

Humans and the Environment in America's Past

Mark W. T. Harvey



The environmental history of North America has no clear beginning, any more than does American history generally. Historians cannot point to a calendar and say “this is when Americans began thinking about the environment in a new way.” Such a statement would be considered problematical from many points of view. In the first place, which Americans are being considered—Indians, slaves, or European colonists? Or even harder: what does “thinking about the environment in a new way” really mean?

Environmental historians have thus approached “the beginning” by posing large questions about North America and its many peoples: what kind of nature did people inhabit, including Indians who lived on the continent for centuries before Europeans? What kind of attitudes did various peoples hold toward nature, and how did this influence the way they utilized its resources? These broad lines of inquiry govern such works as Alfred Crosby’s *Ecological Imperialism*, Carolyn Merchant’s *Ecological Revolutions*, William Cronon’s *Changes in the Land*, and Timothy Silver’s *A New Face on the Countryside*. Each of them seek to understand a most complicated period in America’s environmental past. Five

centuries ago was a time of international exploration and colonization of the Americas, of new beginnings for Indians and Europeans alike, marked by the impact of new microbes, plants, and animals that altered the lives of Native Americans (millions died from disease) in innumerable ways.

Indians and colonists cooperated at

What seemed most remarkable to colonists about North America was its abundance of resources.

times in utilizing nature’s bounty, notably during the fur trade when animals’ furs fetched a good price in European markets. On the whole though, a persistent theme in the colonial period was the often divergent views of Indians and whites over how land, animals, and resources should be used and respected. Indian religious practices generally emphasized a spiritual dimension to the natural world, while most European colonists embraced Judeo-Christian notions that mankind should subdue the earth.

What seemed most remarkable to colonists about North America was its abundance of resources. None had ever seen such vast quantities of animals, expansive forests, or sizeable parcels of land. More than any other factor, abundance shaped American environmental history from the colonial era until well into the nineteenth century. After the American Revolution, people marched westward across the Appalachians into Tennessee, Kentucky, and the Ohio Valley, and southwesterly into Texas, Arkansas, and Missouri. They pushed onto the productive soils of the Old Northwest and the deep Gulf Coast, where cotton boomed in the 1810s and 1820s. In the 1830s and 1840s they plowed the great expanses of the Midwest prairie and turned that landscape into a corn belt. After the Civil War, a growing urban populace and the growth of railroads propelled Americans onto the Great Plains and into the Rocky Mountains, drawn by plentiful natural resources and millions of acres of land.

If frontier expansion sprang from natural resource abundance, so did the growth of cities. And as William Cronon has shown in his brilliant book on Chicago and the West, city and country were tightly linked. The city on Lake Michigan sprouted

from 1840 to 1900, its economy built on processing meat and marketing grain and lumber. "Nature's Metropolis," as Cronon aptly calls it, arose simultaneously with the cutting of forests in Michigan and Wisconsin and the settlement and cultivation of the prairies, plains, and grasslands of the "Great West." In Chicago, cattle became sides of beef, logs from northern Michigan became board feet, and grain from the Great Plains helped establish the Chicago Board of Trade.

This commodification of nature was critical not only to the economy but also in shaping American's relationship with nature. As grain, lumber, and beef were commodified, Americans—city dwellers especially—gradually lost sight of the prairies, forests, and grasslands—of nature itself. Together then, abundance and the production of raw materials distanced people from nature. They took nature's wealth for granted; then they forgot it existed.

