and loves.

*Environmental History of the Hudson River* intends to help fill a major gap in the literature and is a welcome addition. The collection of essays in the book grew out of a conference sponsored by the Hudson River Environmental Society. The authors, according to Hudson historian Frances F. Dunwell, are "people who have worked in the trenches, bringing a depth of personal experience, scientific knowledge, and historical perspective that shines a light on our understanding of the river and its people" (p. xi). There is little doubt about the authors' personal commitment to the Hudson River or the enthusiasm for their task. However, the volume suffers from two limitations. First, like many books that begin as conference proceedings, this one is uneven in quality, depth of research, and topical coverage. I sympathize with the task of the editor in seeking out authors who demonstrate the needed expertise and whose work blends together to tell a comprehensive story of the topic. Almost every book of this kind can be faulted for the same shortcomings. However, given that reality, the editor must bear responsibility for providing introductions, conclusions, and transitional material to effectively connect the diverse pieces he or she have available. Robert E. Henshaw's efforts fall short in this respect. The introduction is short and, while giving a glimpse of what is to come, does not sufficiently place the included essays in a broad context or otherwise fill the gaps among them with at least some general observations.

The section introductions for all four parts of the book are also too brief and do not effectively tie together the chapters. The decision to include a brief chapter after the formal introduction and before part 1, which outlines the Hudson River's geography, hydrology, biology, demography, and industry, is a good and necessary step. However, the chapter is not sufficiently thorough befitting the importance and complexity of the subject, and it is awash with technical terminology, mostly left unexplained.

A second problem with the volume is the paucity of historians actually involved in the writing and conceptualizing of this book. After all, the volume is an environmental history, a field that has become quite mature in the last several years. Among the thirty-nine authors, only one identifies himself as a historian, and his slim chapter deals with commerce and transportation. Environmental history is inherently interdisciplinary, and the inclusion in Environmental History of the Hudson River of individuals whose interests are as diverse as ecology, anthropology, biology, environmental science, archeology, law, geography, and government enhances the breadth of the topics included. This diversity is essential in dealing with the complexity of such a broad environmental study. But the omission of historians with an understanding of historical method and historical theory is evident from the tiniest issue (like the constant misspelling of William Cronon's name as Cronin) to the analytical framework of the book itself. Although certainly human activities affected the ecosystems of the Hudson and the ecosystems were altered as a consequence-or as Henshaw states in the introduction: "the reciprocal effects of human uses

and ecosystem responses" (p. xv)-the historical context of this dialectic between humans and nature is not well developed in this volume. Such "feedback loops" provide an operational foundation to the historical study but are not a particularly substantial thesis. Henshaw, an ecologist, environmental analyst, and former New York State Department of Environmental Conservation employee, suggests that historians who simply document historical events miss "important explanations of those historical events." While I agree with this assessment, Henshaw more than strongly implies that this is how historians generally function: "Historians have documented past events, but their descriptions leave us with questions" (p. 2). An antiquarian approach to history certainly can do that, but I get the impression that Henshaw believes his description of the historian's work is normative and it does not take into account the analytical rigor of the field, or the powerful studies that environmental historians have produced in riverine history in general and many of the topic areas addressed in the book in particular. My concern is not so much that professional historians are largely missing from this study, but that historical analysis and historical methods are so weakly presented.

That being said, the book offers several valuable contributions to our understanding of the Hudson and its environmental history. While most of the chapters are based on published primary sources and secondary materials, several do a good job encapsulating some key issues and are drawn from larger studies with even more depth and detail. Part 1, "History and Biology," includes a background chapter dealing with the fur trade, the colonial period, and related topics; a general piece on linkages between people and ecosystems; and a discussion of land use issues, railroads, vegetation change, and growth issues. This latter piece, chapter 3, is a general assessment with questions central to understanding significant changes along the Hudson, but it is more suggestive than thorough. The primary focus on the Hudson, and not its major tributaries, such as the Mohawk, is a limitation, however.

Part 2, "River of Resources," provides some very useful additions. Henshaw's introductory remarks, however, tend to perpetuate the old "Indian as Ecologist" idea by suggesting that Native Americans left few imprints on the land–positive or negative–rather than discussing what kinds of changes they actually made. Chapter 4 on Hudson River fisheries is a fine addition. While the data is not new, the discussion is well informed, reinforcing the importance of fisheries on the Hudson as a bellwether of environmental change. Chapter 5 on herpetofauna is a

curious addition in this section because the author never clearly explains how and why amphibians and reptiles are a resource. Chapter 6 dealing with human impacts on the river's morphology and the role of sediments is one of the best in the book. While the jargon is a bit extensive, the discussion of shoreline change, loss of wetlands, dredging, and the introduction of human structures like bridges truly captures the spirit of the book. Chapter 7 deals with early civilizations and could have been introduced earlier. The same could be said for chapter 8, which also deals with early human occupation, although the detail and bibliography are strong elements here. Chapter 9 offers a broad-scale discussion of climate change and its relationship to wetlands management, forest decline, and sedimentation. This is another chapter that probably should have come earlier to contextualize some of the more historical studies. The "resource" component is not well discussed. Chapter 10 deals with vegetation dynamics in the Shawangunk Mountains, and as such seems to be quite narrow given the theme of the book. Chapter 11 on agriculture is a central, anchoring piece to this part of the book and provides a useful overview of an important topic. The discussion of changes in production, consumption, and the loss of agricultural lands is a major issue for the Hudson River Valley's environmental history. Chapter 12 deals with agricultural influences on inland habitats, and although complementary to chapter 11, seems to be a bit of a stretch for this book. Chapter 13 on exotic ornamental plants is promising but does not address the broader role of exotic/invasive species on the Hudson's ecosystem. The general issue of exotics was not the focus of the essay, but contextualizing the historical presence of more than 150 aquatic alien species, including most recently the zebra mussel and the water chestnut, would have helped.

