



AMERICAN

ENVIRONMENTAL HISTORY

An Introduction CAROLYN MERCHANT



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Acknowledgments

Writing *American Environmental History* has afforded me the unique opportunity to review and synthesize developments and resources in this relatively new and dynamic field. Environmental history emerged out of 1960s concerns over the impacts of pesticides, population, urbanization, and technologies on the environment. Propelled by popular interest in the state of the environment following Earth Day 1970, many people began rethinking the relationships between the environment and academic fields such as history, ethics, political science, and economics. The American Society for Environmental History was founded in 1977, a year following the publication of the first issue of the journal *Environmental Review* (subsequently called *Environmental History Review*), which merged with *Forest History* in 1996 to become the journal *Environmental History*. A second journal published in England, entitled *Environment and History*, was launched in 1995. As the field has continued to grow, articles pertaining to the history of the environment have appeared in many journals and magazines. *American Environmental History* presents a survey of the field that includes an overview of topics and themes, a compendium of persons, concepts, and laws, a chronology of major historical events, and a guide to additional resources. The second edition adds several new topics to the historical overview and updates and expands the other sections of the book. No book of this type can ever be complete in light of the many topics and resources that continue to emerge in the environmental history field, and difficult decisions have led to what is included in this volume.

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CM
Berkeley, California

Introduction

American Environmental History introduces the many dimensions of human interaction with nature over time. As people have lived and spread out over the planet, they have modified its forests, plains, and deserts. Those changes in turn have affected the ways in which people organize their social and religious systems. *American Environmental History* offers the reader a brief history of that interaction as it took place in the lands that constitute the present United States; a mini-encyclopedia of concepts, laws, agencies, and people pertinent to the field; a timeline of important events; and a set of print, visual, and electronic resources for further reading and research.

Environmental history is both one of the oldest and newest fields within human history. All cultures have oral and written traditions that explain human origins and encounters with the natural world through stories about local landscapes and ways to perpetuate life from the land. Many cultures developed these early ideas into elaborate oral and written traditions, and finally into modern scientific approaches to explaining and managing the vicissitudes of nature. Religion, science, art, and literature provided ideas as they evolved over time, while records such as calendars, diaries, account books, treatises, and museum collections give access to human practices that modified the landscape.

Environmental history comprises a set of approaches to doing history that brings nature into the story. Natural conditions such as climate, rainfall, terrain, vegetation, and animal life create possibilities for the quality of human life. Human systems of producing and reproducing life over time entail technologies, economies, governance, and social structures. Such systems include gathering, hunting, and fishing; agriculture; and industrialization. These human systems, however, result in a transformed nature, and the character of that transformation is a major theme for environmental history. And, as nature changes, people's ideas of what it ought to look like also change. To some a vanishing "wilderness" has positive value; for others it is a tragic loss. The character of such evolving ideas and how to implement or reverse landscape changes is another major topic for environmental historians.

Environmental historians ask the following kinds of questions:

- How did American Indians use, manage, and conserve the land?
- What ideas, animals, plants, diseases, and systems of producing necessities were introduced by European, African, Asian, and other immigrants? How did they change the land?
- How did various racial and ethnic groups interact in transforming the various regions of North America?

- What resources and commodities were important in various regions and to various groups of people?
- What kinds of practices, regulations, and laws were used from earliest times to the present to manage the land? (E.g., timber cutting, firewood, fires, water, range, etc.)
- What was the impact of the rise of cities on the surrounding country? What contributions did cities make to resource use?
- What environmental problems were created by urbanization? (E.g., air and water pollution, disease, hazardous wastes, noise, etc.)
- What were the sources of opposition to development? (E.g., the wilderness preservation, resource conservation, and environmental movements.)
- What were some of the ideas driving environmental change? These might include: religion—replenish and subdue the land; stewardship or reverence for nature; manifest destiny; wise use of nature.
- How did past ideas about nature, such as wilderness, the Jeffersonian ideal of farms on the land, concepts of land reclamation, ideas of hydraulic societies, and the aesthetic appreciation of nature help to propel change?

Because of its vast scope, environmental history is very complex. Among the most complicated aspects of the field are the very meanings of terms such as nature, environment, wilderness, garden, conservation, and ecology. Not only do such terms mean different things in different eras, they mean different things to contemporary historians. A concept such as wilderness, for example, was synonymous with home for Indians, anathema to Puritans, the basis for national pride to romantics, and a way to retain masculine, frontier virtues to turn-of-the-century urbanites. For contemporary historians wilderness may be a complex idea that has no foundation other than its changing historical meanings, or it may mean a real, forested landscape that has evolved over millions of years and exists today only in isolated remnants. Debates such as these have great practical consequences. How wilderness is defined lies at the core of development policies. If it is an evolved reality that can be documented through evolutionary and ecological science and areas of pristine “wilderness” can be identified, then laws to preserve these remnants can be passed, implemented, and adjudicated through the courts. If, on the other hand, what wilderness means is an ephemeral semantic debate having different meanings in different eras, then some will argue that no particular place has any greater claim to preservation or development than any other. Environmental history therefore lies at the core of current policy choices.