What changed this way of thinking was a gradual awareness that resources were fast becoming scarcer to find. The rapid cutover of the pine woods in the Great Lakes states threatened a major source of building

material and energy. Warnings of a "timber famine" soon appeared, providing the first alarm bells about waning abundance. Then, in 1864, George Perkins Marsh published *Man and Nature*. The book described severe erosion and loss of watersheds caused by rapid deforestation, particularly in the ancient Mediterranean world, and it carried a clear lesson for Americans. In the last third of the nineteenth century, scientists, federal officials, and even timber companies recognized that rapid cutting of forests must be reduced and regulated. The result was the Forest Reserve Act of 1891. Under this law, presidents from Benjamin Harrison to Theodore Roosevelt set aside millions of

acres of "timber reserves" in the mountains of the West; Congress placed them under the new Forest Service in the Department of Agriculture in 1905. Guided by the firm hand of Gifford Pinchot, the Forest Service set regulations on logging based on scientific forestry in order to achieve "sustained yield," and it put the national forests to other uses, too, like grazing. The Forest Service thus embodied the spirit of scientific research and "multiple use" that characterized the conservation movement in its earliest phase.

In the latter part of the nineteenth century, settlement of the Great Plains raised awareness of another scarce resource: water. By the 1890s, droughts had devastated parts of Kansas, Colorado, Ne-

braska, and the Dakotas, and westerners soon became enthusiastic promoters of irrigation. Federal legislation again emerged, this time in the Reclamation Act of 1902, which used public land sales to fund irrigation projects and created the Reclamation Service to erect dams and water projects.

braska, and the Dakotas, and westerners soon became enthusiastic promoters of irrigation. Federal legislation again emerged, this time in the Reclamation Act of 1902, which used public land sales to fund irrigation projects and created the Reclamation Service to erect dams and water projects.

Scarcity also became apparent with the rapid disappearance of wildlife species over the nineteenth century. After the fur trade and market hunters nearly killed off the beaver and bison, efforts to conserve game animals and wildlife began. Historian John Reiger argues that sport hunters "were the real spearhead of conservation." They recognized that limits had to be placed

on hunting and that methods of hunting that did not give animals a chance to escape (such as hunting ducks at night by using lights to confuse them) were incompatible with sport. Sport hunting ethics and methods were championed by organizations like the Boone and Crockett Club, founded in 1887. The Club promoted "manly sport with the rifle" and states established wildlife laws and set hunting seasons. Americans by the end of the nineteenth century had begun to modify a culture and economy based on abundance, accepting some regulated management of natural resources.

By the turn of the twentieth century, environmental awareness emerged as well in towns and cities, where a majority of Americans then lived. Large cities offered cultural amenities, consumer goods, and exciting diversity, but they also displayed the deleterious effects of industrialization and overcrowding. They were dirty, foul places, as evidenced by garbage and animal wastes that piled up on streets. Mounting fears about sanitation and disease, along with technological improvements in water treatment and incineration as well as the de-

velopment of sanitary engineering, spurred efforts to eliminate the trash.

Even clean cities could not substitute for the thrills of experiencing nature up close. By 1900, urban dwellers experienced a growing fondness for mountains, forests, and wilderness landscapes. Generally a well heeled upper class had the means and leisure to journey to such places (which helps explain why railroad companies often spearheaded campaigns to establish national parks like Yellowstone). Still, if the preservationism appealed to a small segment of society, it nonetheless became an important aspect of environmental thought. Devotees of "pristine" nature took their cues from early-nine-

Painting by T. Gilbert White, 1901. In Lucile Gulliver, *Daniel Boone*, 1916.

Due to copyright restrictions, images are not included in this electronic edition.

T. Gilbert White's famous painting, "Boone's First Glimpse of Kentucky," representing European-American settlement west of the Appalachian Mountains.

teenth century Romantic writers like Washington Irving and Henry David Thoreau and artists like Thomas Cole, who turned their pens and paintbrushes to capturing the scenic wonders of the Catskills and stretches of the Hudson River Valley. In expressing their love of such places, they instigated a sense of the sublime that underpinned preservationism in America.

