

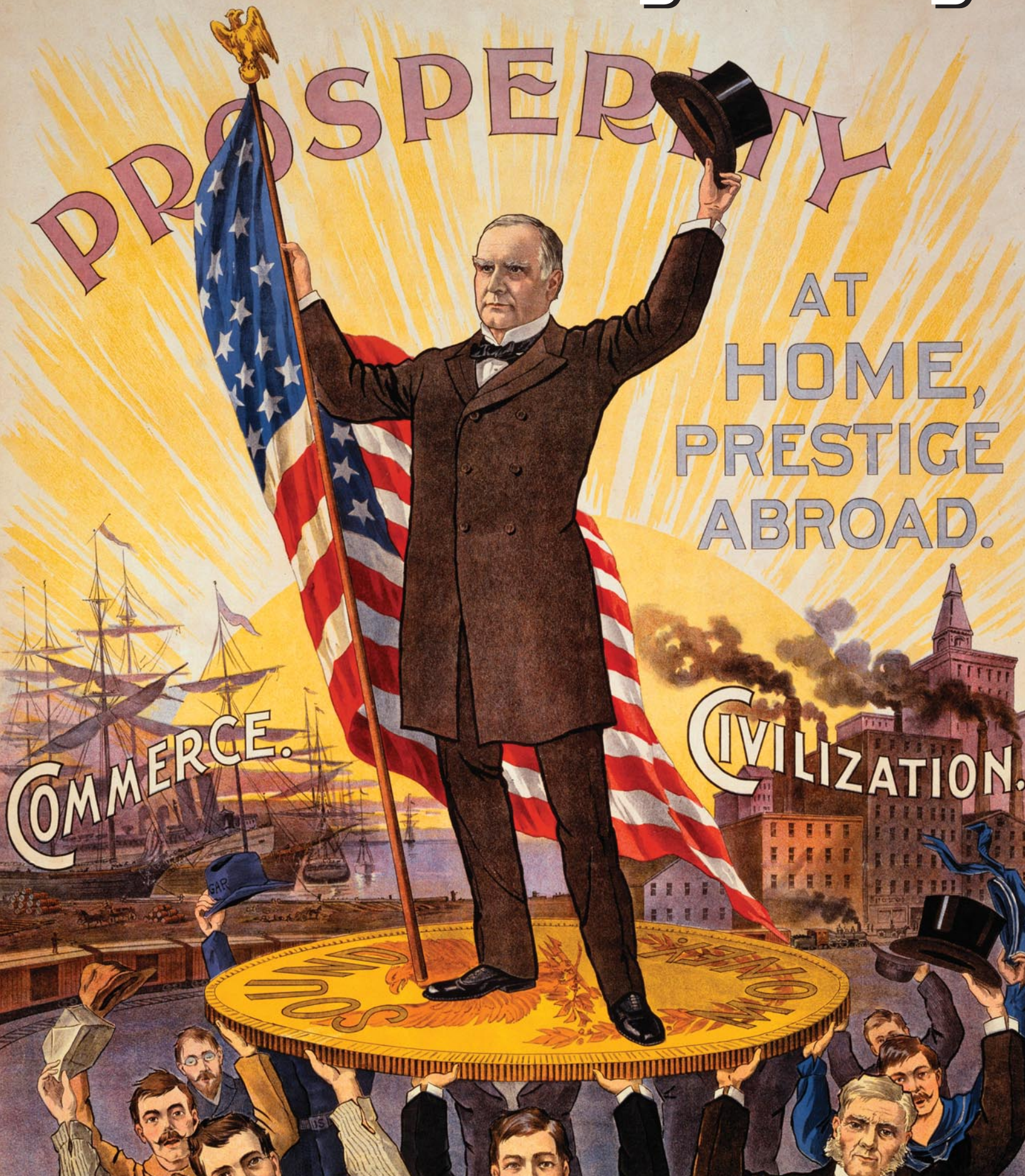
Forest History Today

PROSPERITY

AT HOME,
PRESTIGE
ABROAD.

COMMERCE.

CIVILIZATION.



MESSAGE FROM THE PRESIDENT

Seventy Years Young

STEVEN ANDERSON

In early September 1945 Judge Kenneth G. Brill, president of the Minnesota Historical Society, visited Frederick E. Weyerhaeuser at his home in St. Paul to discuss the state's upcoming centennial celebration. Two other society members joined them: Theodore C. Blegen, dean of the University of Minnesota's graduate school, and August C. Krey, chairman of the university's history department. Over "a few cigars and a little charged water," conversation turned toward the lack of any research center devoted to the history of forestry and forest products. Blegen told the others that no matter where the industry was centered, "its history can be best served from one systematic collection." Historian Charles Twining later wrote, "From that meeting emerged the notion for what would eventually become the Forest History Society."

F. E. died soon thereafter, so other family members, led by his nephews F. K. and Phillip Weyerhaeuser, niece Peggy Driscoll, and another nephew, Ed Davis, along with Minnesota Historical Society superintendent Arthur Larsen, provided early conceptual support. On June 12, 1946, F. K. made the first of three annual gifts that established the Forest Products History Foundation. He chaired the advisory board during the first years and brought into the fold other lumbermen, such as Paul V. Ames, Archie D. Walker, David J. Winton, Edward Brooks, and Corydon Wagner.

Little did these early visionaries realize they had set the stage for a vibrant organization that continues as the Forest History Society. The initial aim—to preserve and publish without prejudice the history of the forest products industry—remains our core mission today. Over the years, our scope has expanded to the broader fields of forest and conservation history. In addition to our central function as a library and archive, our programs now include publication, awards, education, and outreach.

Since its establishment in 1946, the Forest History Society has been a leader and pacesetter in the history field: initiating oral history interviews with workers and leaders in the forest industry in the 1950s; publishing the longest-running journal of environmental history in the world; being among the first organizations to bring environmental science into K-12 social studies classrooms; winning awards for innovative use of the Internet and social media; and producing award-winning documentary films. Part of the reason for this long history of success is our strict adherence to four fundamental principles: strive for academic excellence, advance scholarship, offer collaborative programs, and grant free public access to information.

Ultimately, though, when it comes to keeping a nonprofit organization strong and vital, it takes talented volunteers who commit their time and resources because they believe in the mission.

The annual report included in this issue lists individuals and organizations that have supported the Society for more than 25 years. They represent a "Who's Who" in the forest and conser-



vation community as well as renowned historians and many others who see the value in what we do. It would take all the pages of this magazine and more to adequately recognize everyone who has given so generously of their creative energies through 70 years, but I do want to call attention to a few.

Susan Flader is Professor Emerita in the Department of History at the University of Missouri. She has been a member and supporter for 44 years, including 14 years on the FHS board of directors. As the first female board member, she advocated for, and was appointed to, our first FHS Long Range Planning Committee. Dr. Flader

helped draft a five-year program plan that more fully and broadly articulated the Society's programs. She actively advanced the Society's publications program, including having her book *The Great Lakes Forest: An Environmental and Social History* published by FHS in 1983. Her generosity of spirit continues with her expert counsel to the Society.

Dwight Harrigan's support for the Society began in 1976, when he assumed control of a company started by his father, William B. Harrigan, and turned it into one of the South's premier sawmills. Soon after, he established Scotch Lumber and Scotch Plywood. Mr. Harrigan lent his considerable business acumen to the FHS board and is responsible, along with his sons Chip and Patrick and colleague Tom O'Melia, for 40 years of support for the Forest History Society.

Together, John R. and Marjory McGuire have provided 46 years of membership support. John was chief of the U.S. Forest Service from 1972 to 1979 and an FHS member. Marjory has continued her husband's support since his passing. The Society holds an archival collection for John McGuire including three photograph albums, and through Marjory's generosity, the Society was able to establish the John R. McGuire Endowment for archival maintenance and oral history.

Starker Forests in Corvallis, Oregon, began its support in 1982. Bond Starker served two terms on the board of directors, graciously hosted numerous meetings, and served as honorary chair of the Society's *Stories of the Forest* campaign. The Starker Endowment supports our oral history program and outreach initiatives that help inform public discourse.

We are thankful for these and all FHS members, past and present, for everyone who has donated archival and library materials, and for all who have provided enthusiasm for our work. Above all we recognize the leadership and vision of Rodney Loehr, Woody Maunder, and Pete Steen, who led the Society from 1946 through 1997, and the dedicated staff throughout 70 years who kept the beacon of forest history shining quietly but strongly all along the way. Because of people like them, and people like you who are reading these words today, the Society is well positioned for success during the next 70 years and beyond. □

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ON THE COVER

William McKinley campaign poster.

Courtesy of the Library of Congress.

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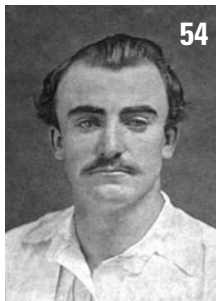


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EDITOR'S NOTE

by James G. Lewis

Last fall I found myself sitting in the hallway of a convention center in Albuquerque, New Mexico. The nearest natural light was about 40 yards away at the opposite end of the hall, shining through the doors. It's ironic because attendees were people who had spent much of their careers working outdoors, in the U.S. Forest Service. They gather every three or four years at the National Forest Service Retirees Reunion to reminisce and to learn the latest news and policy positions of the agency to which they dedicated so much time and energy. It's not uncommon to hear people say they worked for the Forest Service for 30 or 35 years, and a few years ago I autographed my book on the Forest Service as a gift for someone retiring after 50 years with the agency. Fifty years! I just turned 50 this past December; I feel lucky to have survived this long, let alone work at the same place for even a decade. But clearly this gentleman loved what he did, and he's not alone. These folks are so dedicated, loyal, and proud to have worn the agency's famed green uniforms that they've been described as having worn green underwear.

The retirees don't use the term "reunion" lightly. One thing I've learned while studying the Forest Service and have seen in person at these reunions is that the retirees often describe the agency as a family—complete with all its attendant annoyances and dysfunctionality and love and support. Believe me, at this family reunion I've encountered the daffy aunt, doting grandparent, and crazy uncle types. And because I never wore the green underwear, I'll never be fully part of the family. I feel more like a son-in-law than a son, but they make me feel welcome and a part of their family nonetheless. I'm already looking forward to the next reunion three years from now.

In the Forest Service, moving up the organizational ladder often meant relocating every three to five years. After a few moves, an employee would be reunited with friends made two or three stops before, and the relationships would renew and deepen. These folks have bonded in ways that many families never do. That can happen when you're living in a place so remote that the only housing available is a railroad boxcar converted into a cabin and the nearest town is 90 minutes away. You learn to get along and support one another and to work through or around any differences. Your colleagues are not blood relations, but they're family and then some because they've chosen to spend time with one another.

After the reunion ends, I rent a car and head toward Boulder, Colorado, to visit my own family. On the way I stop at the Great Sand Dunes National Park to see this geological phenomenon. For millennia, sands have blown across the ancient valley and piled up against the Sangre de Cristo Mountains to form the tallest dunes in North America. They cover about 30 square miles. The tallest dunes at the park top out at about 750 feet.

After renting a "sandboard" (it's like a snowboard) and walking across the dry riverbed and up onto the dunes, I run into the British family I'd met an hour earlier, and one of them takes

photos with my phone while I attempt to ride. I manage to stay up the whole way! We'd met at a roadside sign display, where I learned that the mom was Welsh and the dad English. I mentioned my Welsh ancestry but we quickly determined that she and I were not related. It didn't stop us from kidding him about Wales's recent defeat of England in the rugby world cup. He reminds us that the English won the more important "contest" a few centuries ago, but wisely concedes that in his house, the Welsh rule.



The historical marker where we had met described how different tribes of Native Americans have long held the mountains and the land sacred. We compare their fate with that of indigenous peoples who lived under the yoke of British tyranny in India and Australia. None of us are proud of the actions of our ancestors, to say the least. What can you do, except learn from the past and try to do better than your predecessors?

That's another lesson I've picked up from studying the Forest Service. Wise land managers want to know what has happened on their land so that they can learn from their predecessors, or from the land itself, and manage for the future. When they come to the Forest History Society for answers, one place they may turn to is this magazine. Having just completed my 10th year as editor (and with this, my 12th issue), I hope that land managers and others searching for answers to historical questions have found some within those pages, or at least enjoyed their search as much as I've enjoyed working on this magazine. I would like to thank the FHS staff for all their contributions through the years, the many authors and their outstanding work that's been so educational and entertaining for me to edit, Sally Atwater and Dianne Timblin for their outstanding editorial work and advice, and our publications designer Kathy Hart of Zubigraphics for making the task of assembling each issue easy and pleasurable and for making the magazine look so damn good. □

A millionaire's dream. A genius's vision. A forester's plan.
Their legacy is still growing.

AMERICA'S FIRST FOREST

Carl Schenck & the Asheville Experiment



At the end of the 1800s, Americans feared the Industrial Revolution's insatiable appetite for wood would cause a timber famine. At what became known as the Cradle of Forestry in America, German forester Carl Schenck and "his boys" provided a blueprint for how to save all of America's forests. Hired by millionaire George Vanderbilt, advised by famed landscape architect Frederick Law Olmsted, and supervised by America's first forester Gifford Pinchot, Schenck introduced the "new" science of forestry and then established the Biltmore Forest School, the country's first forestry school, on the magnificent Biltmore Estate. Now this amazing story is told through *America's First Forest* – an important, new documentary film from the Forest History Society premiering on public television stations in April 2016. The DVD includes the 30-minute featurette *First in Forestry: Carl Alwin Schenck and the Biltmore Forest School*, adapted from *America's First Forest* and ideal for classroom use.

For more information or to order the DVD, please visit www.AmericasFirstForest.org



In the Netherlands, well into the twentieth century, privately owned estates formed the backbone of forest ownership. With one notable exception, political concerns about deforestation led not to strong governmental regulation but rather to cooperation. By examining the contributions of large Dutch estates and the Nature Scenery Act of 1928 to preserving forest cover, we can expand our understanding of private forests' landowners as a whole in forest and conservation history.

THE NATURE SCENERY ACT OF 1928

IN THE NETHERLANDS

James Lord Brice, British ambassador in the United States from 1907 to 1913, called the idea of national parks “the best idea America ever had.” But the concept that not just “nature” as such but also beautiful scenery should be conserved for future generations was not a uniquely American one.¹ Over the course of the nineteenth

century, in much of Western Europe and the United States, scenic landscapes had become the object of public concern, and in the twentieth century the concept of national parks became popular in the Old World, too.

Today the Netherlands, a nation approximately the size of Maryland, has 20 national parks, 18 of which were established after 1989. The Ministry of Agriculture, Nature, and Food Quality, which oversees the country’s national parks, claims they offer “the story of nature in the Netherlands.”² This interpretation overlooks or minimizes the historical role Dutch estates have played in forest and nature conservation.

Though there are numerous historical studies of old European estates, the subject of the conservation policies on estates, with the exception of England and Scotland, has attracted little interest

among environmental historians in North America and Europe.³ Studies of America’s national parks and government policies concerning the protection of nature abound, but their size, ownership, and historical settings differ greatly from the situation on estates and therefore comparisons with parks like Yellowstone or Yosemite are of little use.⁴

Landscape and nature conservation efforts in Europe are older than the introduction of the idea of national parks. They were the concern of the state as well as many thousands of private individuals who owned forested land as part of their landed estates. “Pastoral” nature was the norm rather than the exception.⁵ Moreover, “feudal” estates were the bearers of the idea of pastoral nature as farming became increasingly rationalized and modern over the course of the nineteenth and twentieth centuries. In

BY S. W. VERSTEGEN



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The scenic beauty close to the estate Mariënwaerd, owned by the noble family Van Verschuer, offers visitors stereotypical views of the Dutch landscape. Today, the estate is a full-blown commercial operation.

Europe, glorifying the “noble” past and the pastoral went hand in hand with nature protection.

In this article, I focus on the policy concerning the preservation of forests on landed estates in the Netherlands, with an emphasis on the Nature Scenery Act of 1928 (NSA). This law did not allow fellings without consent. It strongly reduced the inheritance tax for estate owners if they kept the estate intact for 25 years, kept a certain percentage of their land forested, and maintained its condition well. Taxes were even further reduced if the owner opened his estate up to the public. This approach successfully protected many of the landed estates from their demise over the past 85 years. How did this success come about and, as society has changed in many ways since the 1920s, how was the law adapted to these changing circumstances? The Dutch example shows that forest history should involve the history of estates and not confine itself to forest management in a strict sense.

In the United States, governments, be they state or national, wanting to protect forests from overcutting had to protect them from private industry—the big lumber companies. Until the 1920s those companies took little interest in forest management.⁶ So while the national park idea may have originated in the United States, the country lagged behind in forest protection. In contrast, from the early nineteenth century onward, European forest preservation was more of a matter of interaction between governments and private landowners, although outright bans on felling were

not unknown. Given that aristocrats had an important say in politics, this is not surprising. In the Dutch case (as in other European countries as well), not just constraints on private forestry but also stimulating (fiscal) measures proved to be a very strong and effective way of protecting nature and forests without major financial sacrifices for the fiscal administration of a country.

AFFORESTATION IN THE NETHERLANDS

To explain why older and smaller estates are so interesting from a forestry-conservation point of view, we should first consider the following. In many European countries, the nineteenth century was a time of considerable afforestation. In the Netherlands, at the start of the 1800s, only around two percent (around 70,000 hectares, or 173,000 acres) of the land area was covered by forests.⁷ Deforestation became problematic not because of the lack of wood, as the Dutch had been importing wood on a very large scale from Germany and Scandinavia since medieval times, but for ecological reasons. Especially in the southern and eastern provinces, as happened in Denmark and Scotland, sand drifts expanded as a result of ruthless farming practices like overgrazing and heath extraction. The biggest sand drift in the Netherlands was about 2,000 ha (5,000 ac). In some hard-hit regions about 10 percent of the land was lost for economical use.

As in many parts of Western Europe, after the revolutionary Napoleonic era, a new nationalistic mood struck the country. In

the Netherlands, this mood focused on an economic revival and the making of a new golden age. As in the surrounding countries, the “rebirth” of the forest had begun more than a century earlier than in the United States.⁸ The government stimulated afforestation by offering tax exemptions on newly forested lands. Forest cover grew from approximately 169,000 ha in 1833 to 268,000 in 1900 (419,000 to 664,000 ac).⁹ Afforestation would restore degraded lands, including sand drifts and heaths, and make them economical useful once again while also making the country more independent from imports and providing work for the poor.¹⁰ Slowly the forest recovered, but in 1868 forest cover in the Netherlands



Hunting scene in the 1960s on the estate of Den Treek, owned by the noble family De Beaufort.

was still only 7 percent of the land area. The situation was comparable in Denmark (5.5 percent) and Great Britain (5 percent) but quite different from the still heavily forested northern and eastern countries, such as Russia (33 percent), Sweden, and Norway (both more than 60 percent).¹¹ As was the case in Scotland, most of the new forests consisted of rows and rows of monoculture pine plantations.¹² On older, often noble country estates one could find biologically more diverse forests and mature oaks and beeches alongside lanes. From the ecological point of view of forest conservation policies in Europe, such estates might even be more important than the history of state forests.

