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DEEP ROOTS

THE LATE NINETEENTH CENTURY ORIGINS OF AMERICAN FORESTRY

The U.S. Forest Service celebrated its centennial in 2005, an event that depended on a set of individuals who in the years immediately prior to the agency's creation in 1905 labored quietly, and sometimes not so quietly, to defuse opposition to the idea of it within the executive and legislative

branches. Surely the most crucial of these figures was Gifford Pinchot, then head of the Bureau of Forestry, and President Theodore Roosevelt: animating their activism was a shared conviction that conservation of the nation's natural resources would save the United States from economic ruin and a collective faith that a national forest service was best suited to regulate the public lands.

But what were the sources of their ideas? Who had cleared the way for the forester and the president to press their claims, find a (generally) receptive audience, and launch an organization dedicated to managing what has since grown to 193 million acres of forests and grasslands? This special issue of *Forest History Today* is devoted to answering some of these and related questions. It does so by excerpting a representative sample of key writings in the history of forestry and conservation in the post-Civil War era, with each being preceded by an introduction that lays out the individual document's context and significance.

Timing was everything: it was in the aftermath of the bloody North-South conflict, and in the midst of the explosive industrial revolution, that the first sustained consensus emerged about the intensifying need to protect battered landscapes and to conserve resources, from coal to wood, grass to water. The seminal text that called Americans' attention to these linked concerns was George Perkins Marsh's *Man and Nature: Earth as Modified by Human Action* (1864). As Nora J. Mitchell and Rolf Diamant of the Marsh-Billings-Rockefeller National Historic Park demonstrate, Marsh feared the consequences of unrestrained economic exploitation of the nation's rich bounty. "Man is everywhere a disturbing agent," Marsh asserted, and "wherever he plants his foot, the harmonies of nature are turned to discord." He wrote *Man and Nature* in hopes of generating a deeper appreciation of the dilemmas that humanity confronted, encouraging his many readers to embrace stewardship as their only means of survival.

One of those who took Marsh's ideas seriously was Floyd

Perry Baker, an influential Kansas newspaper publisher. Or, at least he would do so after serving as a commissioner to the Paris Universal Exposition in 1878. Assigned to report on the forestry pavilion at the expo, and discuss what advances the Europeans—especially the French—had made in forest management, Baker wrote with a convert's enthusiasm: in Paris, he had seen the future, and it worked. When he returned to the United States, he became a staunch advocate for the practice of forestry on federal lands, and through his later work for the Division of Forestry in the Department of Agriculture pushed for greater governmental regulations of the public lands.

Another Marsh devotee who became an even more powerful spokesman for conservation was George Bird Grinnell. His work for the preservation of Yellowstone and Glacier National Parks, like his founding of the first Audubon Clubs and the legendary Boone and Crockett Club, place him at the forefront of late-nineteenth-century environmental activism, observes historian John Reiger. But it is an 1882 editorial in *Forest and Stream* magazine, which Grinnell published and edited, that his political instincts and ethical perspective as a conservationist are on full display. Its final words reveal his ability to condense Marsh's argument and promote forestry in a way that his audience of anglers and hunters could readily absorb: "No water, no game; no woods, no water; no water, no fish."

Although neither as pithy nor as profound, Nathaniel Egleston also owed a great deal to Marsh's insights. Before becoming the second chief of the USDA Division of Forestry, he had been a minister and teacher. Observing the postwar decline of small-town New England, he suspected that this was a partial consequence of his students' ambitions for more lucrative and urban fields; what would keep them on the farm and in the village? His answer was the restoration of rural environments. He knew this would be an uphill battle, noting in "What We Owe to the Trees," one of a series of popular essays he wrote on reforestation: "The

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history of our race may be said to be the history of warfare upon the tree world. But while man has seemed to be the victor, his victories have brought upon him inevitable disasters.” George Perkins Marsh could not have said it any better.

Bernhard Fernow never trafficked in such apocalyptic rhetoric—he was too much the scientist—and his insights into the practical need for more careful woodland management in America came from another source: German forestry. He had migrated to the U.S. in the 1876 after completing his professional studies and quickly became a force in the American Forestry Association (est. 1875). He was a firm proponent of forestry research, which he argued was the essential prerequisite for effective forest management. When he replaced Egleston as chief of the Division of Forestry in 1886, Fernow instituted a range of projects that became the hallmark of his tenure. Forest Service historian Harold K. Steen notes that there were considerable advances in scientific knowledge during Fernow’s 12 years in office, information that he shared with Congress in innumerable hearings; this data helped persuade legislators that protecting watersheds and logging forests were not mutually exclusive propositions—preservation and profitability could go hand in hand.