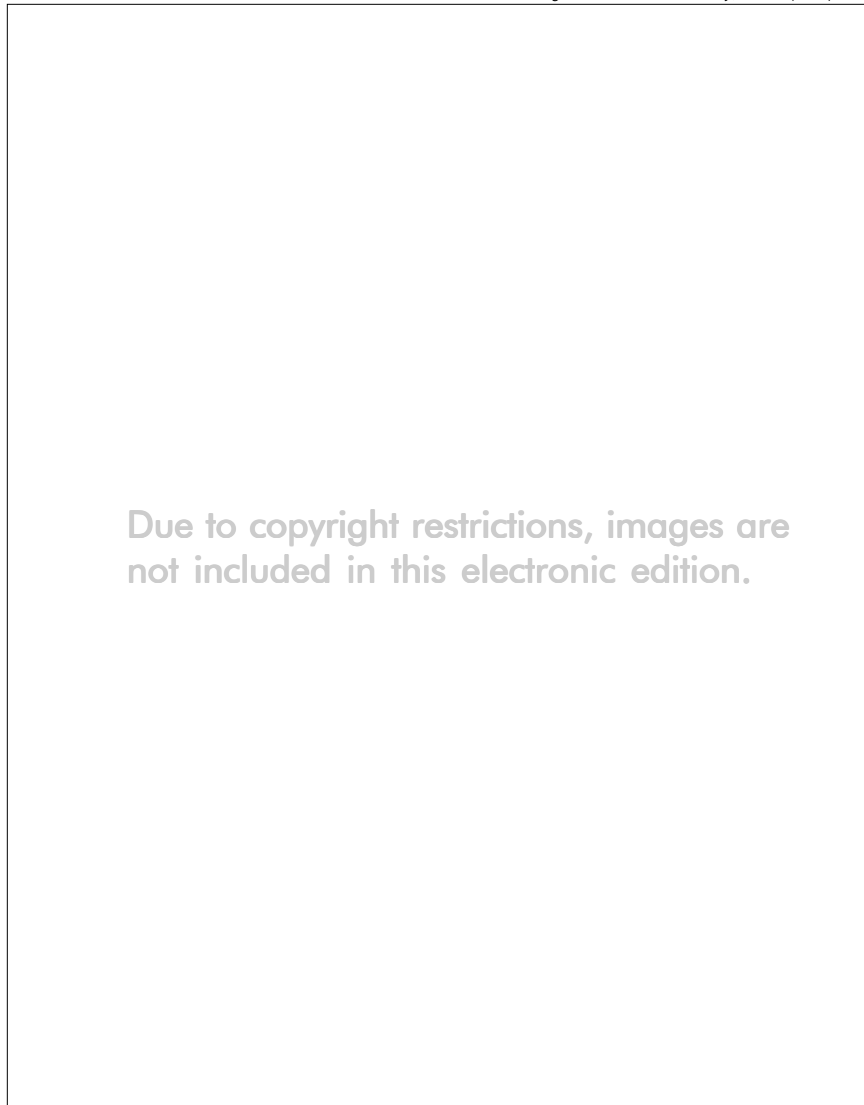
Perhaps no one captured the sublime in words as well as the bearded, Scottish-born nature writer, John Muir. Raised by a strict Calvinist father on a Wisconsin farm in the 1850s, Muir dabbled as an inventor and factory worker before leaving the Midwest on a journey of self discovery that eventually carried him to California. There he fell desperately in love with the Sierra Nevada mountain range. "John of the Mountains" quickly earned a reputation for a hermit-like existence of living on roots and berries, and climbing sheer walls in Yosemite Valley to precipitous heights. His eloquent accounts of the Sierra later appeared in *Century Magazine* and other journals; he went on to write several books. Muir fought successfully to help create Yosemite National Park in 1890.

He failed, however, in defending that park in one of the most famous showdowns in environmental history. Shortly after 1900, San Francisco sought to build a dam on the Tuolumne River in the Hetch Hetchy Valley inside Yosemite National Park. After a decade of fierce controversy, Congress agreed to the dam. A rift now emerged in

the conservation movement between those who championed "multiple use" of resources and those who believed in preserving rare parcels of the landscape. Although Hetch Hetchy was a bitter defeat for Muir, preservationists won a major consolation prize when Congress in 1916 established the National Park Service in the Depart-

ral resources to ensure "multiple use" continued to dominate in conservation affairs. That tradition grew during the Great Depression, when federal regulation took on great urgency in order to avoid squandering of vital resources. One example was rivers. Flowing water uncontrolled by dams went to waste, it was thought, so a

Magazine of American History, vol. 25 (1891): 443.