DUTCH LANDED ESTATES FROM A NEW WORLD PERSPECTIVE

What did such a Dutch forested estate look like? When the Dutch State Forest Service (*Staatsbosbeheer*) before the Second World War calculated the income and expenditure of an average estate, the assumption was that it covered only 250 ha (700 ac), consisted of a country house (not by definition an old one), beautiful lanes, a park and its surroundings (mostly forested), and sometimes hunting grounds. From a heritage point of view, such a privately owned house, park, and its surroundings form an *ensemble*. To make a more illuminating comparison with the New World, the estates protected by the Dutch NSA looked more or less like the old *seigneuries* in Canada or old plantations in the U.S. South, in size as well as in emanation.¹³ The reason is that like those properties in the New World, most of the protected estates in Europe belonged to aristocratic families.

A comparison between Mariënwaerd in Holland, the Oakley House plantation in Louisiana, and the domain of Joly de Lot Binière in Québec might be useful here.¹⁴ In 1951, 252 ha (623 ac) of the former *seigneurie* Mariënwaerd became registered under the NSA.¹⁵ In the center lies “the big house.” (The Dutch also used this expression that we know from southern plantation homes.) The historic estate of Mariënwaerd dates from 1744, and the property once housed a monastery established in 1129.

Today, the estate is a full-blown commercial undertaking: it invites visitors to walk or cycle around the estate and its surroundings. The view offers not just trees and forests but also a near-cliché—a Dutch river landscape. The estate has a conference center, the owners sell “slow-food,” and they rent it out for weddings and parties.

By comparison, Oakley House was a privately owned plantation until it was purchased in 1946 by the state of Louisiana. The house, with its beautiful gardens and surroundings, was restored as a museum in the last century. After the Second World War, Oakley House, with an additional 40 ha (100 ac) of “lush natural setting,” became the center of the Audubon State Historic Site, which offers many attractions to visitors.¹⁶

The owners of Mariënwaerd follow more or less the same policy in attracting visitors as Joly de Lot Binière in Québec and many old plantations in the South by offering a range of activities: weddings, home-grown food in restaurants, tours of beautiful gardens and flowers. Just as in Mariënwaerd, visitors can walk along the riverside (though the St. Lawrence is much bigger than its Dutch counterpart). Just like its Old World counterparts, the present-day Domaine de Lot Binière, situated on the former *seigneurie* Lotbinière, has an interesting history, which is clearly one of its attractions.¹⁷ In Europe as well as in North America, heritage, history, and nature are intertwined.

THE PROBLEM BEHIND THE NATURE SCENERY ACT

As in the United States, by the late nineteenth century, scenic beauty had become a political concern in the Netherlands. In the 1890s liberal members of Parliament worried about the few recreational options for the working poor and townspeople. Industrialization in the Netherlands had had a slow beginning but was in full swing by then, and living conditions for the working class were considered problematic. The NSA has the same roots as the American national parks movement, and in this respect the early Dutch preservation ideas were closely related to the American example.



JULES VAN DER VOORST DE VRIES, THE NETHERLANDS

There are several estates in the Netherlands in the neoclassical style that strongly resemble the plantation landscapes in the U.S. South. The privately owned mansion Maarn, located in the heart of the country and comprising 143 ha (353 ac) when it was accepted as an NSA-estate in the 1930s, is the best example.

The way the Dutch Parliament wanted to handle the preservation of the estates and entice city dwellers to visit them was, as in the nineteenth-century afforestation projects, not by direct control but by tax incentives. These could be either negative or positive and would, it was hoped, induce landowners to open their estates to the public. During the First World War this idealistic proposition mixed with concerns about the future of the estates and especially the safeguarding of wood resources. The Netherlands was not among the belligerents during the First World War, but nevertheless the country had to raise taxes to pay for armaments and troops to safeguard its neutrality. England's blockade of Dutch harbors to prevent trade with Germany hampered imports, and the price of wood soared in the Netherlands. As a result landowners started felling and selling large trees and forests to meet their financial obligations to the state. If the need for cash became even more urgent, owners parceled out and sold their estates.

During the war, the fledgling Dutch society for the protection of nature (*Natuurmonumenten*, founded in 1905) and the Royal Dutch Touring Club raised the alarm. Estates were disappearing at a frightening rate because of the tax burden; inheritance taxes more than doubled between 1911 and 1917. The Dutch problem was more or less the same as in England, where according to the *New York Times* in 1919, many old mansions were sold because of the war:

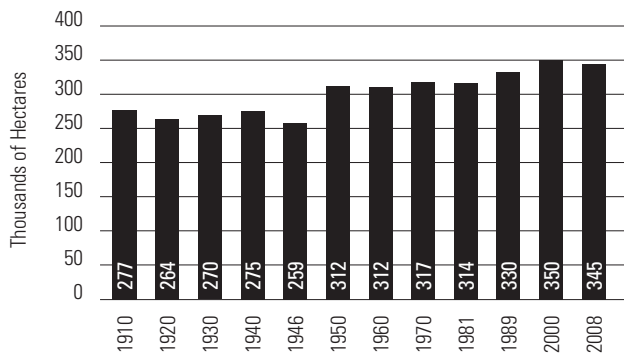
So heavily has the war borne upon the English landowner that he finds himself no longer able to maintain his estates, so, in whole or in part, he is giving them up.... Long lists of estates advertised

*for sale are to be found every day in the London newspapers, and nearly every day there is the brief account of some old family demesne passing after many generations, into strange hands.*¹⁸

During the war, the Dutch government responded by prohibiting the felling of trees without permission. But the government was very reluctant to give tax exemptions to estate owners to protect trees. The Dutch economy relied heavily on foreign trade, so everybody was suffering from the consequences of naval warfare and the disruption of trade. In these circumstances "rich" landowners (even though the yields of their estates were very low) were not in a position to ask for any privilege in taxation and as a result this proposal was turned down. Only after the financial problems eased somewhat in the 1920s did tax exemptions become an issue once more. During the war, the secretary of Agriculture was strongly opposed to helping estate owners because he feared draining state finances; after the war, these fears relaxed. By the 1920s forest cover in the Netherlands was for the first time in many decades falling and almost at its lowest point in the twentieth century, with 264,000 ha (654,000 ac). (See Figure 1)

Because 184,000 hectares, or two-thirds, of the forested area was in private hands, concern over disappearing forested estates grew after the war. As seen in Table 1, a 1925 investigation revealed what these private estates comprised: softwoods and coppice dominated, and 8.5 percent of the privately owned forests consisted of hardwoods, accounting for a very considerable part, maybe even half or more, of the total hardwood cover of the country.²⁰ Also noteworthy from the viewpoint of scenery preservation is

Figure 1. Forest Cover in the Netherlands in Thousands of Hectares from 1900 to 2008¹⁹



that individual trees and trees lining estate-owned avenues made up 13 percent of the total market value of trees and forests.²¹ (See Table 2 on page 11.)

At this critical moment, in 1924, political pressure came from a Communist member of Parliament, Willem van Ravensteyn, son of a successful industrialist, who was also a fervent lover of nature. He was concerned about the many estates being destroyed and argued (not surprisingly) for confiscation by the state. The secretary of Agriculture made good on a promise to look into the matter. In close cooperation with *Natuurmonumenten*, the Royal Dutch Touring Club, and elitist newspapers, a successful lobby was organized to build up pressure on this issue and in the Queen's Speech of 1926, Queen Wilhelmina (i.e., the government) announced the long-awaited law that would stimulate the preservation of privately owned estates, trees, and forests. In the same year, the government stipulated that income taxes on private forests be lifted. The timing was rather close to developments in the United States, where in the 1920s and 1930s many states, and the federal government, wanted to examine whether changes in the property tax could give special considerations to forestlands.²²

Table 1. Privately Owned Trees and Forests in the Netherlands in 1925

Forest Cover	1,000 acres	Percentage
Softwood (pine, fir)	245	53.8
Hardwood (beech, oak, poplar, elm, willow, etc.)	39	8.5
Coppice	170	37.2
Total	454	100.0†

Value of Forests and Trees

Avenues and individual trees	fl. 20 million‡	13
Forests	fl. 134 million	87
Total value	fl. 154 million	100

† The estates accounted for 68 percent of the Dutch forest cover. The other 32 percent was owned by local authorities, provincial governments, and the state.
‡ 1 Dutch guilder in 1925 was worth approximately \$0.40(US).

THE DYNAMISM OF NATURE PROTECTION ON ESTATES

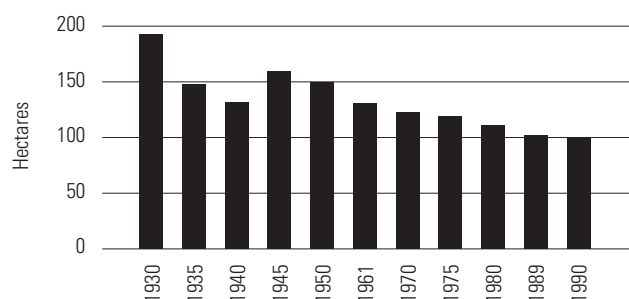
The basic idea behind this fiscal law was that the tax on real estate was based on the market value of the land. Urbanization and land development put upward pressure on values, so taxes weighed ever more heavily on estates close to cities. The Nature Scenery Act stated that if the owner of an estate promised to keep the estate intact for 25 years, taxation value was lowered to the market value of the estate as a complete and intact piece of landed property and not as the sum of individual plots of land open for development. An investigation was carried out to estimate the amount of money involved, and the rough estimate was that lowering the inheritance tax for estate owners would not be problematic because only a low percentage of the Dutch countryside was covered by estates. This guess proved to be correct, and between 1930 and 1948 only a small percentage of the income from the inheritance tax was lost because of the NSA. In practice, the value of the estates was on the whole lowered to 70 percent of its normal value. Since taxes were progressive, the tax rate turned out to be even somewhat lower than that.

Without any resistance whatsoever and with only slight amendments, Parliament agreed to the proposition. There was some skepticism, though, that the law would not work because landowners could still dispose of their estates if they wanted to, no matter what tax provisions were offered. The most vocal opponent of the law was the socialist Henri Polak. He had visited England, was an admirer of the English National Trust, and adopted the slogan of English activists that to protect the English landscape, one had to “kill the Octopus” of urban sprawl. But he did not vote against the proposal because it offered at least some protection. According to him, it was “a first modest step in the right direction.”²³ He feared that his constituency would not understand it if he voted against the law.

At first sight, skeptics like Polak appeared to be wrong because between 1928 and 1956, more than 100,000 ha (247,000 ac) of land and close to 800 estates were protected by the Nature Scenery Act. This was more than half of the privately owned forests in the country. Between 1928 and 1946, the owners removed only 10 percent of this area from the list of protected estates. In the long run, however, the number of protected hectares stayed more or less the same for half a century. The number of protected estates slowly increased, however, as new, relatively small, estates were registered but big ones were removed from the list. The effect was that the average area of a protected estate declined from approximately 200 to 100 hectares. (See Figure 2.)

We can visualize how the removal of estates from the list was

Figure 2. Average Area of a Protected Estate in Hectares

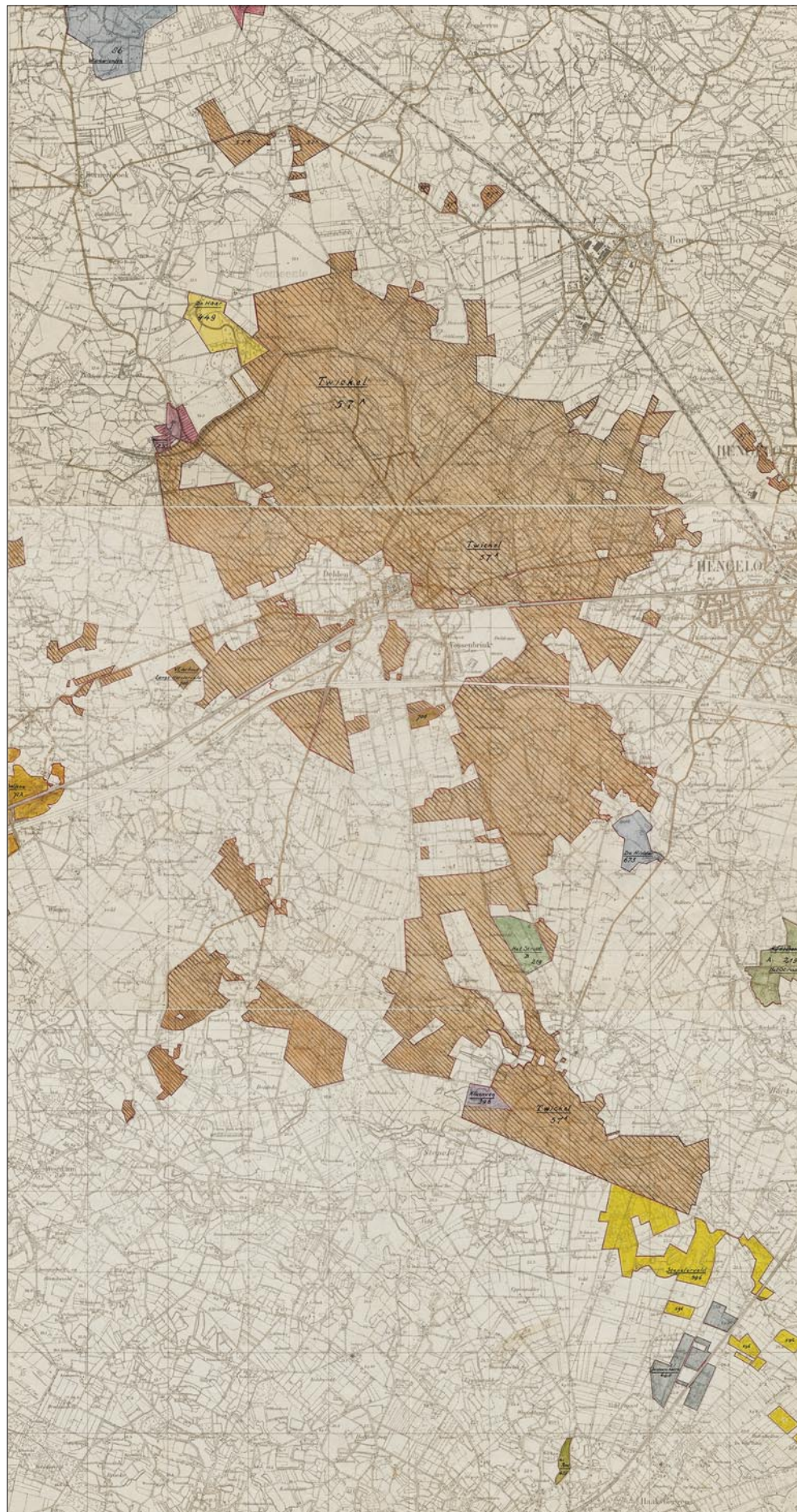


documented on maps. In the 1980s, by sheer luck, a large collection of some 300 maps from the 1950s was saved from a trash container of the Dutch Department of Agriculture. They show all the NSA-registered estates as well as shaded areas, indicating estates that were removed from the list. A famous example is the Castle Twickel and its surroundings.

Why were such big estates removed and how did this seemingly unfortunate trend come about? After the Second World War, trouble arose when institutional investors like pension funds, local governments, or private clinics became more interested in complete estates to enhance their prestige. The previous notion that a complete estate would do less well on the market than the individual parcels proved to be outdated. As a result, new concerns emerged about the future of Dutch estates. One of the proposals introduced in Parliament in the 1960s was to create an English-style “National Trust” that should take care of all threatened estates. At first sight, this was not such a bad idea, since England and the Netherlands shared a common problem: inheritance taxes weighed heavily on the owners. The proposal was debated in Parliament and some special committees, but the general opinion was that the country house scheme of the National Trust was not a good format for the Netherlands. In England, the National Trust really took over the estate from the owner. In the Netherlands, however, the owners did not like the idea of “confiscation,” as they called it. The estate owners were not interested, and neither was the government, and the idea was turned down.

But something had to be done, and in the end, three totally different approaches proved successful. As the concern about the environment and nature protection rose in the 1960s,

The biggest noble estate in the Netherlands is Castle Twickel in the east of the Netherlands. The estate covers more than 4,000 hectares spread over five parishes, and includes agricultural land and meadows interspersed with moorland, fens, and woods.





KATHY HART

As interest in protecting nature rose in the 1960s, organizations for the protection of nature and heritage saw donations dramatically increase, which allowed them to buy estates. In 2000 the famous estate Haarzuilens was bought by Natuurmonumenten.

organizations for the protection of nature and heritage saw donations skyrocketing, which allowed them to buy estates. A very good and recent example of this policy is the famous estate Haarzuilens, a kind of fairytale castle built at the end of the nineteenth century on the foundations of a medieval building and owned by the Rothschilds. In 2000 the estate of about 350 ha (865 ac) was bought by *Natuurmonumenten*. The art collections of the castle, though kept in place, were donated to a separate foundation. Politically, the government on all levels lent a financial hand. A second option was that old (noble) estates passed into the hands of foundations, as had happened to Twickel. That big, old estates were moved off the list of protected estates did not mean that the NSA was not successful, but handing them over to foundations and nature conservation societies offered a better prospect for the historical estates in the long run.

Third, the government decided to lower taxes so that in the end the owners of estates, provided they kept their estates intact, did not have to pay any inheritance tax at all. Finally, besides tax exemptions, subsidies to maintain forests were offered to estate owners who opened up their forests to the public. This last move became a necessity because after the Second World War tourists flooded the forests and estate owners had to spend increasing amounts of money on damage control. As with the national parks in the United States after the Second World War, the very success of the Nature Scenery Act became problematic.

WHAT WAS PROTECTED?

What was protected and on what grounds? The NSA was primarily a law that protected forests and scenic areas, the latter mostly meaning beautiful lanes with old-growth beeches, oaks, and sometimes poplars. If surrounded by trees or coppice, agricultural land

with a “scenic” value could be protected, too, as could historical sites and old buildings (such as farms, windmills, and country houses).

The forest counsel (*Bosraad*), a special committee nominated by the Department of Agriculture during the Great War, undertook inspections to determine whether an estate had enough scenic value to merit tax exemptions to the owner. This committee had a hard time in the early years of the existence of the NSA. Many elderly members of old families wanted to lower the inheritance tax for their offspring and asked for registration. It was not uncommon for members of the counsel to visit four or five estates, by train and car, in a single day. Considering this pace, the *Bosraad* must have been acquainted with the estates; some were rejected because the forest was too young, large-scale felling had just occurred, or the scenery was considered boring, to mention a few reasons for refusal. Estates could vary in size, though, from smaller than 5 ha (12 ac), in which case it was really a kind of park around a country house, up to 2,000 ha (5,000 ac), which was exceptional.