But how did that affect things on the ground? This was a pressing issue in the early 1890s, as the prior two decades of conservation agitation had begun to pay off. In March 1891, Congress passed the Forest Reserve Act granting the president authority to set aside forested public lands, and Presidents Harrison and Cleveland used their new-won power to designate roughly 40 million acres as forest reserves. Yet because the act had not stipulated whether or what kinds of management could occur in these forests, historians Gerald Williams and Char Miller write, a possibility not clarified until the 1897 Organic Administrative Act, there was considerable pressure to resolve the ambiguous situation. As a step in that process, in the summer of 1896 the National Academy of Sciences sponsored a National Forest Commission, headed by Charles S. Sargent, director of Harvard’s Arnold Arboretum, to conduct a fact-finding tour. Its subsequent report on the necessity of federal regulation paved the way for the passage of the Organic Act, which until the 1970s guided management on the national forests.

This legal precedent for the possibility of establishing a Forest Service was one thing; actually organizing it was another. Pinchot, who in 1898 replaced Fernow as the chief of the Division (later, Bureau) of Forestry, is rightly credited with framing the future agency’s bureaucratic structure. But his thinking on this subject was deeply influenced by Sir Dietrich Brandis. Although the German forester had made his reputation by planting forestry in British-controlled India and Burma, in the U.S. he is best remembered for mentoring the young American student he met in Bonn in 1889; and from that moment until Brandis’ death in 1908, the two were in regular correspondence. Brandis convinced Pinchot to attend the French Forestry School in Nancy, advised him on his consulting-forestry business, and offered detailed blueprints for how to establish a national forest service managing large swaths of public land. No letter between them was more important than Brandis’ lengthy epistle in February 1897, asserts Steven Anderson, president of the Forest History Society. Written explicitly to influence the American discussion of what constituted best practices in forest management, Brandis laid out the bureaucratic and legal

apparatus required to create a forest service, the necessity for forestry schools to provide the agency with trained professionals, the role an esprit de corps would play in binding foresters together, and the code that it must embrace: “There must be no secrecy in professional matters,” he advised; “everything must be above board and open to all competent to understand it.”

Not everyone was convinced that a forest service, whatever its ethical character, was necessary. “Conservative” management of forests seemed inconsistent with, perhaps even undercutting of, the financial gains that traditionally came from the “cut-and-run” business model lumber companies had employed for generations; it was, after all, what had determined the celerity with which timber had been harvested in New England and the Mid-Atlantic, the Great Lakes basin and the South. Forestry therefore would be a tough sell to men such as Frederick Weyerhaeuser, and he admitted as much in a speech his son delivered on his behalf to the Forest Congress of 1905. Acknowledging that “[p]ractical forestry ought to be of more interest and importance to lumberman than to any other class of men,” Weyerhaeuser noted that “they have not always appreciated this fact.” But as they become better educated by foresters, notes this magazine’s incoming editor, James G. Lewis, and secured greater tax relief and more fire-protection—governmental action that many conservationists also supported—in turn they would better comprehend and more fully support the establishment of federal and state forestry agencies.

There were international pressures shaping as well how Americans responded to the impact of unregulated timber harvesting on the land and the people it sustained, to their nagging worry that in mistreating the woods they were setting themselves up for a fall. That there was a global dimension to such anxieties was clear in President Theodore Roosevelt’s repeated demands in his annual message to Congress that Americans become much more vigilant in protecting their invaluable natural resources. He made the same case in his 1908 message, referring at length to the devastating soil loss and punishing floods the Chinese were then suffering as a consequence of extensive clearcutting in its hills and mountains. Roosevelt drew on contemporary scientific investigation and George Perkins Marsh, argues James G. Lewis, to reach this conclusion: “What has thus happened in northern China,” the president warned, “what has happened in Central Asia, in Palestine, in North Africa, in parts of the Mediterranean countries of Europe, will surely happen in our country if we do not exercise that wise forethought which should be one of the chief marks of any people calling itself civilized.”

One hundred years later, confronted as we are by the looming threat of global warming and its disturbing set of interconnected environmental challenges, Roosevelt’s plea remains as relevant as it is compelling. His conviction moreover that only through a concerted national effort could Americans resolve the problems they had created is analogous to our twenty-first-century plight: the climatic dilemmas we have generated not only are international in their scope but in their resolution. □

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