The rapid construction of railroads led to the excavation of scenic mountain ranges such as this tunnel that burrows through Pike's Peak.

ment of the Interior. This bureau took over management of the national parks, with an obligation to preserve them "unimpaired" for future generations while providing for the public enjoyment of them.

Notwithstanding the creation and protection of parks, the management of natu-

ral resources to ensure "multiple use" continued to dominate in conservation affairs. That tradition grew during the Great Depression, when federal regulation took on great urgency in order to avoid squandering of vital resources. One example was rivers. Flowing water uncontrolled by dams went to waste, it was thought, so a flurry of dam construction began in the 1930s to control floods, supply irrigation water, and generate hydroelectric power. In 1933, Congress created the Tennessee Valley Authority. This agency produced and marketed power that elevated living standards for one of the nation's poorest regions. In the West, a similar faith in the power of hydroelectricity underpinned construction of the Boulder Dam on the Colorado River and Grand Coulee Dam on the Columbia River. These projects boosted the fortunes of the Bureau of Reclamation that now became an institution within the government and West, as the TVA did in the South.

The New Dealers also began to help manage soils following the ferocious dust storms on the Southern Plains (the so-called "Dust Bowl"), one of the greatest environmental disasters in American history. The government assisted farmers with programs

like the Soil Conservation Service, while the Civilian Conservation Corps planted millions of trees in shelterbelts on the Great Plains. The 1934 Taylor Grazing Act closed the public domain to further homesteading and established grazing regulations on the remaining public range.

The 1930s also saw a greatly expanded national wildlife refuge system. In 1934, Congress passed the Duck Stamp Act, which imposed a fee on duck hunters, and created a pool of funds to purchase lands for refuges. President Franklin Roosevelt appointed Jay Darling to head the Biological Survey, and he became a tireless advocate of expanding waterfowl and wildlife refuges.

Environmental history is not only a chronicle of government management of natural resources. It is also the story of energetic individuals and of organizations dedicated to protecting wildlife or to safeguarding particular landscapes. Besides the Sierra Club, which John Muir helped found in 1892, major organizations included the Audubon Society, which fought

for legislation to prohibit hunting of non-game birds, and the Izaak Walton League, which supported the interests of fishermen and various outdoor recreationists. Another key organization, founded in 1935, was the Wilderness Society. Among its founders were Benton MacKaye, who spearheaded the Appalachian Trail, a footpath down the entire length of that range; and Robert Marshall, forester and inveterate hiker. Both men expressed alarm at the proliferation of roads into forested lands. The Wilderness Society remained a small organization until well after World War II, but its dedication to maintaining roadless areas in national forests and parks set it apart from older hunting, fishing, and birding groups.

Another major influence on environmentalism has been the growth of knowledge about nature. Here science, and especially ecology, has been critical. Aldo Leopold was a leading ecologist in the 1930s and 1940s. His career offers a fascinating study in the evolution of a major environmental thinker, philosopher, and scientist. He began as a forester in New Mexico, where he supported government efforts to eradicate wolves, mountain lions, and other predators with poisons and traps. In subsequent years, however, Leopold learned that predators helped maintain a balance in nature (wolves helped regulate deer populations), and he subsequently became a critic of the war on predators, as did other ecologists such as Olaus Murie. Ecologists increasingly preached that every animal species fulfilled an important role in nature.

Yet despite the growth of ecology, American science was dominated by physics and chemistry, and these fields heavily influenced the development of new technologies, products, and chemicals. As Barry Commoner pointed out in his book *The Closing Circle*, strides in science and technology aided mankind but they were also “like a two legged stool: well founded in physics and chemistry but flawed by a missing third leg—the biology of the environment.”