When plotted on a map, one can see that in the 1950s most of the protected estates were situated in what is called the “noble belt,” which runs right across the Netherlands from west to east, leaving the north and the south virtually devoid of (protected) estates. If we take a closer look at the maps, it is very clear that beautiful lanes were an important element in the NSA: much of the protected areas around country houses show small outward lines in diverse directions. In the 1940s and 1950s around half of the protected estates belonged to families of old noble descent who were also the owners of the biggest estates. Most estates were situated in the eastern part of the country, where these families had been living for centuries. However, the problem was that

owners of smaller estates in the urbanized west were not keen on using the tax provisions of the NSA to its full extent. These owners were afraid that opening up their estates to the public would ruin their inheritance. Many complaints were voiced around the middle of the twentieth century about city folks roaming among the trees, damaging plants, carving names in trees, and even harassing the daughters of the landowners. So, these owners could not reap the full benefits of the law.

According to some observers, the owners of the smaller estates in the urbanized west were mostly upper-class bourgeois families—though some were also of old stock—who were not so strongly attached to an estate and even less dependent on its income. Newspapers in the 1930s uttered concerns that parvenus had fewer problems in selling their land and profiting from the urban sprawl that pushed real estate prices upward. For these reasons, estate owners in the west were less interested in the NSA, exactly in the area were the parliamentarians in the late nineteenth century complained about the limited recreational opportunities for the townspeople. In this respect, the NSA was not a great success.

INTERNATIONAL COMPARISONS

What were the ideas behind the NSA? In the early 1920s, the Dutch National Forestry Service organized a survey on the forest literature in European countries and also took a brief look at U.S. nature conservation practices. The survey included 15 documents from the German-speaking countries, France, Belgium, Italy, the United States, England, and Denmark and sought to identify laws and regulations concerning “scenery,” the protection of species and their scientific importance, landscapes, and the conservation of nature and monuments.

The Dutch forest service was especially interested in laws on the national level. Did national governments use tax incentives to protect nature? Did they consider confiscations? Were there lists of what was damaged and what was worth protecting? What obligations could be asked from owners? And the list went on. It turned out that in Germany, nature and monuments could be protected together but scenery was not an explicit concern. The forest service thought the Germans to be rather vague about this. In England the desire to preserve the beauty of estates was captured in the agency’s name: National Trust for Places of Historic Interest and Natural Beauty. Belgian, American, and Italian regulations explicitly talked about scenery and the beauty of landscapes.

The French and Danish regulations were considered useful by the Dutch forest service because they focused on taxes. The French, for instance, had ordained that new forests be free from taxes for a period of 30 years. Denmark was especially interesting

for the Dutch because the situation there looked very much like that at home. Denmark is approximately the same size as the Netherlands, the geography is more or less the same, forests covered just a small percentage of the land, and most of it (74 percent) was privately owned. From 1903 onward, young forests (aged less than 20 years) on poor land were free from land tax, but owners had to maintain the forests in good condition. To stop quick profit taking, new owners of forests were not allowed to fell trees for commercial purposes without the consent of the forest department.

The NSA was a mixture of these foreign regulations. Tax exemptions were known in France; protection of scenery was common in Belgium, the United States, England, and Italy. The stipulation that owners could not cut down trees without permission and maintain their forests in good condition was an idea found in Denmark.

RECENT DEVELOPMENTS

The NSA was successful in protecting hundreds of estates for future generations. But was it also successful in attracting visitors? Visiting protected estates was not problematic. Prices for tickets were low, on the order of 10 or 20 Dutch cents before the Second World War (the equivalent of just a few U.S. pennies), and tickets for a year were even cheaper, relatively, at few guilders a year. These prices were symbolic because the aim of the landowners was not to generate profits but to control access, and many of them stipulated that only persons of good conduct be allowed in. But despite this low barrier, it took a while before the estates began attracting large numbers of visitors. As elsewhere in the Western world, before the coming of the welfare state in the 1950s, hiking in “nature” was an elitist affair. In the 1930s and 1940s an estate that sold more than 200 tickets a year was exceptional. Just as in the United States, mass tourism came late in the Netherlands, but by the 1970s the numbers had risen to an impressive 12,000 visitors per estate a year on average.²⁴

Until the early 1980s private landowners in total owned more forests than the National Forest Service and preservation clubs. (Approximately 55 percent of the forest area in the Netherlands is owned by the government.)²⁵ In the first decade of the twenty-first century, preservation organizations owned more forestland than did private individuals. In the years before the Second World War this was not possible, since these organizations did not have the money to acquire estates on a large scale. (See Table 2.)

With the rise of the environmental movement in the last decades of the twentieth century, the aims of the NSA slowly shifted. Nature protection as such became more important, and

Table 2. Forest Ownership in the Netherlands, 1975–2008

Year	Private forests	National Forest Service	Organizations for Preservation of Nature	Other (e.g., Local Government, State Domain)	Total
1975	38	24	9	29	100
1981	31	29	11	29	100
1991	24	32	12	31	100
2000	22	32	19	27	100
2008	20	33	22	25	100

commercial logging in the Netherlands, less so. As a result, members of Parliament were openly asking whether the NSA should not be changed. It never was entirely clear to what extent a protected estate should be covered with trees anyway, but in the 1990s the question was whether this mattered at all. Despite this criticism the secretary of Agriculture did not give in: the NSA was meant as a “forestry law.” In 1989, after a long debate in Parliament, a compromise was reached: 30 percent of the area of the NSA estate should be covered with trees. Only when 50 percent of the surface of the estate existed of “natural terrains” (i.e., sand, heaths, swamps, lakes, and other terrain without agricultural or commercial uses), the forested area could be as low as 20 percent. Special regulations were made for agricultural lands: they should be surrounded 75 percent by trees—and not just any trees, but characteristic trees that guaranteed the scenic beauty of the place. Of late the Dutch government explicitly stimulates the formation of “new” estates, giving tax reductions to anyone who plants his nouveau-riche estate with trees and opens it up to the public. Helped by the abandonment of farmland, this policy is still successful: today, more hectares than ever are protected (117,000 ha or 289,113 ac in 2007). After more than 80 years, the NSA is still very effective.

CONCLUSIONS

In the Netherlands and in Europe in general, until far in the twentieth century, privately owned estates formed the backbone of forest ownership. Europe differed from North America in that these estates were often run by old aristocratic families and not by commercial lumber companies. In the Netherlands, political concerns about deforestation led not to strong governmental regulation (except during World War I) against the interests of the estate owners but instead to cooperation. Tax exemptions were the carrot (and high inheritance taxes the stick) that proved successful. The National Scenery Act was a fiscal law aimed at protecting forests on privately owned estates. In this respect it looked to some extent like earlier Dutch fiscal measures to stimulate afforestation.²⁶ One can see foreign influences in the use of tax incentives, the name of the law (“scenery”), and government control regarding its maintenance. Temporarily, for a period of some 30 or even 50 years, the NSA was very helpful for protecting forests, trees, and scenery, and continues to do so today in modified form.

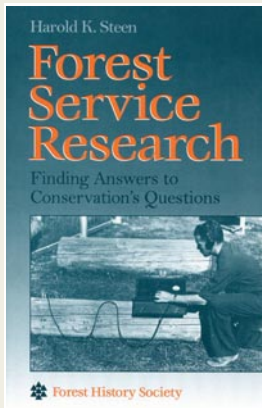
For the history of forest preservation and conservation, accounting for the contribution of old plantations in the U.S. South, *seigneuries* in Canada, and Dutch (and English) estates to forest cover creates opportunities to expand our understanding of forests as a whole. Integrating transnational research on old plantations, *seigneuries*, and estates with research on national parks offers interesting new perspectives for the study of forestry, nature, and historical land management. □

S. W. Verstegen is an environmental historian at the Vrije Universiteit in Amsterdam. Among his many research interests is work on the U.S. South. This article is a summary and modification of his Dutch study on the Nature Scenery Act of 1928 in the Netherlands, which can be found at <http://repository.uvu.vu.nl/verpub>. Remarks concerning the developments around the National Scenery Act are all based on this study. He would like to thank Jan Oosthek for his help.

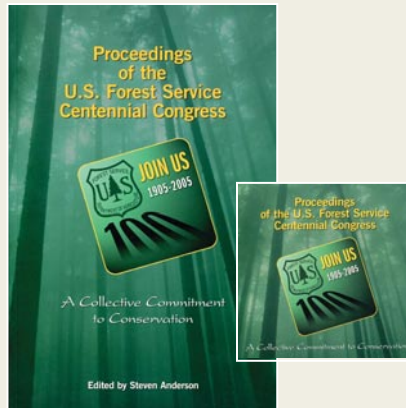
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5. See, for example, Keith Thomas, *Man and the Natural World: Changing Attitudes in England, 1500–1800* (New York: Penguin, 1984), Chapter 5, “Trees and Flowers.”
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11. Williams, *Deforesting the Earth*, 279.
12. J. Jan Oosthoek, *Conquering the Highlands: A History of Afforestation of the Scottish Uplands* (Canberra: Australian National University E-press, 2013).
13. The author visited Rosedown and Oakley Plantation, Louisiana, during a field trip of the American Society of Environmental History conference in Baton Rouge (2007) and Québec and its surroundings following the society’s conference in Toronto (2013).
14. An unscientific but nevertheless interesting comparison of the three estates discussed can be made by viewing the videos available at <http://www.youtube.com/watch?v=vstAg2FsKsg>; <http://www.youtube.com/watch?v=cFNDjFXdCdM>; and <http://www.youtube.com/watch?v=dhEE9edfvKU>.
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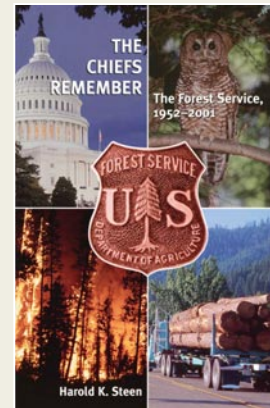
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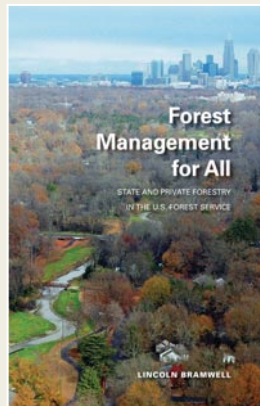
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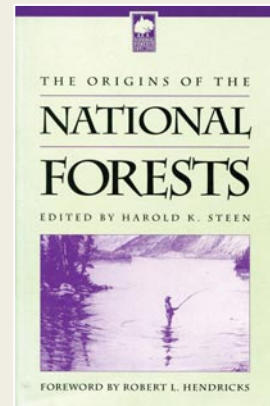
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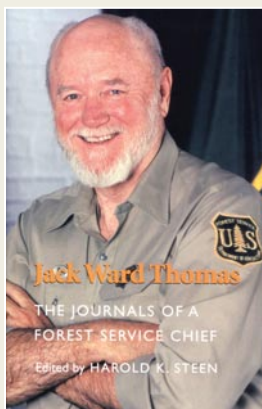
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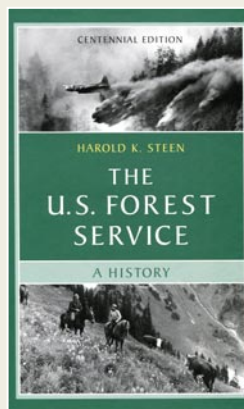
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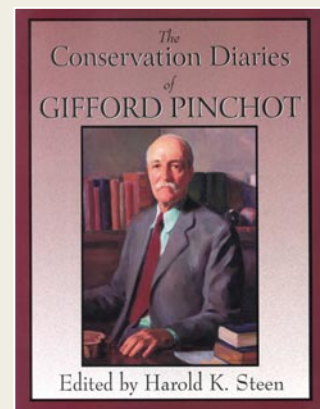
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Gifford Pinchot was not the only wealthy New York scion breaking new ground in the 1890s. With Pinchot's encouragement, Beatrix Jones, a young female friend infatuated with him for a time, found her professional calling and went on to become a pioneer in the field of landscape architecture.

APOLLO AND SHOOTING STAR

*THE YOUTHFUL CORRESPONDENCE OF
BEATRIX JONES FARRAND AND GIFFORD PINCHOT*

One day, while researching the life of my grandmother Rosamond Pinchot in the Gifford Pinchot Collection at the Library of Congress, I came across the name “Beatrix Jones” on a list of his correspondents. The name sounded familiar to me. Among my great-uncle Gifford’s early admirers

had been a young woman, named “Trixy,” who so wanted to impress Gifford that she had memorized the scientific names of trees. Nothing else was known of her. And then it hit me. Trixy was Beatrix Jones Farrand, America’s first female landscape architect and arguably one of the most influential leaders in the history of American planning and design.

“WE CLOTHE OURSELVES IN RAINBOWS”

Gifford Pinchot was born in 1865 to James and Mary Eno Pinchot, wealthy, hard-working New York City philanthropists of the Gilded Age. Gifford lived what appeared to many to be a charmed life. At Yale, his nickname was “Apollo,” the god of the sun. After graduation, he completed courses in forestry at National Forestry School in Nancy, France, and shortly thereafter served a three-year stint as the forester at the Biltmore Estate, where he created the first large-scale forest management plan in the country. In 1895 he returned to Lower Manhattan where, with substantial family support and connections, he hung out a shingle, “Gifford Pinchot, Consulting Forester.” Though reserved, Gifford was no stranger to the attention of women. He was a young man who

appeared to have everything a young woman could hope for: intelligence, kindness, good looks, social standing, a good family, wealth, industriousness, and purpose.

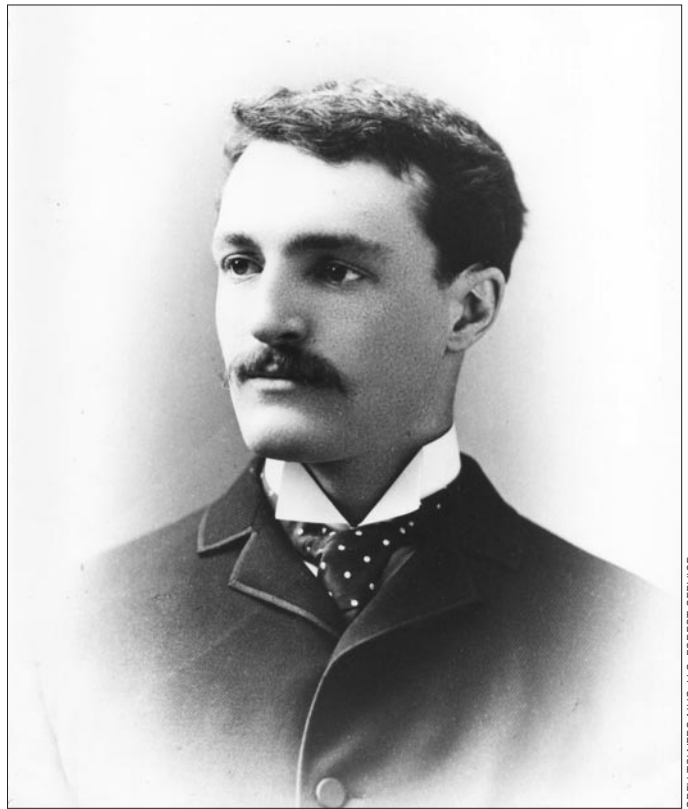
At 26, Gifford started receiving short, sweet missives from a 19-year-old fellow New Yorker who signed her name Beatrix Jones and sometimes “Shooting Star.” Friends and family called her “dear brave Trix.”¹ Engaging, proper, and complimentary, Beatrix’s first letters to Gifford addressed him as “Mr. Pinchot.” Beatrix quickly learned that the one thing Gifford did not have was time. Educated in the classics, she knew her Greek mythology; she was self-assured, and upon encountering challenges, she stayed the course knowing that hers was a story as old as time. Shooting Star was determined to distract Apollo in those short, golden years of youth when, as Emerson said, “we clothe ourselves in rainbows, and go as brave as the zodiac.”²

The letters from Beatrix Jones to Gifford Pinchot, housed in two boxes in the Gifford Pinchot Collection, are some of the few surviving personal letters written by Beatrix Jones Farrand. The reason there are no letters from Gifford Pinchot in the Beatrix Jones Farrand Collection at the University of California is

BY BIBI GASTON



heartbreaking. In 1935, the year Beatrix's mother died, Beatrix set fire to almost all of her personal correspondence, effectively erasing all but her architectural drawings and the record of her professional career. At 63, she was so ashamed of her private life that she would leave no evidence of it except a sheaf of papers found many years later at the bottom of a box. The papers included the divorce decree of her parents, Mary Cadwalader Jones and Frederic Rhineland Jones. "She burned almost everything making token gesture of clean letters to the relevant libraries and literary posterity," one biographer wrote. "Beatrix's parents' divorce hangs like a stormcloud over her story, and yet it explains the mainspring of her life and work."³



Apollo and Shooting Star. The portrait of Beatrix Jones was probably taken around the time she and Gifford Pinchot began their correspondence. His portrait was taken when he graduated from Yale in 1889.

If not for the small collection of her letters housed in the Pinchot papers, we would never know that she knew Gifford Pinchot, much less that she had fallen in love with him, or that he had been an influence on her life. We know that the two corresponded frequently in 1891 and 1892, in the days before Beatrix's father decamped for Paris with another woman in 1893. Although her parents appeared to have separated when Beatrix was about 10 years old, their divorce did not become final until 1896, the year after Beatrix launched her career as a landscape architect with a substantial project in Tuxedo Park, New York.

Beatrix's first letters to Gifford focused on their mutual acquaintances, career plans, and their comings and goings from New York, Philadelphia, Bar Harbor, Asheville, and the Columbian Exposition in Chicago. She paid particular attention to the well-being of Gifford's family, whom she frequently visited—particularly his sister, Nettie, who was often ill, and his mother, Mary, whom Beatrix called "Mousetilla." Almost every letter contains an invitation to a ball, carriage ride, or dinner with the family. Her letters show a longing for approval if not romantic love.