Part 3, "River of Commerce," also provided some fine essays, but was probably the least developed section of the book. Henshaw was faced with space limitations and limits in terms of available authors and expertise. But a section promising to discuss the impact of commerce on the Hudson-a major issue for many decades-needs to do more with a wider variety of economic activity and an array of substantial pollution issues. Missing from the section is more than a cursory examination of industries, such as pulp and paper mills, quarrying and brick making, cement plants, oil refining, and the list goes on. In addition, there is only a passing reference to the controversy over PCBs in the Hudson since the 1940s and little if any discussion of urbanization and suburbanization, dam building, and canal history. While transportation is covered more effectively, these topics listed above are essential for understanding commerce and industry on a river so intensively exploited throughout human history. Yet not every key topic is missing in this study. Chapter 14 is a fine study of ice harvesting, which, upon first glance, may not seem important to the environmental history of the river. As a necessary commodity, ice was crucial to private citizens and businesses before refrigeration technology. That the pollution of the river undermined ice harvesting is also an important point. Chapter 15's focus on sanitation issues in New York City is a solid overview of a crucial human waste question. Research on sewerage and sanitation is strongest for Gotham, but the problem extended all along the river, which points to a common issue in the book of focusing most attention on the lower Hudson. In particular, there is not much attention paid to what became known as the "Albany Pool," the incredibly polluted area in the Capital District along the river. Changes in sanitation practices and new antipollution laws could have been examined more closely to demonstrate some positive changes to the role of the Hudson River as a sink for human waste. Chapter 16 on Foundry Cove is a necessary addition on a well-known industrial pollution issue. Chapter 17 on transportation hits on a major issue of human-induced environmental change but strays from the Hudson too frequently into a more general discussion of the topic. Chapter 18, the last chapter in the section, focuses on entrainment and impingement related to electrical power generation, but it does not take the opportunity to expand the discussion to nuclear power development à la Indian Point and the debate over thermal pollution.

Part 4, "River of Inspiration," blends together discussions of the Hudson River School of Art, the rise of the environmental movement, and some generalized overviews. The connection of these chapters around "inspiration" is quite bewildering. The obvious importance of the Hudson School in creating images and symbols of the river is well known, though why art historians or other such experts were not employed to address these themes is unclear. Viewing the environmental movement as an aspect of "inspiration" does not make much sense to me. The question as to whether environmental debates over Storm King, the rise of Riverkeepers, and so forth suggest a special place for the Hudson amid the rise of modern environmentalism is worth serious discussion,

but it is not well developed in this section. In particular, chapter 19 frankly does not do the subject justice. The background sections of the chapter leading to Storm King are quite weak, and the bibliographic references are quite thin. Here and elsewhere a discussion of the Adirondacks is missing. The chapter provides no reference to concerns over the need to preserve areas in the Hudson Valley watershed as "forever wild," as discussed in works by Philip Terrie and other scholars. The more generalized essays, chapters 21 and 22, also do not seem to fit the specific theme of part 4 and tend to repeat the argument about feedback loops. Part 4 is more of a grab bag of various issues rather than a carefully crafted section.

Henshaw's afterword is not a fitting conclusion for the book. He concludes: "But despite the heavy use, and the increasing settlement of upriver communities, the characteristic landscape today remains one of scenic grandeur" (p. 335). This might be so to some extent and in some areas along the river, but is this the point of the book? Is this where the authors have taken us? A more incisive assessment is necessary to demonstrate how the river and adjacent land use has changed and what remains of the Hudson's earlier characteristics.

It should be stated that any pioneering study like this one faces the problems of great expectations, imposing goals, and a certain amount of disappointment. Along with these reactions must come a certain amount of enthusiasm and applause for taking on a difficult task. *Environmental History of the Hudson River* offers mixed messages. Yet it brings to public attention the importance and complexity of one of America's great rivers.

Nevertheless, even with the limitations imposed by assembling a book out of conference essays, greater attention needed to be paid to conceptualizing the bookby organizing and prioritizing essays in such a way as to present the topic and the central points necessary for a comprehensive environmental history. The volume offers several crucial elements in such an environmental history while failing to address others. Hopefully *Environmental History of the Hudson River* will inspire more work on the Hudson and its tributaries, especially the Mohawk. If it does that, it will be a grand success to stand alongside the ongoing work of many of the authors in this volume.

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Citation: Martin Melosi. Review of Henshaw, Robert E., ed., *Environmental History of the Hudson River: Human Uses That Changed the Ecology, Ecology That Changed Human Uses.* H-Environment, H-Net Reviews. January, 2012.

URL: http://www.h-net.org/reviews/showrev.php?id=34075



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