A prime example was the atomic bomb. Although many Americans felt that the

Original by Hughes and Johnson Lith. In A.T. Andreas, *History of Chicago*, vol. 3, 1886

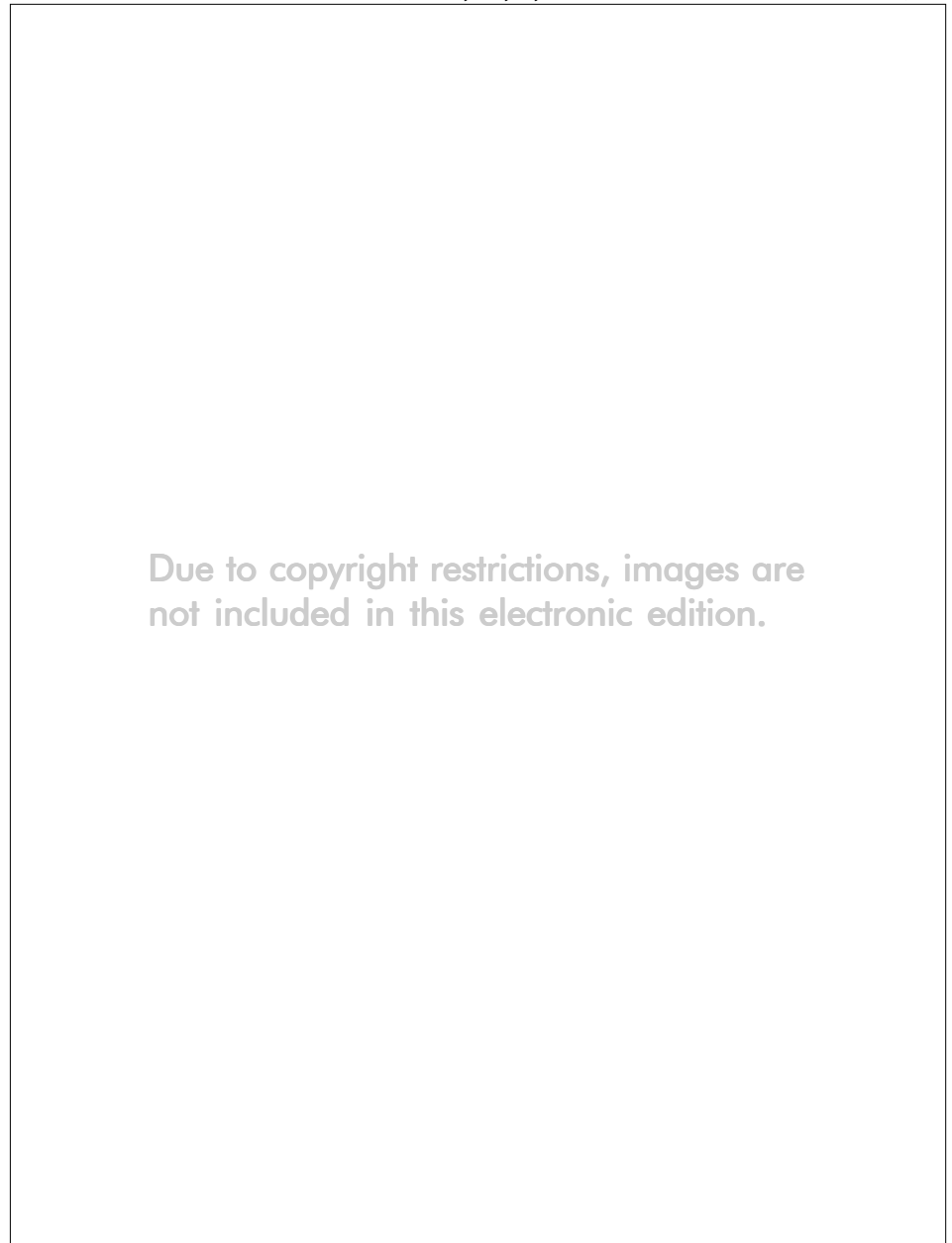
Due to copyright restrictions, images are not included in this electronic edition.