Her parents' divorce would have precluded marrying into Gifford's moneyed, socially proper family. Divorce was unspeakable in New York's nineteenth-century polite society, and Beatrix's father's departure would surely have been a source of family shame. Meanwhile, Gifford's early life was quite the opposite. Pinchot biographers depict Gifford Pinchot's occupation as his preoccupation, a young man who ran his life like a whistle-stop political campaign. According to reports, the "most eligible of Washington beaux" maintained a mysterious reticence and athletic appearance that confounded the chattering classes for two decades;

even the *Washington Star* commented at one point that Pinchot “cares nothing for women.”⁴

Thanks to the small treasure trove of missives scattered throughout two million documents of the Pinchot Collection at the Library of Congress, we are able to map the romantic terrain to show that, contrary to press reports, Gifford cared a great deal for women. There was the “kissable” Maria, who a Yale classmate observed did not bring out the best in Gifford. And then there was George Vanderbilt’s niece, the complex, multifaceted Florence Adele Sloane, who tried to attract the young Biltmore Estate forester by composing long-winded, calculated prose, having “‘boned up’ on scientific matters.”⁵ Previously, at age 19, Gifford had become engaged to Catherine “Kittie” Hunt, the attractive daughter of Gilded Age architect Richard Morris Hunt. The Hunt and Pinchot families traveled in the same circles and Kittie was good friends with Gifford’s sister. To top off what seemed like a perfect confluence of love and commerce, Kittie’s father was designing Grey Towers, the Pinchot family summer home above the banks of the Delaware River, when they became engaged. For reasons lost to history, this seemingly perfect match ended with an amicable parting of the ways.⁶ There was also the doomed romantic relationship with Laura Houghteling, a life-changing love affair of mystical dimensions.

“A LADY OF CONSEQUENCE”

Beatrix and Gifford first crossed paths in childhood. The Pinchot family, who lived at Gramercy Park, was likely to have known the Jones family, who lived just nine blocks away at 21 East 11th Street. Beatrix’s mother, Mary Cadwalader Rawle, was described as “a lady of consequence” and a “firecracker” who made it a point that her only child maintain good relations with Beatrix’s father’s prominent New York relatives, in particular with his sister, Edith Wharton.⁷ Only 10 years Beatrix’s senior, the prolific novelist, arbiter of taste, and garden designer helped nurture the life and career of her niece Beatrix. Aside from her mother, Aunt Edith was Beatrix’s closest relative and one of her greatest inspirations.

From the start, Beatrix seemed a young woman on a mission. Despite the obstacles of a broken home, she studied architectural drawing at the School of Mines in New York City and launched her residential design business for wealthy New Yorkers just blocks from the office of her friend Gifford, the consulting forester.

By age 19, with her father absent and her mother preoccupied as Edith Wharton’s part-time literary agent, Beatrix challenged herself by taking over responsibility for the garden at Reef Point, the family’s home in Bar Harbor, Maine, where she experimented with planning and planting. The land, one biographer asserts, was of almost equal influence on her as any person except her mother.⁸ Although Beatrix had the support of the women in her family, there was little precedent for women in the outdoor professions. Nineteenth-century society’s prevailing expectation for a woman included supporting her husband and raising his children.

Beginning in 1879, Beatrix and her mother began entertaining visitors at Reef Point, whether taking carriage rides into the forest to enjoy the scenery of Mount Desert Island or spending time sharing their garden.⁹ Bar Harbor was the haunt of many who sought the raw beauty of nature, and Gifford was among those who traveled to Bar Harbor to visit family and friends at their summer retreats. According to his desk diary of August 1891, Gifford was not in Bar Harbor to rusticate or socialize with the Jones family, however. He was working on a report for the Phelps-

Dodge Company prior to a business trip in Detroit.

Reef Point was to Beatrix what Grey Towers was to Gifford. Both were touchstones in lives dedicated to nature and the outdoors. Whereas Gifford’s ancestors made their fortune in timber and dry goods, Beatrix prided herself on “coming from five generations of gardeners.”¹⁰ And while Gifford’s focus was the forest and Beatrix’s the garden, each struggled to explain the principles of their respective professions—forestry and landscape gardening—to an uninformed public. Most of their friends, family, and clients had little or no idea what either of them actually did.¹¹

“DEAR MR. PINCHOT”

Beatrix penned her first letter to Gifford in August 1891 from Reef Point, Maine, to thank him for a book he had sent. Acknowledging the book, it appears, was a pretext. “Dear Mr. Pinchot,” she began.¹²

That book is perfectly delightful. I have already suggested to my father several new specimens of tropical trees which I think ought to do well in this climate. Honestly tho’ it was awfully good of you and I am ever so much obliged to you for it....

Do you want to go to Mrs. McClean’s dance this evening at the club? You won’t be following out my instructions unless you do go, and besides I must know if these are your sentiments on the subject of “shop worn.” If by any chance you can’t go, telephone down here, but if we hear nothing to the contrary, we will stop for you at a quarter to ten. You are probably invited after all.

*Sincerely yours,
Beatrix Jones*

We do not know whether Beatrix and Gifford attended Mrs. McClean’s dance or what transpired. Regardless, Shooting Star stayed the course. One month later she wrote Gifford another thank-you note, this time addressing him by his first name. He had given her a magnifying lens for the detailed observation of her beloved Mount Desert Island plants.

Dear Gifford,

Thank you very much for getting me the lens. It was awfully good of you to take so much trouble, but you forgot to tell me how much it cost; and as it was a commission, you remember, I want to pay my just debts, for even Hickory Ghosts do that. It is a very nice one, and it went for a long walk with me yesterday—in fact it went over the mountain that you sneaked out of going up with me, and we had a very instructive day, and I have already found out that I know considerably less than I thought I did.

I am glad that you express a joy, timid or otherwise at having me at Milford in the early part of October, as I thought you would probably write and say you were so sorry but you would have to go away just then to examine something at Kalamazoo or Tahiti. As you are fond of taking the next boat or train whenever I ask you to do anything, as you may perhaps remember!

Gifford Pinchot’s desk diary in 1891 reads like a politician’s campaign plan. In January of that year, Phelps-Dodge contracted Gifford to assess its forested properties in Pennsylvania and the South. While he was in Alabama, his client persuaded him to head to Arizona and Southern California “to study his land and the question of planting it.” The down side of the proposition: “Management expenses. No salary.”¹³ When Beatrix first wrote



652861. BEATRIX JONES FARRAND COLLECTION, ENVIRONMENTAL DESIGN ARCHIVES, UNIVERSITY OF CALIFORNIA, BERKELEY

Throughout her life, Reef Point served as an inspiration, a touchstone, a refuge, and an experimental station for Beatrix Jones Farrand. Her attempt to turn the estate into a horticultural study center failed, but did result in her papers being donated to the University of California at Berkeley.

to him in 1891, her letters do not indicate any knowledge of his western adventure, one that took him to the Grand Canyon and Yosemite Valley. At the time, he was consumed with establishing himself and his emerging profession.

Returning to Manhattan, he spent most of August with his family in Milford, beginning work on his book *A Primer of Forestry* and recovering from his trip. Reestablishing contact, Beatrix wrote to Gifford again on September 23, 1891:

Dear Gifford,

Please excuse me for having been so rude in not having written you before but excuses are nonsense so here goes. Yours received and read with pleasure, also enclosed, please find \$2 in payment of statement in your last. I hope this will catch you before you go to the wilds but I am awfully sorry you are not going to be at home when I come, although to tell you the truth, I never expected to see you, as I told you when you left.

I have been toiling and working very hard at botany lately and the other day found a variety of golden rod (thanks to you and the lens), that had never been found on the island before. Three cheers for me. Also I am making a herbarium of the trees up here, which is most exciting. Day before yesterday I made some good

shooting 23 out of 25 and 42 out of 50 on another target. Also, I have walked up so many mountains lately that I am like you, an Achilles, which is extremely trying.

I wish you joy in your excursion to West Virginia, I hope you will hate it, and wish yourself at home all the time, but I know you well enough to know you won't.

Thank you again for all the trouble you took in getting the lens, it was very nice of you. I am really very sorry I am not to see you at any rate before next summer, but I hope to then.

Yours sincerely,

Beatrix Jones

PS. I enclose you your poem about shop-worn for future use on others.

Beatrix continued sending notes that fall from 21 East 11th Street, at one point inviting him to dine with her family and attend a production of the musical *Alabama*: “We should be very glad if you would come and would feel so grateful to you if you did anything with us that we asked you. Hoping you will be less haughty than usual and come. Yours sincerely, Beatrix Jones.”

Undeterred by his lack of response, she wrote again several weeks later:

Dear Gifford,

If you have nothing better to do and would like to be cheered after the melancholy festivity of a wedding, won't you dine with us this evening at seven o'clock?

Have you seen "An Expert Shot" in the exhibition of Brennan's water colors? It is the little snap shot of the Delaware in all its glory.

Hoping you will be able to come this evening.

Sincerely yours,

Beatrix Jones

Though he allowed little time for frivolity, Gifford did break away for a short trip to Philadelphia for the launch and christening of "the most aggressive vessel of the new Navy," the *New York*. What Beatrix excitedly called a three-day "toot" to Philadelphia, Gifford likely treated as just another campaign stop. His journal does not mention the family that hosted him, the Joneses. Several days later, on December 6, he met with George Vanderbilt in New York. "I had not expected to talk [forestry]," Gifford wrote in his journal, "but he introduced subject and it is decided that I am to make his [working plan] for Biltmore. Spoke about 100,000 acre scheme, and amazed. Am to go to Biltmore with him and a party including Mr. Hunt and Mr. Olmsted about New Year. Object: to get opinion about feasibility of handling tract profitably."¹⁴

At Biltmore, Gifford faced the great challenge of his early career. His focus was on the forest, not on George Vanderbilt's niece, Florence Adele Sloane, or Beatrix, who continued to communicate by offering to send photos of the effect of fire on Mount Desert Island for his just-released *A Primer on Forestry*. In April, she reported that she had just acquired a new typewriter:

April 8, 1892

My dear Gifford,

You may be astonished to get a type written letter from me but you may be proud of this as this is the first letter that I have ever tried to write and I flatter myself that it will be more intelligible than yours. I am so rattled that I can't see straight so please don't whoop and yell as if you do I shall never write you again. I started out so brashly but typewriters are a delusion and a snare. They are so terribly easy to look at and so darned (excuse me but my feelings are too much for me) hard to manage they seem so coquetish and so hard to please as when you punch them they absolutely refuse to move and if you touch them gently they again refuse to play so altogether my doll is stuffed with saw-dust and I would fain weep. So now adieu I must away to feed as the dinner tocsin has rang. In much perturbation of spirit,

Your respectful: Shooting Star.

Beatrix's lighthearted tone apparently fell on deaf ears. In that same month, Gifford had experienced his first romantic encounter with Laura Houghteling, the most curious relationship of his life. Over his parents' objections, Gifford and Laura, who was suffering from tuberculosis, would become engaged. She would die two years after they met.¹⁵ Given the tragic circumstances of his new love, one would have thought that Beatrix's letter would be set aside altogether. To Beatrix, Gifford had responded in an "impertinent" manner:

The next time that you write me such an impertinent letter as to my skill on that noble instrument the typewriter, there will be

such music, and of an unpleasant and discordant sound, as it will consist in your own shrieks of pain, as I apply my fingers to your hair and give it a most profound and strong pull.... Are you going abroad with your respectable family, or is your hauteur now so overwhelming that you refuse to play with anybody who is not a Vanderbilt?

Gifford wrote back apologetically. And in turn, she responded by wanting to let him off the hook. He was busy, of course, creating a working plan for Biltmore. But her impertinence over his impertinence probably made matters worse:

Dear Gifford,

I got yesterday the last of your two penitent epistles—you really needn't be apologetic although I am much pleased at the apologies, wh[ich] again prove you to be one of the finest of the great "Ten."—But really I understand of course that you haven't time to write and so will persist in forcing my epistles upon you, even tho' you may be so proud as to leave them unanswered. Although I shall require occasionally a few words of apology and devotion to keep me up to my standard of unanswered devotion. Really is there any time limit on your affection or do you allow each of the "carbon copy girls" four weeks as a whetter of the appetite—Have you any idea when this cruel war will be over? or is the making of a working plan an uncertain and uncanny piece of business.... I suppose that you will again throw cold water on my advances while Mary makes her special interest [known]. She is so worried for fear that you will elope with the Vanderbilt twins.... You must tell me true if it gives you more pain than pleasure to receive the[se letters]—now adieu fair youth adieu. Don't spare that tree and tell me if the twins have scalped you as I take much interest in the welfare of your soul.

Sincerely always,

Beatrix Jones

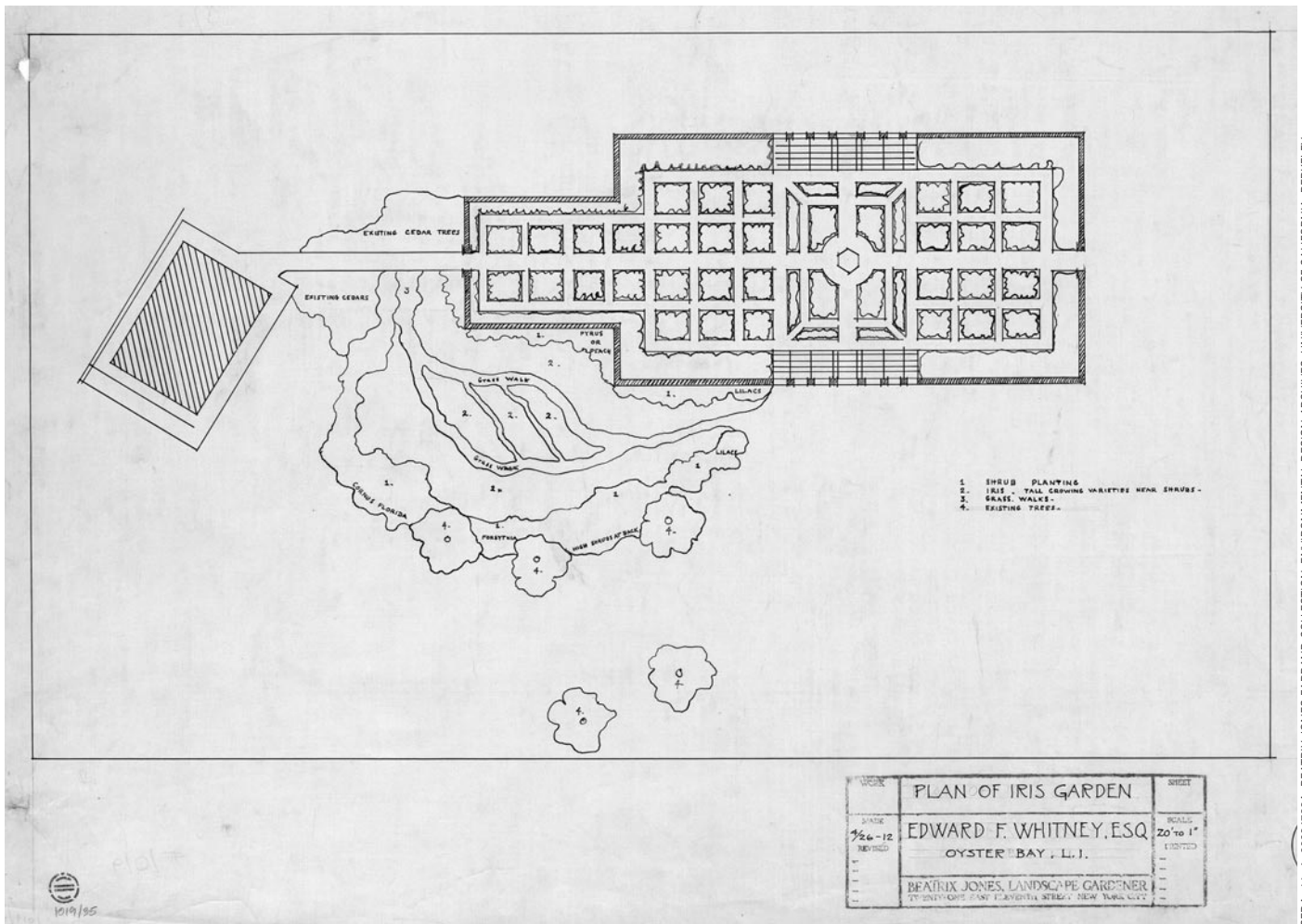
Beatrix knew that she was no match for the competition in Asheville, whoever they were. Though she mentioned the Vanderbilt "twins" (presumably George's nieces, the sisters Florence and Emily Sloane, born a year apart and around Beatrix's age), and a Mary, who might have been their common friend and her mentor Mrs. Mary Sargent and not another rival for his affections, it is unlikely Beatrix knew about Laura Houghteling.

Whatever apologies Gifford offered, Beatrix appeared to move on. Thanks to her mother, aunt, and in particular Mrs. Mariana van Rensselaer, who had been advocating landscape gardening as a suitable profession for women for years, Beatrix dived headfirst into pursuing her calling, landscape architecture.¹⁶

"I WOULD FAIN HAVE WORDS OF WISDOM WITH YOU"

Moving on did not mean giving up, at least not entirely. After all, she and Gifford still shared a common bond: the landscape. Some months later, Beatrix launched a fresh appeal by letting Gifford know that she had decided on landscape gardening as a serious profession, and wondered whether she could meet him at the Columbian Exposition. By that time, she had befriended Mary Sargent and her husband Charles, director of Harvard's Arnold Arboretum, who suggested that she study landscape gardening.¹⁷ "I would fain have words of wisdom with you on the subject of the study of the art also tons of advice," she wrote Gifford.

While the guest of millionaire gentleman farmer Herbert



CEDA_11_4_00634799A, BEATRIX JONES FARRAND COLLECTION, ENVIRONMENTAL DESIGN ARCHIVES, UNIVERSITY OF CALIFORNIA, BERKELEY

During her lengthy career as a landscape architect, Beatrix Jones Farrand received more than 200 commissions. Many of them were for Eastern society families with whom she was friends, like this one for Edward F. Whitney's iris garden for his home in Oyster Bay, New York, created in 1912. Her public commissions included several university campuses and work at the White House.

Wadsworth in Avon, New York, she wrote to Gifford to report that she had been to Chicago for the preview of the exposition. "As to the letter which you were waiting for," she wrote,

"it is here in its entirety and glory—As to what I've been up to lately, I went to Chicago on Mrs. Hunt's party to see the buildings dedicated. On arriving Chicago was took with chills and fever. I never left my bed for the three days of the festivity and consequently saw none of the proceedings which was awfully hard. On the party was Mrs. Professor Sargent, and she and I had a beautiful time talking trees, she said most golden words of you and was amusing about the expedition which her Prof. is taking in Japan. She was also very interesting about the way in which she did her flower sketches, and of the time it took her to do cones and such like. Also she invited me to come and play in the Arboretum with the Prof. She also wanted to know why I did not write for Garden and Forest also why I did not take up forestry as a profession!!!"

Signing off, Beatrix made her second reference to a family member:

"As my Father is abroad I shall spend the winter in New York. Any time you choose to write me 21 East 11 will reach me. All tho'

I must apologize for not having written sooner you'll not be able to complain now.