Environmental historians approach their field from a variety of perspectives. One approach is to focus on biological interactions between humans and the natural world. Animals, plants, pathogens, and people form an ecological complex in any one place that can be sustained or disrupted. When Europeans settled in North America and other temperate regions of the world, they introduced diseases, such as smallpox, measles, and bubonic plague; livestock, such as horses, cattle, and sheep; European grains such as wheat, rye, barley, and oats, along with varmints, such as rats; and weeds, such as plantain and dandelions. These ecological introductions, especially diseases, devastated the lives of native peoples. While some of the introductions, such

as the horse, gave some Indians a temporary advantage over Europeans, the introduced ecological complex as a whole altered the landscape in ways that benefited the settlers and disrupted Indian lifeways.

A second way to think about environmental history is in terms of a series of levels of human interactions with nature, such as ecology, production, reproduction, and ideas. On the first level is nature itself. Nature's own history can be described in terms of the evolution of the geology and biology of a given place; the ecological succession of plants and animals found there; and the variations in temperature and climate that create the potential for human systems of production. At the second level, human forms of production also vary over time. North American Indians evolved complex systems of gathering, hunting, fishing, and horticulture, combined with trading across tribal boundaries. European settlers who arrived on the continent in the sixteenth and seventeenth centuries developed sophisticated technologies such as ships, gunpowder, iron tools, clothing, and agricultural systems that created complicated, often uneven systems of interaction among Europeans, Indians, and nature. At the third level is reproduction. This includes biological and social forms of reproducing human and non-human life, as well as means of reproducing human social and political life over time. Finally, on the fourth level, are ideas, such as narrative, science, religion, and ethics that explain nature, the human place within it, and means of behaving in relation to it.

A third approach to doing environmental history is in terms of environmental politics and transformations in political and economic power. The history of the conservation and preservation movements of the late nineteenth and early twentieth centuries, for example, can be delineated in terms of political struggles within a presidential administration, the role of citizen movements in pressing for the preservation of natural areas, and the creation of government and state agencies to manage and conserve natural resources.

A fourth approach to the field is to focus on the history of ideas about nature. Histories of a philosophical idea such as wilderness, a scientific idea such as ecology, or an aesthetic idea such as natural beauty form the topics of numerous books about the nature of nature in North America. These works examine the ideas and creative products of artists, nature writers, science writers, explorers, and travelers for clues as to how people felt about nature and how their feelings led to actions with respect to its visual or economic resources. Such intellectual histories help us to understand how changing ideas about nature and beauty can be influential in creating the environments we see around us today.

A fifth way to do environmental history is in terms of narrative. One can argue that all peoples interpret their world through stories, whether the origin stories of Native Americans or Europeans, the stories of various fields of science as they progress over time, or morality stories that tell us how to behave in the world. Environmental historians often contrast their histories with histories of progress and enlightenment, inasmuch as developments for human well-being—such as industrialization—can result in the degradation of the environment through pollution and depletion. Yet all environmental history does not necessarily view history as a decline from a pristine environment that was irrevocably and negatively transformed when humans entered it. Environmental historians write narratives that are both progressive and declensionist,

comic and tragic, intricate and bold. Nevertheless, the stories have a message. They explain the consequences of various past interactions with the natural world and warn us of potential problems as we form policies and make decisions that affect our lives and those of our children. Knowing and doing environmental history is therefore critical to the continuance of life on earth, whether that life be human or that of the other animals and plants that occupy the landscapes in which we dwell.

The following synopsis is a guide to the topics and themes presented in the ten chapters of [Part I](#), Historical Overview. It is a brief orientation to the ideas and structure of [Part I](#) and shows how some of the above themes can be developed as a narrative of resource use and environmental conservation over five centuries of change from native American times to the present.