The Chicago Board of Trade, circa 1885, encouraged the commodification of many western resources.

bomb had been used with justification to end the war against Japan in 1945, they experienced mounting anxieties over the dangers of nuclear weaponry. In the 1950s above ground tests of nuclear bombs sparked fears about radioactive fallout. When added to episodes like the famous “cranberry scare” before Thanksgiving in 1959—when Americans were warned against eating cranberries because a batch had been contaminated by pesticides—their uncertainty at bewildering new environmental hazards grew.

These developments provided the backdrop to the seminal book written by Rachel Carson, *Silent Spring*, published in 1962. Carson, a one time government biologist and nature writer, took aim at DDT and other pesticides and insecticides used in agricultural and public health spraying programs, contending that they devastated wildlife. Evidence against DDT mounted during the 1960s, and the chemical was eventually banned in the U.S. as a dangerous toxin. The 1972 ban revealed how public health concerns were a major well-spring of environmentalism.

With the battle over DDT a central struggle, the decade of the 1960s emerged as a watershed in environmental history. Spurred on by the Civil Rights and antiwar movements, environmentalists chastised “the establishment,” especially corporate America, for polluting air and water. They challenged the automobile industry for producing cars that spewed noxious pollutants in their exhaust, and they pointed to Los Angeles as a symbol of an air-polluted city. They criticized industries and cities for discharging chemical wastes and sewage into rivers and lakes, and they pointed to heavily polluted Lake Erie as a symbol of degradation of a major water resource. Following a major oil spill off Santa Barbara in 1969, they charged the petroleum industry with irresponsibility, and they stood against a plan by a consortium of oil companies to erect a pipeline across 800 miles of Alaska; the pipeline was later constructed. At once angered and galvanized by these events, these new “environmentalists” organized Earth Day on 22 April 1970.



A pensive John Muir in his later years. Muir, an ardent environmentalist, was the founder of the Sierra Club.

And environmentalists got action. The 1960s and 1970s witnessed a burst of federal and state legislation with such notable laws as the Clean Air Acts of 1963 and 1970, and the Clean Water Acts of 1960, 1972, and 1977. These laws took the lead out of gasoline, imposed restrictions on smokestacks, and sought to end the long standing practice of disposing waste and discharging pollutants into rivers and lakes. In 1969 Congress enacted the National Environmental Policy Act, a sweeping fed-

eral law mandating environmental impact statements on projects utilizing federal money or land. President Richard Nixon in 1970 launched the Environmental Protection Agency to enforce these and other laws. Additional legislation banned many toxic chemicals.

In his book, *Beauty, Health, and Permanence*, Samuel Hays persuasively argues that the postwar environmental movement also emerged from broad social changes: a growing middle class, greater

numbers obtaining a higher education, as well as rising incomes for blue and white collar workers who now had greater amounts of leisure time. More Americans than ever took vacations to parks and forests, where they encountered and photographed wildlife and wilderness vistas. In the 1960s, backpacking became popular, leading to a keen interest in the North Cascades, High Sierra, the Adirondacks, Grand Tetons, and many other places.

As a result, more Americans helped to safeguard national parks, monuments, and wilderness areas. Along with successful campaigns to save portions of the Green and Colorado Rivers from dams in the 1950s and 1960s, preservationists drew on their growing political clout to gain passage of the Wilderness Act of 1964, which established a national wilderness system. New national parks were designated in the 1960s too, including Canyonlands in Utah, North Cascades in Washington, and the Redwoods in California. In 1973, Congress enacted the Endangered Species Act.

All of this might be counted as a grand success for environmentalism in the United States, and in many ways it was. Certainly, environmental laws and regulations as well as agencies established to enforce them reveal that the movement has been institutionalized in American society. Yet the environmental movement in the middle 1990s finds itself on the defensive, and some would say losing ground.