*Faithfully yours,
B.J."*

It is unknown whether Beatrix and Gifford met in Chicago that fall for the advice she sought, or whether they met again the following year when Beatrix accompanied the Sargents to meet Frederick Law Olmsted for an inspection of Biltmore's arboretum and tree nursery in Asheville. Traveling by way of George Vanderbilt's private railway car, the *Swannanoa*, the Sargents had long since taken Beatrix under their wing. Her visit to Biltmore was no doubt a part of her apprenticeship. Not everyone, however, was as charitable at the sight of Beatrix Jones at work. Olmsted grumpily noted her presence at Biltmore to his nephew John Charles Olmsted when he said that she was "inclined to dabble in Landscape Architecture."¹⁸

Olmsted and others underestimated her professional drive. She was no mere dabbler. In 1895, with encouragement from her aunt and the Sargents, she traveled to Europe with her mother, spending six months immersing herself, as Gifford had, in her chosen profession. In England she met with the great garden designers Gertrude Jekyll and William Robinson and visited

Scotland and, later that summer, Germany and then France, where she studied the gardens of Versailles and the Grand Eaux while her mother met with divorce attorneys in Paris. She returned home and received technical training from tutors at the Columbia School of Mines.

Like Gifford, she hung out her shingle in New York City, opening her first office on the top floor of her mother's home in 1896. She wrote innovative articles in Sargent's *Garden and Forest*, and as Gifford had done while introducing forestry at Biltmore, she advocated for making design decisions based on American conditions: "It must be remembered that parks in European cities are intended for the use of a homogenous population, accustomed for generations to obey authority and respect public property, whereas with us they are for the use of people gathered from all parts of the world, many of whom have been brought up under conditions where there was nothing artistic.... Details of the parks in Europe have to be altered to suit our needs."¹⁹

"I SHOULD SUGGEST THE NAME OF A WOMAN"

Thanks to a small trove of documents in the Pinchot Collection, we are able to place both Gifford Pinchot and Beatrix Jones Farrand in relationship to each other more than 100 years ago. Despite her disappointment that their relationship was never romantic, she pursued a groundbreaking professional track.

The private story of Beatrix and Gifford reveals the gossamer connections of history. Who we are, whom we loved, whom we chose, and who chooses us are the pillars that undergird our success. At 41, Beatrix would marry Yale historian Max Farrand. At age 49, Gifford met his ideal mate, Cornelia Bryce. What little remains of Beatrix's intimate correspondence reveals the vulnerability of her heart. Aristotle wrote: "All that we do is done with an eye to something else." Beatrix's longing for Gifford and Gifford's longing to please his parents suggest such a connection.

By 1900, Beatrix was established as a landscape architect. The romantic terrain of the earlier letters largely forgotten, Gifford, now the chief of the U.S. Division of Forestry and increasingly recognized as the leader of the forestry movement, sent a letter to William A. Boring, who was looking for a landscape architect to design the grounds of the Century Association, one of New York's foremost social clubs:

Dear Sir:

In reply to your letter of January 3rd which has just reached me on my return to the office, I want to suggest the names of Olmsted Brothers, of Brookline, Mass., Miss Beatrix Jones, No. 21 East 11th Street, New York City, and Samuel Parsons, whose address, I believe is the Dakota, New York City. It may seem strange to you that I should suggest the name of a woman, but in this case the character and work Miss Jones is doing justifies it. She is now employed for the grounds of the prospective Episcopal Cathedral near Washington—a piece of work somewhat similar to that you suggest, and for the establishment of the original conditions at Mount Vernon.

Very Sincerely Yours,
Gifford Pinchot

We may never know what Gifford wrote to Beatrix, but her letters confirm that she was not memorizing the names of trees to impress him. Within a few short years after she wrote her coquettish missives, Beatrix Jones had left her romantic competitors to their own devices for a career that spanned 50 years and made American history. □

Bibi Gaston is a landscape architect and the author of The Loveliest Woman in America: A Tragic Actress, Her Lost Diaries and Her Granddaughter's Search for Home (William Morrow/ Harper Collins, 2008). Her latest book is Gifford Pinchot and the First Foresters: The Men and Women Who Launched the American Conservation Movement (Baked Apple Club Productions, LLC, 2016).

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1. Jane Brown, *Beatrix: The Gardening Life of Beatrix Farrand, 1872–1959* (New York: Viking, Penguin Group, 1995), 5.
2. Ralph Waldo Emerson, "The Conduct of Life," in *The Complete Works of Ralph Waldo Emerson*, vol. 2 (London: 1866), 325.
3. Brown, *Beatrix*, 4.
4. Char Miller, *Gifford Pinchot and the Making of Modern Environmentalism* (Washington, DC: Island Press, 2001), 181–84. See also M. Nelson McGeary, *Gifford Pinchot: Forester-Politician* (Princeton, NJ: Princeton University Press, 1960), 32–33, 249–51.
5. Miller, *Gifford Pinchot*, 181–84.
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12. All correspondence from Beatrix Jones to Gifford Pinchot quoted herein may be found in boxes 77, 83, and 419, Gifford Pinchot Papers, Library of Congress, Manuscript Division, Washington, DC.
13. Harold K. Steen, ed., *The Conservation Diaries of Gifford Pinchot* (Durham, NC: Forest History Society, 2001), 43.
14. *Ibid.*, 52.
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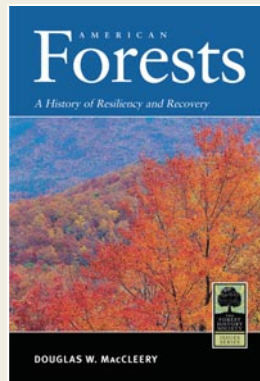
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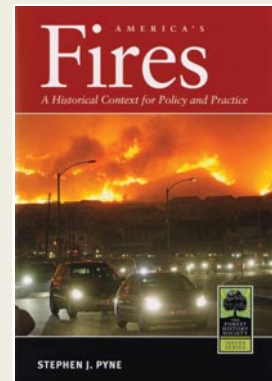
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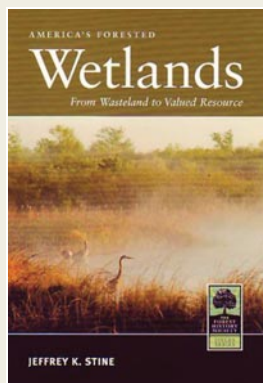
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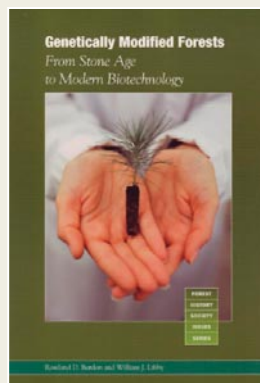
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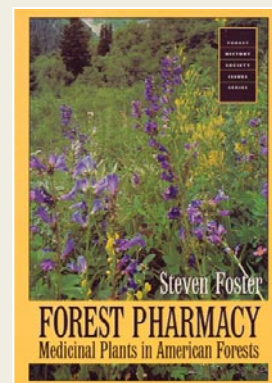
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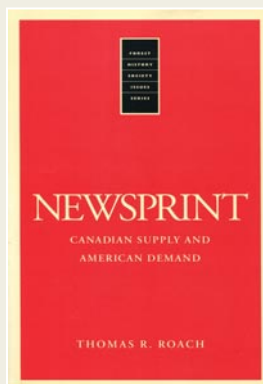
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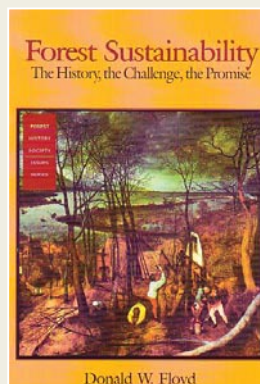
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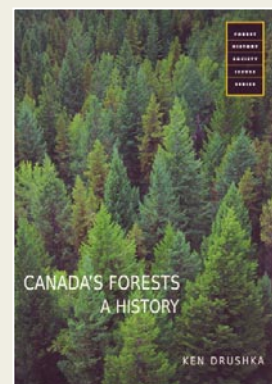
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Canada's Forests
by Ken Drushka
105 pp; 17 photos; 14 figures

Nearly forgotten in Canadian history is the 1919 wildfire that swept through Canada's Prairie Provinces and consumed nearly five million acres. The fire permanently altered lives and the landscape but left behind many unanswered questions.

THE GREAT FIRE OF 1919

*PEOPLE AND A SHARED FIRESTORM
IN ALBERTA AND SASKATCHEWAN, CANADA*

By 1919, most of the homesteads on the best land on the open plains of western Canada had been claimed. Small, isolated villages like the growing community of Lac La Biche, population 300, dotted the map. But mixed farming on good soils in the forest-prairie edge had attracted settlers for more than a decade

who supplemented their incomes by working in logging camps and sawmills and by hunting, trapping, and fishing. Roads and trails were primitive, and travel by team and wagon was slow and difficult. The presence of a rail line was a portent of impending modernity. Then everything changed in Lac La Biche on May 19, 1919.

Swept away in the maelstrom of a raging forest fire which descended upon the place like a furnace blast on Monday afternoon, the little village of Lac La Biche is today a mere smouldering mass of ruin and desolation, and its entire population is homeless and bereft of all personal effects, save scant articles of clothing which could be worn through the nerve-wracking struggle the people were forced to make to preserve their lives.

The absence of a death toll in the catastrophe is due to the heroic measures taken by the citizens, who rushed into the waters of the lake and defied suffocating heat and smoke by means of wet blankets. Only such measures saved many of the women and little children, the intensity of the fire being shown by the burning of the very reeds along the shore and surface of the lake.¹

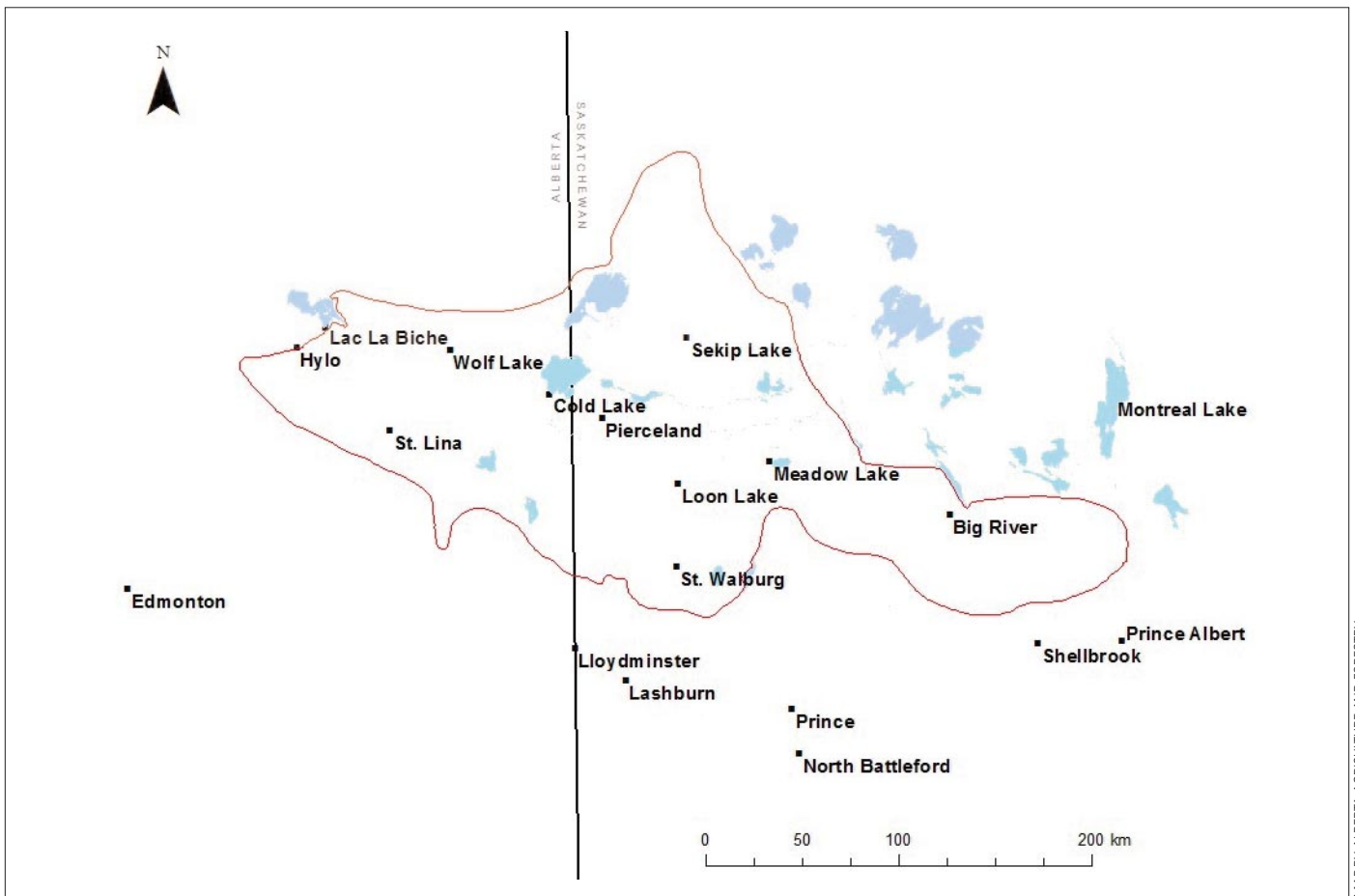
Strong, dry winds created a firestorm on May 19 that over the

following nine days swept through the boreal forest of the Canadian provinces of Alberta and Saskatchewan. It ravaged about two million hectares (nearly five million acres) at and beyond the forest edge, north of the Great Plains of North America. In its path were homesteads, hunting and trapping camps, timber berths and lumber camps, and communities, including the village of Lac La Biche.

The Great Fire of 1919, which was actually a complex of many fires, was not reported in Alberta until the evening edition of the *Edmonton Journal* on May 20. The news was delayed because the fire had burned the telegraph lines. Blackened villagers sent a delegation 200 km (120 miles) southwest to the provincial capital at Edmonton. Their train from Lac La Biche inched along the scorched tracks for about 30 km (18 miles) the morning after the fire until it reached a station with a working telegraph line. The delegation sent a telegram to Edmonton and upon arriving there in the afternoon, "half dead from weariness," learned that relief efforts were already under way.

Despite the substantial loss of property and life, the story of the Great Fire of 1919 has all but disappeared from Canadian

BY PETER J. MURPHY, CORDY TYMSTRA, AND MERLE MASSIE



MAP BY ALBERTA AGRICULTURE AND FORESTRY

The location of the settlements discussed in the article. The area within the perimeter is about 11 million acres (4.5 million ha), of which approximately 5 million acres burned.

cultural memory. Provincial and national history books pay it scant attention even though fire researchers and historians consider it one of the 10 largest and most devastating fires in Canadian history.² In Canada’s Prairie Provinces, it was the first major fire at the wildland-urban interface—a term that had not yet been coined. It arrived during a spring when Canadians’ thoughts were elsewhere. The Great War had just ended six months before and the soldiers were returning. The preceding winter the Spanish influenza epidemic had killed nearly as many Canadians as had the war. Four days before the fire, a general strike had crippled Winnipeg, when nearly the entire working population of the city walked off the job. Overshadowed by such other landmark events and situated not in the prairie itself but on the boreal forest edge, the fire faded from memory.

Based on archived newspapers, local history books, and the memories of residents who lived through it or grew up with its tales, this article revisits the story of the Great Fire of 1919 to document its breadth and consequences. Although it led to the use of new firefighting equipment and eventually to policy change, its importance can best be measured through the changes to the landscape and to local people, who largely abandoned lumbering and biomass extraction and turned to nature-based tourism.

LAC LA BICHE IN 1919

The community of Lac La Biche is on the south shore of the eponymous lake. European settlement on the site began when fur trader and surveyor David Thompson established a trading

post during the winter of 1798–99. In 1853, a Roman Catholic mission was established in Lac La Biche. By the time the Alberta and Great Western Railway (A&GWR) arrived in 1914, the village’s economy was largely natural resources-based: farming, commercial fishing, fur ranching, fur trapping, logging, and sawmilling. Railway builder John Duncan McArthur built the Lac La Biche Inn, hoping to attract tourists to the beaches and fishing. This venture failed, but logging operations supporting his large sawmill in north Edmonton provided important employment during the winter.

Low snowfall in the winter of 1919 gave way to an early spring drought that dried out grass and timber. Then, in May, the village experienced hot, dry winds that desiccated the surrounding region and created a tinder-dry powder keg. On the 19th, fire raced through the village carried “by a terrific wind storm.”³ Two days later, the *Edmonton Bulletin* reported, “Although the fire which wiped out the town of Lac La Biche Monday came in the middle of the afternoon, it was as black as midnight and the only illumination was from the fire itself.” The report, from the local Catholic priest, noted, “The wind was blowing a terrible gale... trees were bent level with the ground with its force and the air was so hot as to be insufferable for miles back.”

From noon, the men of the village were out trying to hold the fire on the south side of the track. It is thick brush all through there and the roar of the fire as it swept through the great Spruce, and the green Poplars was terrific. The bush comes right to the town,

and with the gale that was blowing, the fire carried for miles. When the fire was still a mile and a half away, the flames carried over and set the town afire. At that time the heat was so intense it was searing their faces. It came on first towards the church and then as suddenly as a miracle, the wind changed, and the church and priest's house were saved, and the fire raged on to the little town. The women picked up their children and ran for the lake and there the men kept them covered with wet blankets. Nothing was saved, but their lives, absolutely no bit of furniture, no money, clothes, or food, they simply had to fight for their lives.⁴

right-of-way he cleared passed through stands of timber of sawlog quality. In October 1914 he incorporated the North West Lumber Company (NWLC) and built a large, steam-powered sawmill at the Dunvegan Yards in north Edmonton, which ran until 1933. He also acquired timber berths in the Hylo-Dewar area, about 20 km (12 miles) southeast of Lac La Biche. The NWLC used a Shay logging locomotive to haul logs on spur lines for delivery to his Edmonton mill on the A&GWR. McArthur intended to extend the line 100 km (62 miles) from Dewar southeast to the provincial boundary with Saskatchewan, to draw on the timber and serve the settlements along the way. According to local historian Tom



A steam tractor hauls logs from the Sturgeon River Forest Reserve in Saskatchewan. Large-scale logging on the forest reserve ended after the fire of 1919.

Provincial Police Constable Fred Moses entered a terse note in his journal for May 19: “Cold, fine, Eclipse of the Sun. High wind. Thunder and Lightning. Fires all over. Lac La Biche burnt out. Dark in afternoon.”⁵ There was no eclipse—although Fred Moses was not the only one who thought there was. Many references and recollections in local history books and memoirs declare an eclipse that day, as if Armageddon arrived on the wings of fire and wind. The eerie light and red sun that frightened so many came from the dense smoke bellowing from Lac La Biche and east across much of the boreal plain. Once the fire raced through Lac La Biche, little remained. With property damage estimates at over \$200,000, including the loss of most of the local traders’ and stores’ supplies, the people were in desperate need of clothing and food. The Red Cross, fresh off its Great War efforts and with supplies on hand, swung into action and provided nurses and health services.