Native Americans were the original stewards of the land. They settled the present-day United States some 13,000 years ago, developing a variety of ways of living off the continent's resources. Their modes of production included gathering, fishing, hunting, and horticulture in regions where environmental conditions ranged from mountains to deserts, coasts to plains, humid to arid, and whose temperatures varied from extremely hot to frigidly cold. They developed varied and sophisticated technologies for obtaining sustenance, patterns of reciprocal trade, modes of tribal governance, and interpretations of the natural and human worlds. They responded to environmental catastrophes, invasions by outsiders (especially Europeans), and introductions of new technologies, diseases, and ideas through social reorganization, migration to new environments, or in some cases by social collapse. This rich and differing set of modes of living on the land and responding to outside influences can be illustrated by the pueblo cultures of the Southwest, the hunting cultures of the Northeast, and the nomadic cultures of the Great Plains. ([Chapter 1](#))

European colonizers viewed nature through a different set of lenses than had the native peoples of North America. After an initial period of exploration during the fifteenth and sixteenth centuries, European settlers with new modes of production, social organization, and ideas about nature dramatically and intensively altered the landscape. They transformed the eastern and southern frontiers with differing landscape patterns through different historical periods. Along the east coast and southern Gulf coast, settlers sought religious freedom and extracted marketable goods, including furs, timber, tobacco, rice, and cotton. Much of the eastern and southern lowland regions were intimately connected to Europe through exports of natural resources developed by human (especially slave) labor and justified by ideas about nature, wilderness, and racial difference. Slaves contributed unique knowledge and technologies to tobacco, rice, and cotton plantations. In addition to human actors, trees, soils, and insects became major players in the particular ways the landscape evolved. ([Chapters 2 and 3](#))

The coastal exporting economy of the seventeenth century was followed by and interspersed with a subsistence-oriented economy of the inland upland regions during the eighteenth century. The transportation and market revolutions that accompanied nineteenth-century expansion to the Mississippi River reorganized the coastal exporting and inland subsistence economies into an internally dynamic system of sectional production for the market. Textiles from mills powered by New England's rushing streams; wheat, coal, and iron from the bowels of the middle states and Old

Northwest; cotton, rice, and sugar from the south's red soils combined to fuel economic expansion and settlement. Artists, poets, writers, and explorers, however, responded to vanishing forests and wildlife and transformed landscapes with poignant ambiguity. (Chapter 4)

Simultaneously on the Pacific Coast, Spanish, Mexicans, and Russians exploited native peoples in the extraction of hides and tallow from cattle on a thousand hills in California, otters and seals that populated the northwest and Alaskan coasts, and whales and fish that roamed the Pacific seas. By the mid-nineteenth century east and west met as wars and treaties with Mexicans to the South and British to the North resulted in an Atlantic to Pacific nation and a massive migration first to Oregon and California and then to the intervening Great Plains. Gold panning, river bottom, hydraulic, and hard rock mining in California and the western mountains desecrated the landscape while making millions for the few and pushing the many into new occupations and new territories. Opportunities in fishing and farming for some, as well as hard labor in fields and on railroads for others, created race and class divisions among those who abandoned mining for other resources. Salmon fishing in the Pacific northwest, redwood lumbering in the California Sierras and coasts, and ranching in the Pacific valleys and mountains produced erosion, debris flows, stream siltation, deforestation, and wildlife decimation. (Chapter 5)

Separating east coast markets and west coast industries stretched the unending Great Plains, famously depicted as the Great American Desert, filled with herds of thundering bison, and fierce horse-mounted Indian warriors. Filling in the Plains after mid-century was the project of nineteenth-century ranchers, sheep-herders, farmers, and railroad entrepreneurs. Technologies such as barbed wire, windmills, and the John Deere plow made homesteading on 160 acres a too-often-unrealized dream in a drought-ridden region plagued by dust storms, grasshoppers, blizzards, and Chinook winds. Here Nature's challenges framed the struggles and success stories of Indians, fur traders, ranchers, and farmers, punctuated by the unique contributions of black and Mexican cowboys, the determination of women homesteaders, and the saga of European immigrants lured by the railroads in search of better lives. (Chapter 5)

Amid the drama of spatial expansion came the impacts of urban growth. Located on accessible bays, navigable rivers, lakes, and river junctions, cities provided access to national and international markets. Resources from the hinterlands were swept into the mills and factories that provided jobs and profits. The growth of cities spawned an array of environmental problems including water distribution, sewage treatment, garbage collection, air and noise pollution, and unhealthy working and living conditions. Eventually asphalt and steel obscured the remnants of living nature as downtowns expanded and high-rises mushroomed. Class and race became determinants of urban population distribution. The very rich and the very poor often remained within city limits, as white-collar workers fled to streetcar and automobile suburbs. (Chapter 6)

By the late nineteenth century, the dominant narrative of frontier exploitation was challenged by perceptions of resource depletion and vanishing wildlands. The need for resource conservation and wilderness preservation captured the imaginations of the nation's elite. A new narrative of conservation and preservation of forests, rangelands, wildlife, and open spaces began to take shape, enlisting the talents of scientists,