To some degree environmentalists blame themselves for becoming too centered on fund raising, lobbying, and too associated with “inside the beltway” politics. In addition, environmentalism has been strongest among white, middle- and

upper-class Americans, while it has been weaker in poor communities and among peoples of color. Charges of environmental racism have arisen from claims that industrial siting and nuclear waste disposal has too often been targeted at poor, minority neighborhoods. Many working

“Wise Use”—has cropped up to challenge federal land agencies and restrictions on property rights in the name of environmental regulation.

At the same time, the weakening of environmentalism has galvanized environmental historians. Recent works in the field reflect many current concerns within the movement, by focusing on the history of environmental racism and justice, and the implementation and human effects of the Endangered Species Act and other regulations, to name two such topics. In a recent work, *Uncommon Ground: Toward Reinventing Nature*, scholars take a close look at traditional conceptions of nature, especially wilderness, and consider how those ideas have helped as well as hampered environmentalism. If the environmental movement itself is on the defensive, environmental history is anything but. The field is flourishing, and greatly enlarging our knowledge of American—as well as Asian, European, African, Australian, and Latin American—history. □

Bibliography

Coates, Peter A. *The Trans-Alaska Pipeline Controversy: Technology, Conservation, and the Frontier*. Fairbanks: University of Alaska Press, 1993.

Cohen, Michael P. *The History of the Sierra Club, 1892-1970*. San Francisco: Sierra Club Books, 1988.

Commoner, Barry. *The Closing Circle*. New York: Alfred A. Knopf, 1971.

Cox, Thomas R. et al. *This Well Wooded Land: Americans and Their Forests From Colonial Times to the Present*. Lincoln: University of Nebraska Press, 1985.

Cronon, William. *Changes in the Land: Indians,*

Grover Cleveland, *The Independence of the Executive*, 1913

Due to copyright restrictions, images are not included in this electronic edition.

Grover Cleveland, 22nd and 24th U.S. president, used executive power to reclaim western land from fraudulent Railroad and corporate claims.

class Americans—especially loggers in recent years—have become dire opponents of environmentalists, who they see as unproductive citizens who too easily discount the role of natural resource development in sustaining regional economies along with growing families. Finally, a strident anti-environmental movement—which employs the name