A few buildings still stood: McArthur’s Lac La Biche Inn, the Roman Catholic Church, the railway station, and several dwellings.⁶ The women and children stayed in the inn, while the men resided in a tent camp set up by the Royal Canadian Army Service Corps.

J. D. MCARTHUR’S LOGGING RAILWAY

John Duncan McArthur had begun construction of the A&GWR in January 1914. The track reached beyond Lac La Biche by the end of the year. McArthur was astute enough to realize that the

Maccagno, the company employed a thousand loggers to work out of five camps during the winter of 1918–19. But “bustling activities came to an abrupt end when the great fire of 1919 swept through the region. . . . McArthur lost 14 cars of green logs and 42 ballast cars.”⁷

The first report from NWLC’s Edmonton operations was that “as far as they had heard the damage to the standing timber had not been excessive” and they did “not expect to have to suspend operations for more than a few days at the outside.”⁸ However, most of the spruce timber on which they relied had burned, which ended the logging. Parts of the railway grade to St. Lina are still evident, but the tracks were removed after the timber was gone. McArthur acquired new timber berths around Lesser Slave Lake, located northwest of Edmonton. The Great Fire not only wiped out the village of Lac La Biche but took away much of its local logging operations and ended the railway building to the southeast.

ABORIGINAL PEOPLE OVERTAKEN

The citizens of Lac La Biche were not aware that their calamity was just one of many during the month of May, or that their fire was part of a complex of fires burning as far east as Prince Albert, Saskatchewan, about 380 km away—or that the losses they suffered were surpassed elsewhere.

Part of the Great Fire burned across Wolf Mountain, southwest of Wolf Lake. Two Cree brothers, Moniyas and Sakimes, were

on Wolf Mountain hunting bears for their fur, which was still in prime winter-coat condition. As their nephew Isadore Desjarlais explained, “That’s where they met this fire. When the fire came, they both burned down—them two—these two guys that burned up.” The fire spread so fast it could not be outrun, nor was there any place to escape the intense flames. Their brother Paul found their bodies after the fire subsided. He protected the bodies from scavengers, and went back that fall to recover and move them, packing the bones in two small boxes, to the family graveyard at the north end of Wolf Lake.⁹

At Sekip Lake, north of Meadow Lake, about 300 kilometers

and surrounded with no escape, outstripped the simple loss of buildings and chattels at Lac La Biche.¹⁰

THE POLICY BACKGROUND

When Alberta and Saskatchewan became provinces in 1905, they were nominally created equal to the established provinces, with one major exception: the Government of Canada retained ownership of the natural resources, including oil, gas, coal, and forests. Control of forest fires was therefore the responsibility of the Dominion Forestry Branch (DFB) of the federal Department of the Interior.



PRINCE ALBERT HISTORICAL SOCIETY, BILL SMILEY ARCHIVES, PAHS JUL 152

(186 miles) east of Lac La Biche, 23 Cree were camped by the edge of the lake while searching for new areas to hunt and trap. The fire swept their camp very quickly. Theresa Desjarlais, then 10 years old, explained it was about the middle of the afternoon when her father yelled “Fire,” grabbed her by the wrist and pulled her out of the tent.

It was pitch dark but there was a yellow glow which seemed to reach to the sky...balls of fire were falling all around us; the jack pine trees had become ignited and were like big torches. By the time we reached the lake the heat was terrific. Mother had managed to grab a blanket and a horsehide robe from the tent; these Father threw in the water and covered three of us with the blanket.... Firebrands were falling all around us. Some fell on our blanket and we had to keep it dipped in the water constantly to prevent it from burning over us.... We were all badly burned, especially my father. The horsehide which he had thrown over my mother and little sister had burned to a crisp on Mother’s back.

Theresa’s father died the next day of burns sustained while keeping the blankets wet. The survivors spent “two miserable nights” without food or shelter before help arrived and an additional five days before wagons reached them. The trip out took five more days of rough travel and claimed several more lives along the way. In all, 11 died; the 12 survivors “bore the marks of their burns for life.” The Red Cross set up hospital tents in the Meadow Lake area and treated the many burn victims into the fall of 1919. The loss of so many First Nations people, overtaken

In the years before 1919, most of DFB’s effort focused on establishing forest reserves and national parks in the Rocky Mountains. It also issued timber berths and licenses across the forest fringe, such as those operating near Lac La Biche in Alberta and around Prince Albert and Big River in Saskatchewan. By 1919, the established forest reserves in Saskatchewan, including the Sturgeon River Forest Reserve north of Prince Albert, provided timber for the sawmilling industry. The only forest reserve in the boreal forest of Alberta was Lesser Slave, created in 1914. Within the forest reserves, the federal government had a greater measure of control over lumbering activity; despite nominal control outside the reserves, rangers were too few to be effective.

In 1911, timber inspector Letellier O’Connor was commissioned to study the forest protection needs in Alberta’s northern forests. He recommended appointing a chief fire ranger “whose duties would consist of laying out the different districts of the fire rangers in these districts, travelling all over the different patrols and thus keeping an eye on the way in which the different fire-rangers are doing their work...and making any alterations he would consider necessary for the better protection of the timber in question.”¹¹

In 1912, DFB designated the Edmonton Fire Ranging District, an immense area stretching north from the Red Deer River to “as far north as it is practicable.” A chief fire ranger based in Edmonton would be solely responsible for managing fires in all of northern Alberta. The first chief, Robert H. Palmer, began work in May 1912 but served in the Great War until his discharge in April 1919, returning to his job only weeks before the Great Fire. By then



The meager remains from burned homes in Lac La Biche after the fire of 1919.

about 50 seasonal fire rangers each patrolled about 10,000 km² in northern Alberta. Coverage in Saskatchewan's fire ranging districts was similarly sparse. Fire Ranger J. W. Thompson at Prince Albert stated in March 31, 1919, that the fire rangers in his district would be "patrolling their usual beats" in about two weeks. Some of them were old hands but many were just-returned soldiers.¹²

With so few rangers spread over this vast region, there were not enough eyes watching for what was about to come.

SAWMILLS IN SASKATCHEWAN

In Saskatchewan, the Canadian Northern Railway had pushed through to Lloydminster, Battleford, and Prince Albert by 1919. A spur line from Prince Albert to Big River served the sawmilling industry as well as early settlers, many of whom worked in the lumber camps in winter.¹³

In the eastern portion of what would become the 1919 fire area, both large and small sawmills depended on timber from the forest fringe region, including the federal Sturgeon River Forest Reserve, northwest of Prince Albert. The Big River Lumber Company sawmill, known locally as Cowan's Mill, opened in 1908 and had grown to become the largest sawmill in the British Empire by 1911. It could produce one million board feet per day and employed 1,000 men in the forest and the mill. After a mill fire in the winter of 1913–14, the operation was purchased by the Wintons, an American lumbering family from Minnesota, and renamed the Ladder Lake Lumber Company. Their larger Prince Albert Lumber Company sawmill, located farther east on the Saskatchewan River at Prince Albert, could produce 1.5 million board feet per day. It supported 400 employees at the mill and 1,000 employees in the forest.

The Ladder Lake sawmill at Big River was directly in the path of the fire complex of May 1919. Those women and children not evacuated by train were taken by Ernest Gamache to his scow on Ladder Lake while the men stayed behind to fight the fire. An estimated 400 men fought this fire. Heroic efforts over several days saved the town and sawmill, but not the forest. Virtually all the merchantable timber was destroyed,¹⁴ and the lumbering business died from lack of timber supplies: "The forest had disappeared."¹⁵

Although the Prince Albert Lumber Company mill itself was not directly threatened by fire, the company lost most of its timber on the Sturgeon River Forest Reserve. Both companies operated for an additional year using salvaged timber and green timber from unburned patches. The Wintons moved the Prince Albert sawmill downriver to The Pas in Manitoba and renamed it The Pas Lumber Company; the Ladder Lake sawmill also moved to The Pas and then to Lumberton and Giscombe in British Columbia.¹⁶

Smaller operations, including those owned by local homesteaders and First Nations reserves, also experienced heavy losses from the fire. As the mills moved, so did the employees and economy, a fact that did not go unnoticed by the Prince Albert Chamber of Commerce and its many business owners, who had built success on the backs of lumbermen, mill workers, and log drivers through many years of timber harvest. The fire was an abrupt and almost complete blow to the local economy, as local merchants searched for new retail customers. Afterward, though, soldiers continued returning from Europe, ready to accept the federal government's offer of a double-sized farm: a free homestead *and* a soldier grant. They took much of this land along the forest fringe.¹⁷



GLENBOW ARCHIVES, NA-1502-1

Wet sacks and flails were used for backfiring and fighting fires in grassland meadows.

SETTLEMENT AND SETTLERS

Mixed farming in the forested areas required clearing the land to plant crops and establish pastures. Settlers cut and piled the brush for burning; the fires and smoke signaled progress.

The settlers were aware of the risk of wildfire. Experienced settlers burned off open patches and sloughs to remove the dead grass and mitigate potential fire spread as part of their fire-prevention practices in early spring. If a fire threatened, some residents, like Bert Nichols of the Meadow Lake area, saved their property by back-firing. Unfortunately, some of those back-fires could join with the main fire, enlarging it.¹⁸

Most homes were built of logs and roofed with poles and bark or sod—all highly flammable materials. Many settlers cleared the fuels from around their buildings, but a forest fire could drop burning embers on roofs. Grass and peat would extend a fire's reach deep into the earth, while winds spread the conflagration.¹⁹

Wildfires could therefore be devastating. Ivan Nichols of Loon Lake, Saskatchewan, stated it clearly: "In 1919 came the 'FIRE.' It was a blazing inferno that burned settlers' homes, livestock, [and] poultry and ruined many crops. Those settlers who had suffered the least damage helped those who had lost. There were many 'good neighbours' at this time of crisis. It meant starting all over again. Our new house was a 2-story log house, the barn was built with poplar logs. Neighbours helped us get our logs for the house."²⁰

FIRE CAUSES AND BEHAVIOUR

The main cause of the Great Fire is disputed. Constable Fred Moses, who laconically recorded the Lac La Biche fire and the

"eclipse," had also noted spring thunderstorms. However, most springtime fires in this region were of human origin. What was not in question was the availability of fuel. The *Prince Albert Daily Herald* pointed to the massive logging operations, with their slash and debris dried by that spring's hot winds, as the source of the conflagration. Throughout the area dried vegetation and drought-stressed conifers enabled easy ignition and rapid spread. The early arrival of "SPRING!!" as proclaimed the front page of the *Prince Albert Daily Herald* on April 2, 1919, must have looked like an auspicious time to burn.

A. J. Brooks, a homesteader near the Loon Lake, Saskatchewan, remarked on the pleasant spring of 1919: the snow disappeared by mid-March, and he burned his meadows for a distance of a half-mile to reduce fire hazard. In mid-May he and his wife took a trip south by wagon to Lashburn for supplies. He remarked that "plumes of smoke had been rising in all directions for many days, but they were in the distance and we got used to them." Continuing on their southward journey, he wrote, "The next night we stayed with friends on the south side of the Saskatchewan River, and looking north could see that conditions had deteriorated, there was a solid glow to the north, the fire had formed a front. The next day was very windy, and by afternoon the whole northern horizon seemed to have exploded into billowing flames and smoke, high in the sky. In late afternoon the wind increased even more, and swung to the north. That night the Lashburn street lights were obscured by smoke."²¹

This description is consistent with that of the Dominion Forestry Branch district inspector, who wrote that "during the winter there was very little snow and when spring opened up,



The fires of 1919 were typically characterized by dense clouds of smoke frequently described by observers as turning day into night.

the ground was drier and the rivers and lakes lower than they have been for many years in the memory of the older settlers. Very little rain fell in northern Saskatchewan until the first week in June. The month of May was a month of extreme heat and high changeable wind, the temperature for days at a time ranged between 70° and 90°, and the winds, first in one direction and then in another, blew almost [like] a hurricane.”²²

Near the end of April a very large number of clearing fires set by settlers were apparently running at will through the district between the settlement and the timbered areas. From May 19 to 28 these fires spread north in almost a solid line into the forest reserves and fire ranging districts, and given the extreme weather conditions and post-logging debris at the time, efforts to combat them were futile. Early June rains eventually extinguished the fires, and people began to breathe—both in relief, and in clean air—again.²³

These observations in local histories are supported by weather records. Low winter snowfall, early snowmelt, and the lack of precipitation in May contributed to create a widespread spring drought. For example, St. Walburg, Saskatchewan, a small settlement situated midway on the south edge of the fire area, received only 2.9 mm of rain on May 12, a week before the Great Fire. The reported observations from the St. Walburg weather station included remarks of “sand storms” on May 22, “bush fires” on May 23, and “smoky” on May 24.²⁴ Similar conditions occurred throughout the fire area.

A review of the archived daily synoptic weather maps for the Northern Hemisphere for May 10 to May 28 indicates the fire area was under the influence of a combination of dry Arctic air masses with dry cold fronts moving eastward across the provinces. Cold fronts that produce no rain are a threat to firefighters because the winds typically increase and become gusty as the front passes. The winds then suddenly change direction from south to west

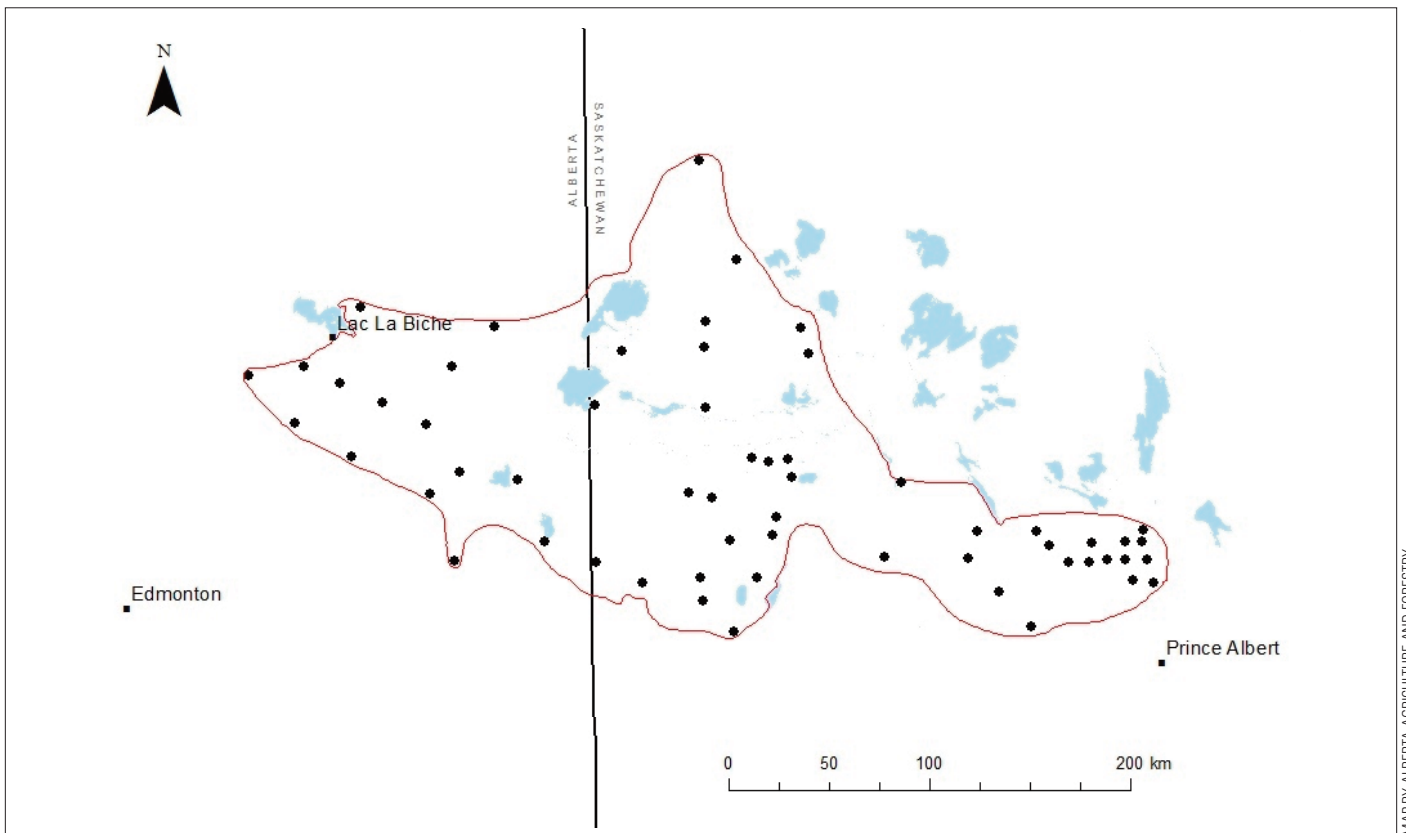
and then northwest. Cold air from the Arctic in spring is very dry because the moisture at the source is frozen. In 1919, the spring drought reduced plant transpiration, further limiting the amount of moisture in the atmosphere. Three fast-moving cold fronts moved through on May 19–20, May 22–23, and May 26–27, creating the days of greatest fire spread.

The lowest observed relative humidity value (5 percent) occurred on May 25 at Battleford. On May 28, the Buildup Index, a measure of the amount of fuel available for burning, climbed to 115—values over 90 are considered extreme and usually do not occur until later in the fire season. During the period of May 19 to 28, the Fire Weather Index, a rating of the potential fire intensity, exceeded 29.5 (extreme) on most days; the highest value, 68.1, was attained on May 26.

It is difficult to plot precisely where the fires actually burned—or where they started. The fire perimeter was estimated by plotting the distribution of points where fire was reported in district histories, fire reports, or interpreted from satellite imagery and forest age-class data. However, as described by a survivor of the fire, Ivan C. Nichols of the Loon Lake area, “It did not burn all the area, but merely patches, then jumped several miles. It would often travel in one direction and then would shift heading in another direction.”²⁵ The result was a mosaic of burned and unburned patches: some fires burned together, a few fires were controlled, and some areas did not burn at all. We estimate that the total area actually burned may have been as much as two million hectares.

THE FIRE'S LASTING IMPACT

The Great Fire of 1919 had lasting effects besides the evident destruction and disruption. DFB introduced aircraft for fire patrols the next year, as advocated in an editorial on June 4, 1919: “The whole northern territory could be patrolled by an aviation



The points of origin and fire activity are estimated from references.

squadron or two and any outbreak of fire would be detected within a few hours of its start.”²⁶ Float planes were assigned to Saskatchewan to take advantage of its lakes, and ground-based planes were used in Alberta. DFB also requested funding for additional field staff, but staffing levels remained essentially the same.

The *Edmonton Bulletin* of July 15, 1919, reported that Lac La Biche was “rapidly rising from the ashes.” The mayor commented that they were creating a new town far and away ahead in the number of modern buildings that existed before.²⁷

For new homesteaders, the burned areas on good soil were a welcome sight. As one homesteader exclaimed: “It was a beautiful sight for a land seeker. The peavine and vetch were waist high, bunches gathering on the end of the buggy pole.”²⁸ With the big timber and brush cleared by fire, it was much easier to open the land for crops. A later homesteader, John S. Rule, remarked poignantly: “When I homesteaded here [in Pierceland] in 1936 my place was littered with enormous spruce deadfalls 36 inches in diameter, the debris of that fire, and many great snags were still standing, broken off thirty or forty feet up.”²⁹

Robert H. Campbell, DFB director of forestry, commenting about 1919, said: “Undoubtedly, the origin of these fires was due in large part to the unregulated use of fire by settlers in clearing their land. Although the province of Saskatchewan [and Alberta] has excellent provisions in its Prairie and Forest Fires Act for the control of settlers’ fires, our [Dominion] rangers have not yet been given sufficient authority under the [provincial] act to enable them to take full advantage of its provisions.”³⁰ This federal-provincial authority gap was closed in 1921 by making Dominion forest rangers and fire rangers *ex officio* fire guardians under the provincial acts.³¹

An interesting outcome from the 1919 fires was the establishment in 1928 of Prince Albert National Park, which essentially replaced the old Sturgeon River Forest Reserve. With the Prince Albert chamber of commerce promising political support and a “tame” riding for Prime Minister Mackenzie King, the federal Department of the Interior converted the old forest reserve, whose timber value was much diminished, into a national park. As the chamber of commerce had hoped, what was once managed for biomass extraction in winter became a landscape of summertime fun for automobile tourists.³²

Perhaps the most profound consequence of the 1919 fire season was the transfer of federal dominion lands to provincial jurisdiction. Federal land management had never been an easy fit—particularly from the perspective of the provinces. With firefighting and administrative costs soaring, in 1921, Prime Minister King determined to rid the federal government of the responsibility and cost for the federal forests in the western provinces. As forest historian Kenneth Johnstone explained, “The federal government could save at least \$1 million per year by turning over the national forests to the western provinces.”³³ Transfer agreements were signed with the western provinces in 1929 for the return of their natural resources, including the forests. The transfer took effect in 1930—right when the two provinces faced far worse disasters than fire: the devastating drought of the Dirty Thirties and Great Depression.

CONCLUSION

Coming as it did in a year when news stories crowded each other off the world’s newspapers, the Great Fire of 1919 not surprisingly all but disappeared from history—despite its ferocity, its range, and its sad deaths. As it did for those who lived through it, who

forever after marked their lives as “before the fire” and “after the fire,” the Great Fire made a clear mark on the land and how it was (and continues to be) used and managed. The two million-plus hectares of forest, the homesteads, and the village of Lac La Biche all recovered but were never the same. The fire marked a turning point for the broader region as well: its economy shifted from extraction to tourism, and from lumbering to farming; fire prevention advanced from too-few foot patrols to aerial fire surveillance; federal-provincial relations changed from wrangling to working together; and governing moved from federal dominion to provincial jurisdiction. The Great Fire’s historical imprint deserves reconsideration and should take its rightful place alongside the other big events of 1919 in Canadian history.

ACKNOWLEDGMENTS

This paper is dedicated to the late Tom Maccagno, who was raised in Lac La Biche and became a lawyer, ardent historian, and conservationist. It was Tom who asked me, when we met in the early 1980s, if I knew the village of Lac La Biche burned down on May 19, 1919. I did not. This led to a number of collaborative studies, including this one. Concurrently, Merle Massie was independently researching the Great Fire as part of her recent doctoral studies at the University of Saskatchewan. We combined our efforts for this paper. PJM □

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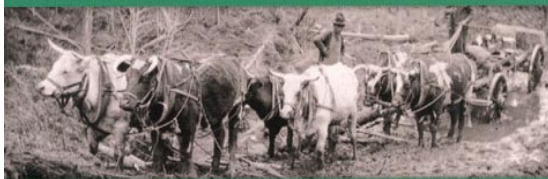


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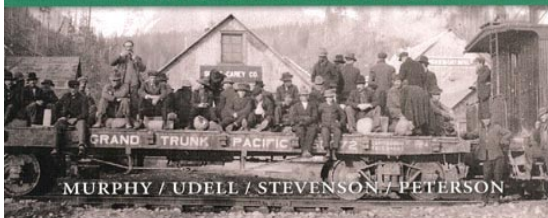
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Though hardly regarded as one of America's greatest presidents, William McKinley (1897–1901) suddenly, if briefly, became the focus of heated political debate in the summer of 2015 after the Alaska mountain bearing his name was changed by President Obama. McKinley's supporters missed an opportunity to illuminate the president's environmental record.

MEASURED IMPACT

WILLIAM B. MCKINLEY AND
LATE-NINETEENTH-CENTURY CONSERVATION

Two things happened to the tallest mountain in North America in the late summer of 2015. On August 30, President Barack Obama announced that he was using his executive power to change Mount McKinley's name back to Denali, a term sacred to the native peoples of Alaska, and in regular use by

them and nonnative residents of the 49th state. Several days later the towering, snow-capped mountain's official elevation shrank by 10 feet; employing more precise measurement tools than those available in the 1950s, when it had last been officially measured, the U.S. Geological Survey (USGS) reported that Denali was 20,310 feet and not 20,320, as had been estimated 60 years ago. Only one of these alterations generated much controversy.¹

Among those perturbed at the presidential renaming was John Boehner, then speaker of the U.S. House and a congressional representative from Ohio, the state from which President William B. McKinley hailed. "I am deeply disappointed in this decision," Speaker Boehner declared in a press release. He then ticked off the reasons why the 44th president should not have summarily changed a designation that honored the 25th: "President McKinley's name has served atop the highest peak in North America for more than 100 years, and that is because it is a testament to his great legacy. McKinley served our country with distinction during the Civil War as a member of the Army. He made a difference for his constituents and his state as a member of the

House of Representatives and as Governor of the great state of Ohio. And he led this nation to prosperity and victory in the Spanish-American War as the 25th President of the United States."²

Other Ohio Republicans joined the fray, including Senator Ron Portman: "The naming of the mountain has been a topic of discussion in Congress for many years. This decision by the Administration is yet another example of the President going around Congress. I now urge the Administration to work with me to find alternative ways to preserve McKinley's legacy somewhere else in the national park that once bore his name."³

Far more intemperate were the reactions of some candidates for the 2016 GOP presidential nomination. Donald Trump tweeted, "President Obama wants to change the name of Mt. McKinley to Denali after more than 100 years. Great insult to Ohio. I will change back!" Not to be outdone was Senator Ted Cruz. "It is the latest manifestation of the megalomaniacal, imperial presidency that we have seen for six and a half years," the Texan fumed. "This administration has been the most lawless administration we have ever seen. And this president routinely

BY CHAR MILLER

disregards the law, disregards the Constitution, disregards the Congress.”⁴

The political agendas driving these verbal pyrotechnics meant that Cruz and crew missed an opportunity to use McKinley’s record on conservation to undergird their claims that his name should not have been stripped from the Alaskan mountain. But even if their staffs had had the time or inclination to develop a historical case for why McKinley deserved this honor, they would have found little evidence in the many biographies written about how the so-called Idol of Ohio supported the conservation movement of the late nineteenth century and defined some of its political options. There are several reasons for that lacuna in the historiography, the most significant being that McKinley was murdered early in his second term. His assassination—as has happened with the scholarship surrounding Presidents Lincoln, Garfield, and Kennedy—has loomed over the broader discussion of his presidency; his sudden demise has framed the narrative arc of his life and career. This was as true of memorial volumes that appeared shortly after he was gunned down in Buffalo on September 6, 1901, as in the more considered political biographies that appeared later in the twentieth century.⁵

McKinley’s contemporaries and subsequent commentators also have focused heavily on his central role in the runup to and the prosecution of the Spanish-American War, seeing in it the launch of a new stage in the evolution of the American nation-state—potent and imperial. Noting that foreign affairs “dominated McKinley’s presidency, and [that] he engaged them in a way that made his office far more powerful by 1901,” historian Lewis Gould drew a notable conclusion: “William McKinley was the first modern president.” This distinction is usually assigned to Theodore Roosevelt, who ascended to the presidency following McKinley’s death, but Gould makes a strong case for McKinley, not least because of “his important contributions to the strengthening and broadening of the power of the chief executive.” Those new authorities apparently did not extend to conservation, forestry, or forests, to cite some of the related keywords that are missing in the index to Gould’s study—and in those of his predecessors. On matters conservationist, President McKinley seems to have been a nonplayer.⁶

Yet from the very moment he was sworn in as president on March 4, 1897, McKinley was embroiled in a furious fight over



In this presidential campaign poster, William McKinley is celebrated and supported by representatives of labor, the military, industry, and others. This is the image his present-day supporters like Speaker Boehner alluded to in their remarks.

actions his immediate predecessor, Grover Cleveland, had taken two weeks before to expand the nation’s forest reserve system. No sooner had McKinley walked into the White House than he was immersed in a formative debate over forest policy and the role that conservation would play in the development of a more forceful executive branch in the management of domestic affairs.

Cleveland had added five million acres to the forest reserves at the beginning of his administration and then stopped to wait for Congress to provide the means to protect them.⁷ After much debate, the National Academy of Sciences formed an investigative commission in February 1896. Its members included Charles S.

COURTESY OF THE LIBRARY OF CONGRESS, LC-USZ04-1329



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This cartoon from 1896 shows President Cleveland standing on the right, holding an axe labeled “Political Wisdom,” in a forest where he has been cutting trees labeled “Gold Standard,” the hot political topic of the 1896 election. Approaching from the left is a procession led by Mark A. Hanna, as drum major, followed by William McKinley, Garret A. Hobart, Benjamin Harrison, and others. The caption reads: “President Cleveland. He blazed the path that they have got to follow.” The image can be seen as a metaphor for the forest reserves, with the trees marked “gold standard” standing in for the forest reserves.

Sargent, Henry Abbott, William H. Brewer, Alexander Agassiz, and Gifford Pinchot. The commission’s official title perfectly describes its charge: The Committee on the Inauguration of a Rational Forest Policy for the Forested Lands of the United States. Because the Forest Reserve Act of 1891 did not stipulate how the reserves would be managed, President Cleveland and other officials wanted the commission to identify a clear, “rational” set of managerial policies. After spending several months touring the western states to assess what is now called the ecological benefits and economic value of the 18 million acres then in the system (and other lands that might be included), the commissioners proposed a sharp increase in the number and extent of the reserves and recommended that these lands be actively managed, leading Cleveland to create 13 new reserves totaling upward of 21 million acres. Dubbed the Washington Birthday Reserves because his proclamation occurred on the first president’s birthday, the set aside came as a shock to local and state governments in the West as well as their congressional delegations, none of which were consulted in advance. The region erupted in anger. The Seattle Chamber of Commerce, for example, confidently asserted that if “there is a man within the boundaries of the State who favors [the reserves] or considers them of any value to the National Government or of any use to the coming generations, he has not been discovered” and denounced Cleveland’s act as “an amazing instance of the

indifference of the East to the facts, conditions, necessities, and rights of the people of the West.” This “galling insult to local sovereignty and its just pride” should not stand.⁸

This was hardly the most opportune time for McKinley to enter the White House, and his ascension was made all the more complicated by an amendment in a pending appropriations bill that revoked Cleveland’s forest reserve proclamation—legislation that Cleveland pocket-vetoed in his final hours in office, deepening the political turmoil. This forced the incoming president to call a special session of Congress, giving the proponents and opponents of the forest reserves an opportunity to plead with the White House, work the cloakrooms of Congress, and draft competing amendments to the new spending bill. Among those working at top speed were members of the National Forest Commission. Gifford Pinchot’s diary records his and others’ negotiations with administration officials, congressional leaders, and one another, a seemingly endless round of politicking, pleading, and persuading. Charles Walcott, director of the USGS, whom Pinchot credited with saving the reserves, made a game-changing presentation to the cabinet on April 2. On entering the cabinet’s meeting room, Walcott recounted, President McKinley “explained to me that [Interior] Secretary Bliss had told him of the legislation, and asked me to explain it to him and to the Cabinet. I did so, and before leaving was assured that it met with his approval.” Three days



PHOTO COURTESY OF LIBRARY OF CONGRESS; CAT. #9632599/MAP BY JUDY DERSH & RUTH WILLIAMS; USDA FOREST SERVICE

By 1897, Presidents Harrison and Cleveland had set aside approximately 39 million acres as federal forest reserves. But 21 million of those acres were in dispute when William McKinley (inset portrait) took office in March of that year.

later, several members of the National Forest Commission also met with the president about the need for legislation to administer the national forest reserves. Pinchot wrote, “President strong for the reserves. He impressed me very favorably.”⁹

The impression was reflected as well in the redoubled energy of McKinley’s administration, particularly Secretary of the Interior Cornelius Bliss, General Land Office Commissioner Binger Hermann, and Director Walcott, in whose offices Pinchot and his peers gathered to rework proposed amendments. With strong signals of support from the White House, including face-to-face meetings with Republican Party stalwarts chairing key committees—notably Senator William Allison (R-Iowa) of the Appropriations Committee and Representative John Lacey (R-Iowa) of the Public Lands Committee—McKinley made it clear that he wanted to put this “bitter controversy” to rest. Presidential intervention thus opened the way for an amendment to the appropriations bill that would “suspend” the Cleveland reserves for nine months and, more importantly, provide the statutory authority for the management of these lands. The legislation that President McKinley subsequently signed on June 4, 1897, granted the secretary of the Interior the power to develop rules and regulations by which the reserves would be managed; the General Land Office was charged with protecting these landscapes so as “to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States.” Without this legislation, and without McKinley’s stout support of it, the forest reserves as an idea and institution would have collapsed. It is hard to imagine, moreover, how out of this potential setback it would have been possible later to develop what we know today as the U.S. Forest Service and

the 193 million acres of national forests it stewards.¹⁰

McKinley also set the context for the manner in which Gifford Pinchot, who joined the executive branch in July 1898 as the fourth head of the Forestry Division in the Department of Agriculture, would pursue his most important goal: the transfer of the forest reserves from Interior to Agriculture, or in the more tactful language that Pinchot employed at the time, the “consolidation” of all the nation’s forest work in his home department and under his bureau’s supervision. In late 1899, Pinchot had begun sounding out colleagues inside and outside government about the feasibility of his idea, even drafting a proposed amendment that would serve as a talking point in these conversations. Although the responses were mixed, James Wilson, secretary of Agriculture, brought the possibility to the cabinet in late January 1900, returning with a piece of good news. The new Interior secretary, Ethan Hitchcock, was “in favor of consolidating in Agriculture Department & McKinley also.” In a follow-up conference between the president and the two relevant cabinet secretaries the next day, McKinley gave Pinchot and Walcott the green light: “Saw Secretary Wilson,” Pinchot wrote, “who said that he & Hitchcock had agreed, after a conference with the president, that Walcott & I should see interested senators.” Their lobbying was set within strict bounds the president established: “The matter would not be passed in the face of determined opposition.” By which McKinley, who had long experience reading the legislative tea leaves, signaled that although he supported the transfer, he would not push Congress further than it wanted to be pushed. As it turned out, neither the House nor the Senate had much interest in pursuing the matter, as Pinchot discovered when he and Walcott made the rounds on Capitol Hill. On February 2, 1900, after ally Senator Addison Foster (R-Washington) conveyed how many negative votes he

had tallied, Pinchot conceded: “This kills it for this session.”¹¹

Much of this jockeying was out of the public eye, as was President McKinley’s strategic approach to the management of federal politics. This is consistent with what Pinchot, for one, appreciated about the chief executive, who emerges in the forester’s accounts as thoughtful, well informed, and unflappable. About one of the strategy meetings Pinchot attended in the White House, he observed, “As McKinley, quiet and unruffled, came into the Cabinet Room where we waited, almost the first thing he said was: ‘Everybody who comes here brings a crisis along.’” Defusing such tensions was among McKinley’s virtues, Pinchot believed. Another was that the president did not shirk from the opportunity to expand the forest reserves, despite knowing that vocal opposition to them remained in the nation’s capital and out West. In the spring of 1898, McKinley redesignated portions of the public lands along the central coast of California, creating what in time became Los Padres National Forest, and in central Arizona, establishing the forerunner of the Prescott National Forest. One year later, McKinley added three more forests, the Gallatin in south-central Montana, the Gila in southwestern New Mexico, and the Tahoe in the central Sierra of California. Although these additions were much smaller in number and extent than those of his predecessors—Benjamin Harrison put the initial 13 million acres into the system, and Grover Cleveland added 26 million—McKinley’s five forests, which totaled a more modest seven million acres, marked a significant turning point in the history of public lands management in the United States. These were the first forests that at their origin were under direct regulatory control of rangers employed by the Department of the Interior, as required by the 1897 Organic Act. Theodore Roosevelt would add upward of 150 million acres to the National Forest System, building off his predecessor’s precedent.¹²

One of the forests Roosevelt enlarged was the Los Padres, where a scenic feature offers a rebuttal to those decrying President Obama’s decision to erase McKinley’s name from a very tall Alaskan mountain. Deep in the forest’s rugged backcountry rises McKinley Mountain, located in the San Rafael range in Santa Barbara County. Though smaller than Denali (it tops out at 6,220 feet), it lies in a national forest that McKinley actually established, noted Roy Harthorn in the *Los Angeles Times*. “Instead of lamenting the renaming of Mt. McKinley to Denali in Alaska—a place far removed from any of his actual accomplishments—those seeking geographical recognition of President William McKinley’s environmental record can find a more meaningful one here at home in our own backyard.” After all, Harthorn explained in a fittingly measured epitaph for a president whose conservation record has not always received its due, what “matters more than the name is McKinley’s contributions, which are the longer lasting.”¹³ □

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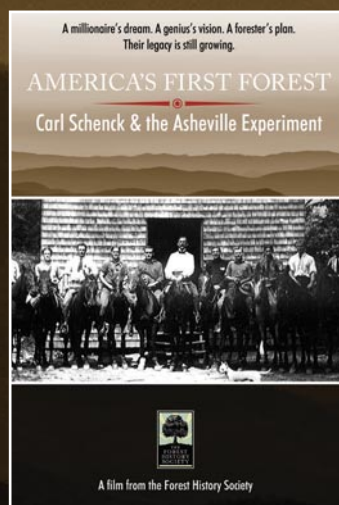
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"I soon realized that German forestry was as impossible of success in the United States as was Indian or Swedish forestry. A brand-new sort of forestry was needed."