- Colonists, and the Ecology of New England*. New York: Hill & Wang, 1983.
- . *Nature's Metropolis: Chicago and the Great West*. New York: W. W. Norton, 1991.
- , ed. *Uncommon Ground: Toward Reinventing Nature*. New York: W. W. Norton, 1995.
- Dowie, Mark. *Losing Ground: American Environmentalism at the Close of the Twentieth Century*. Cambridge, Mass.: MIT Press, 1995.
- Dunlap, Thomas R. *DDT: Scientists, Citizens, and Public Policy*. Princeton, New Jersey: Princeton University Press, 1981.
- Flader, Susan, ed. *The Great Lakes Forest: An Environmental and Social History*. Minneapolis: University of Minnesota, 1983.
- Fox, Stephen. *John Muir and His Legacy: The American Conservation Movement*. 1981; Madison: University of Wisconsin Press, 1985.
- Gottlieb, Robert. *Forcing the Spring: The Transformation of the American Environmental Movement*. Washington D.C.: Island Press, 1993.
- Graham, Frank Jr. *The Audubon Ark: A History of the National Audubon Society*. New York: Alfred A. Knopf, 1990.
- Harvey, Mark W. T. *A Symbol of Wilderness: Echo Park and the American Conservation Movement*. Albuquerque: University of New Mexico Press, 1994.
- Hays, Samuel P. *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985*. New York: Cambridge University Press, 1987.
- . *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1860-1920*. 1959; New York: Atheneum, 1975.
- Hirt, Paul. *A Conspiracy of Optimism: Management of the National Forests Since World War Two*. Lincoln: University of Nebraska Press, 1994.
- Hudson, John C. *Making the Corn Belt: A Geographical History of Middle-Western Agriculture*. Bloomington: Indiana University Press, 1994.
- Hurley, Andrew. *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980*. Chapel Hill: University of North Carolina Press, 1995.
- Huth, Hans. *Nature and the American: Three Centuries of Changing Attitudes*. Lincoln: University of Nebraska Press, 1957.
- Lacey, Michael J. *Government and Environmental Politics: Essays on Historical Developments Since World War Two*. Washington, D.C.: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press, 1991.
- MacLeish, William H. *The Day Before America: Changing the Nature of A Continent*. Boston: Houghton Mifflin, 1994.
- Malin, James C. *History and Ecology: Studies of the Grassland*. Ed. Robert P. Swierenga. Lincoln: University of Nebraska, 1984.
- Matthiessen, Peter. *Wildlife in America*. New York: Viking Press, 1959.
- McEvoy, Arthur F. *The Fisherman's Problem: Ecology and Law in the California Fisheries, 1850-1950*. Cambridge: Cambridge University Press, 1986.
- Meine, Curt. *Aldo Leopold: His Life and Work*. Madison: University of Wisconsin Press, 1988.
- Melosi, Martin V. *Garbage in the Cities: Refuse, Reform, and the Environment, 1880-1980*. College Station: Texas A & M University Press, 1981.
- Merchant, Carolyn. *Ecological Revolutions: Nature, Gender, and Science in New England*. Chapel Hill: University of North Carolina Press, 1989.
- , ed., *Major Problems in American Environmental History*. Lexington, Mass.: D.C. Heath, 1993.
- Nash, Roderick. *American Environmentalism: Readings in Conservation History* 3d ed. New York: McGraw-Hill, 1990.
- . *The Rights of Nature: A History of Environmental Ethics*. Madison: University of Wisconsin Press, 1989.
- . *Wilderness and the American Mind* 3d ed. New Haven: Yale University Press, 1982.
- Novak, Barbara. *Nature and Culture: American Landscape Painting, 1825-1875*. New York: Oxford University Press, 1980.
- Pyne, Stephen. *Fire in America: A Cultural History of Wildland and Rural Fire*. Princeton: Princeton University Press, 1982.
- Reiger, John F. *American Sportsmen and the Origins of Conservation*. Norman: University of Oklahoma Press, 1986.
- Robbins, William. *American Forestry: A History of National, State, and Private Cooperation*. Lincoln: University of Nebraska Press, 1985.
- Runte, Alfred. *National Parks: The American Experience* 2d ed. Lincoln: University of Nebraska Press, 1987.
- Sale, Kirkpatrick. *The Green Revolution: The American Environmental Movement, 1962-1992*. New York: Hill and Wang, 1993.
- Schmitt, Peter J. *Back to Nature: The Arcadian Myth in Urban America*. 1969; reprint, Baltimore: Johns Hopkins University Press, 1990.
- Silver, Timothy. *A New Face on the Countryside: Indians, Colonists, and Slaves in South Atlantic Forests, 1500-1800*. Cambridge: Cambridge University Press, 1990.
- Steen, Howard K. *The U.S. Forest Service: A History*. Seattle: University of Washington Press, 1976.
- White, Richard. "American Environmental History: The Development of a New Historical Field." *Pacific Historical Review* 54 (August 1985): 297-335.
- . *Land Use, Environment, and Social Change: The Shaping of Island County, Washington*. Seattle: University of Washington Press, 1980.
- . *The Organic Machine: The Remaking of the Columbia River*. New York: Hill and Wang, 1995.
- Williams, Michael. *Americans and Their Forests: A Historical Geography*. Cambridge: Cambridge University Press, 1989.
- Worster, Donald. *Nature's Economy: A History of Ecological Ideas*. 1977; reprint, Cambridge: Cambridge University Press, 1985.
- . *Under Western Skies: Nature and History in the American West*. New York: Oxford University Press, 1992.
- . *The Wealth of Nature: Environmental History and the Ecological Imagination*. New York: Oxford University Press, 1993.

Mark W.T. Harvey is a professor of history at North Dakota State University and book review editor for Environmental History. His specialties include environmental history and the history of the American West. He is the author of *A Symbol of Wilderness: Echo Park and the American Conservation Movement* (1993).