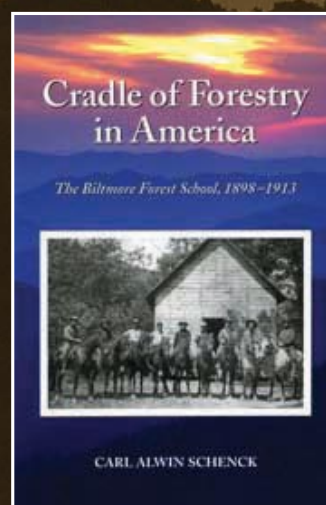
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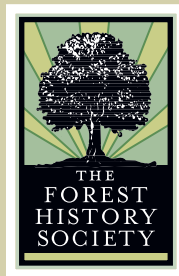


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—From the Foreword by R. Scott Wallinger and Steven Anderson

The names of the founders of the American conservation movement—Marsh, Olmsted, Pinchot, and others—are familiar to many readers, but the less obvious tie that binds them is their religious roots. Nearly every one of them either had grown up in New England Congregationalism or was no more than one generation away.

FARMS, FORESTS, AND PARKS

*AND THE CONGREGATIONAL QUEST
FOR AN EQUITABLE AND SUSTAINABLE SOCIETY*

N *Niagara* created a sensation when the painting first went on exhibit in May 1857. Standing before the seven-and-a-half-foot-wide canvas, the viewer feels precariously perched above currents rushing to the edge of the precipice. The eye follows the rim of Horseshoe Falls as it curves back to

reveal the full power and majesty of the plunging water. More than 100,000 people came to see Niagara Falls with “everything but the roar,” paying 25 cents apiece for the privilege. Thousands more ordered copies of the forthcoming chromolithograph. In two tours abroad the painting amazed Britons as much as it had Americans. No higher tribute could have come than art critic and philosopher John Ruskin’s astonished praise of the “truthfulness” of the painting’s unprecedented portrayal of moving water.¹

The artist who could convey the grandeur of nature so convincingly was no Transcendentalist but rather an orthodox Congregationalist, Frederic Edwin Church, of Hartford, Connecticut. While *Niagara* brought the ambitious young painter the international fame he craved, it also drew him into the nexus of leaders of the nation’s nascent movement for conservation, forestry, agricultural improvement, and parks. With almost all of them he

shared descent from Puritans who dwelt in the valley of the Connecticut River. It was no accident then that this movement rested on moral foundations laid two centuries earlier in a zealous quest for an equitable and sustainable society.

CHURCH AT THE CRADLE OF CONSERVATION

In 1879, landscape art connected Church with the very birthplace of the conservation movement, the estate of George Perkins Marsh’s boyhood. Wealthy lawyer Frederick Billings was looking to buy some paintings by Thomas Cole, the founder of the Hudson River School of landscape painting. He contacted Church, who acted as broker after Cole’s death for sales of paintings still in the family’s possession. Billings needed appropriate paintings to decorate the Marsh house, which he had bought in 1869 upon his return to his picturesque hometown of Woodstock, Vermont,

BY MARK STOLL



NATIONAL GALLERY OF ART, CORCORAN COLLECTION, 2014.79.10

after a successful law career in gold-rush San Francisco. He acquired three Cole landscapes and hung them alongside paintings by Hudson River School artists Albert Bierstadt (whom he and his wife had met in California), Asher B. Durand, Sanford Gifford, John W. Casilear, and John F. Kensett. Later he added works by Church himself.

The Puritan aesthetic values behind the art of Church (from Puritan-founded Hartford, Connecticut) no less than in the works of Cole (from the old Puritan stronghold Bolton, Lancashire, England) mirrored the estate's Puritan landscape. Marsh's house, the grandest residence in Woodstock, "was set into a moral landscape that represented the old Vermont values of thrift, good craftsmanship, and success handsomely but not vulgarly expressed," biographer Robin W. Winks noted.² For Billings as for Marsh, the moral landscape evoked agricultural improvement, forest conser-

vation, and appreciation of nature as the handiwork of God and as a resource for social improvement. Billings had read Marsh's conservation classic *Man and Nature* when it came out in 1864 and now dedicated himself to making the author's former home and estate a monument to conservation. He established a model farm, still operating today as the Billings Farm and Museum. As a member of the Vermont State Forestry Commission, Billings would write most of its 1884 report. In one of the first and most successful efforts at forest restoration, he reforested denuded Mount Tom overlooking Woodstock. Billings built carriage roads for public recreation and in effect transformed Mount Tom into a public park.

Just a year before he brokered the sale to Billings of three Coles for the Marsh house, Church joined a different restoration project of much greater scale than Mount Tom: creating an international park around Niagara Falls and restoring the natural beauty of its



Frederic Church's ambitious painting Niagara led to his involvement with the nation's leading advocates and creators of parks, forest conservation, and agricultural improvement, including Frederick Billings and Frederick Law Olmsted.

banks. Probably inspired by Yosemite Park's establishment five years earlier, Church first suggested a park at the falls around 1869. Frederick Law Olmsted, friend to both Church and Billings, mounted the campaign to make the park a reality. Church had known Olmsted, a distant cousin, in Hartford, where both had attended the same school and Center Congregational Church.³ Olmsted had become principal designer and builder of New York's Central Park in 1857. When corrupt politicians ousted him from his job as overseer of park construction in 1862, he found employment in California managing the Mariposa mine near Yosemite Valley, where he worked with Billings, the mine's lawyer.

Billings helped make sure that Olmsted sat on the first Yosemite Park Commission in 1864, for which he designed a plan for its

development (though it was never carried out). He also facilitated commissions for Olmsted for the designs of the campus of the new University of California in Berkeley, a park system for San Francisco, and the plan for the new city of Tacoma, Washington. Olmsted returned to New York in 1865 to resume work on Central Park. By the time of the Niagara campaign, he was the nation's greatest and most influential landscape architect.

These men—Church, Billings, and most especially Marsh and Olmsted⁴—were members of the first two generations of Connecticut Valley Congregationalists who brought about the American conservation program. With the exception of the German-born foresters Bernhard Fernow and Carl Schenck, nearly every leading conservationist either had grown up in New England



From left to right, George Perkins Marsh, Frederick Billings, and Frederick Law Olmsted. Their conservation careers developed in close parallel, starting with agricultural improvement and later expanding to forests and parks.

Congregationalism or was no more than one generation away. Drawing from the ideals of the Puritan community and inspired by a vision of a righteous republic, they advocated forest conservation as part of a larger agenda that included parks and agricultural improvement. The American conservation movement was born in the elegant steepled churches rising above the greens of Connecticut Valley towns.

IMPROVING THE LAND

The conservation careers of Billings, Marsh, and Olmsted developed in close parallel, starting with agricultural improvement and later expanding to forests and parks. Conservation sprang up from a seed of worry about the decline of New England farming and with it the New England town. Although agricultural reformers arose in all sections after 1820, Connecticut Valley Congregationalists, often educated at Yale, led the movement for scientific agricultural improvement. They put their faith into advancement in new agricultural methods pioneered by experimental farms, educational institutions, and experimental stations. They informed farmers of the latest advances and inventions through publications, government agencies, and agricultural colleges.⁵ Nowhere does the evolution of the conservation and parks movements appear more clearly than in the career of Church's friend and kinsman Olmsted, who had been a gentleman farmer pursuing horticultural experiments on Staten Island before he ever thought about designing a park.

Conservation rested on foundations of the Calvinist and Puritan ideal of improvement of one's land and possessions, which explains why Congregational agricultural improvement was so moralistic and why ministers played such surprisingly prominent parts. American scientific agriculture began with Congregational minister and Yale graduate Jared Eliot, born in Guilford, Connecticut, to a prominent family of ministers. A critic of religious and political divisiveness, Eliot defended the ideal of an orderly and righteous commonwealth and extolled New England

towns' beneficial effect on morals, industriousness, and order.⁶ Improvement of New England's stingy soils, he was sure, would preserve moral order. Keen to use his talents for the public good, between 1748 and 1757 he published essays about his observations and in 1760 gathered them into the first American book on agriculture, *Essays upon Field-Husbandry in New England*. Eliot discussed agricultural techniques and inventions, including his plans for a simplified version of Jethro Tull's new seed drill.⁷

A half-century later, competition from the newly settled Northwest Territory, where farmers reaped abundant harvests from fertile lands, threatened the political and moral economy of New England towns. Agricultural improvers mustered with the weapons of science and education to battle twin evils: New England's poor soils and the emigration of its young to the disorderly, godless frontier. Local elites and farmers experimented with crops and methods, and monthly journals informed farmers of agricultural advances. Thomas Green Fessenden, the son of the Congregational minister of the Connecticut River town of Walpole, New Hampshire, founded the *New England Farmer* in 1822, one of the earliest and most influential American agricultural journals. Jesse Buel founded and edited *The Cultivator*, America's leading agricultural periodical, and authored several books on agriculture before his death in 1839. Born in Coventry, Connecticut, in 1778 and raised in Rutland, Vermont, after 1790, Buel echoed the words of Protestant theologian John Calvin to proclaim it the farmer's religious duty to improve the soil: "The new system of husbandry... regards the soil as a gift of the beneficent Creator, in which we hold but a life estate, and which... we are bound to transmit, UNIMPAIRED, to posterity."⁸

Hence it was particularly appropriate that Olmsted, after a single semester at Yale taking courses from the school's first science professor, Benjamin Silliman, decided in 1846 on a career as a modern scientific farmer, the first step on a winding path to an illustrious career as the nation's first landscape architect. As an ambitious novice, Olmsted sought advice at the Albany office of

Buel's successor, Luther Tucker of *The Cultivator*, for which his father had been the Hartford agent.⁹ Born in Vermont to Connecticut natives, Tucker had recently founded *The Horticulturist* and would found *The Country Gentleman* in 1853. By good fortune, there Olmsted met Andrew Jackson Downing, whom Tucker had recruited as editor of *The Horticulturist*. From his Staten Island farm, Olmsted corresponded with Downing, sent contributions to *The Horticulturist*, and bought plants from Downing's nursery.¹⁰

To supplement agricultural journals, Buel and others supported a national government agency to aid farmers, an effort that came to fruition in 1839 under the direction of Henry Leavitt Ellsworth. This native of Windsor, Connecticut, was a graduate of Yale, a founder of the Hartford County Agricultural Society in 1817, and the first commissioner of the U.S. Patent Office in 1835. The new agency, the U.S. Bureau of Agriculture, collected and distributed seeds for farmers, published agricultural statistics, and engaged in chemical, botanical, and entomological research. Its successor, the Department of Agriculture, was created in 1862 and organized along lines proposed by Buel a quarter-century before.¹¹

Along with journals, agricultural schools arose in New England to teach useful, improving knowledge to farmers and mechanics. In 1824 two Yale graduates, Josiah Holbrook and future Congregational minister Truman Coe, established the first, the Agricultural Seminary in Derby, Connecticut.¹² In the following decades, a hodgepodge of agricultural and industrial schools sprang up across the country. Congregational minister and Illinois College professor Jonathan Baldwin Turner campaigned for a national system of land-grant colleges. Born in Templeton, Massachusetts, and educated at Yale, Turner believed that agricultural improvement served religious purposes and would also hasten the Millennium.¹³ Connecticut-born Senator Lyman Trumbull of Illinois persuaded Congressman Justin Smith Morrill of Vermont to sponsor the Morrill Land-Grant Act of 1862, which passed with vital lobbying assistance from Congregational minister Amos Brown.¹⁴ Over the next three decades Morrill introduced many bills in the House and then Senate to expand funding until, by century's end, 48 land-grant agricultural colleges had been founded. Morrill retired to Vermont in 1898 as a gentleman farmer, living in a Downing cottage and surrounded by Downing-inspired gardens.¹⁵

To further experimentation for improvement of farming, George W. Atherton campaigned for agricultural experiment stations in states with land-grant colleges, which the Hatch Act funded in 1887.¹⁶ Born in 1837 in Boxford, Massachusetts, and educated at Yale, Atherton was inspired by Yale professor Samuel W. Johnson, a Kingsboro, New York, native of Connecticut ancestry,¹⁷ who established the nation's first agricultural experiment station in 1875 at Wesleyan University in Middletown, Connecticut, before it moved to Yale two years later. As Yale president Arthur Twining Hadley said, "The whole system of agricultural experiment stations may well be regarded as his monument."¹⁸ The Hatch Act spread experimental stations across the nation.

In 1867, Olmsted began a long relationship with Cornell, an early land-grant college whose campus he designed and which employed one of the most energetic and prolific agricultural reformers of the age, Liberty Hyde Bailey.¹⁹ Bailey's father was a Congregationalist, native of Vermont, and prize-winning Michigan farmer who raised his son on an intellectual fare of the Bible, *Pilgrim's Progress*, *Paradise Lost*, and Charles Darwin. As horticulture professor at Michigan State Agricultural College, Bailey in 1888 was offered a chair in horticulture at Cornell's new Hatch Act

experimental station, from which he made Cornell's agricultural program the foremost and largest in the nation. He was one of the instigators of the extension system that would bring advanced agricultural practices to local farmers. To keep bright young people from leaving the farm, he endeavored to educate rural children about the natural world around them so that they would love and appreciate it. A major proponent of the nature-study movement, he wrote monthly pamphlets for distribution to elementary teachers. He founded and edited *Country Life in America* and *Cornell Countryman* to make rural life more attractive. President Theodore Roosevelt asked him to chair his Country Life Commission, and Bailey wrote most of its 1909 report. He was also convinced that good farmers were religious farmers. In his best-known and most philosophical book, *The Holy Earth* (1915), he wrote, "If God created the earth, so is the earth hallowed; and if it is hallowed, so must we deal with it devotedly and with care that we do not despoil it, and mindful of our relations to all beings that live on it."²⁰

FOREST CONSERVATION

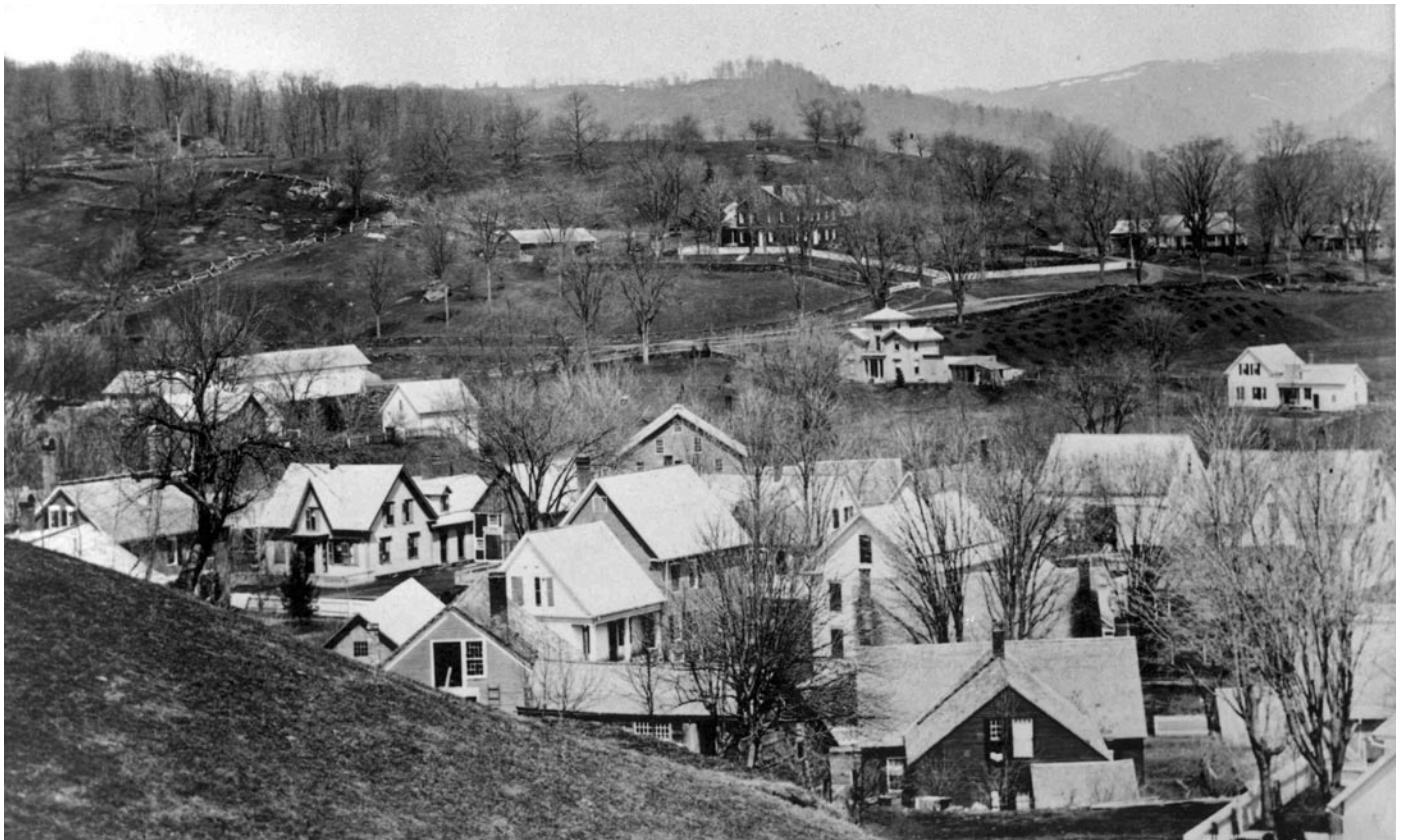
Concern for agriculture extended to woodlands. Every farm needed a woodlot for fences, lumber, and fuel. In this way, American forestry and conservation emerged from concern for preserving the agricultural resource base for New England towns, which in colonial times for the same purposes had passed ordinances to regulate timber cutting. Billings's reforestation of Mount Tom complemented his model farm, while Olmsted's horticultural experience prepared him to choose and place trees, bushes, and flowers in his park designs and led him to an interest in forestry.

Similarly, Billings's hero Marsh had discovered forestry and conservation during his efforts to bolster declining New England agriculture and New England towns. His *Address Delivered before the Agricultural Society of Rutland County, Sept. 30, 1847*, laid out the prospect for further improvement of American agriculture, which he linked to civilization and social progress. To this commonplace observation Marsh added the need for "the introduction of a better economy in the management of our forest lands." He lamented how, "in the physical geography of Vermont, within a single generation," terrible changes had occurred:

*The signs of artificial improvement are mingled with the tokens of improvident waste, and the bald and barren hills, the dry beds of the smaller streams, the ravines furrowed out by the torrents of spring, and the diminished thread of interval that skirts the widened channel of the rivers, seem sad substitutes for the pleasant groves and brooks and broad meadows.*²¹

After two decades of thought and research, Marsh addressed these issues in *Man and Nature*, widely recognized by historians as the single most powerful and influential work in the history of international conservation. Marsh, too, descended from Connecticut forebears who had journeyed in 1636 with Thomas Hooker and the Churches and Olmsteds from Massachusetts to found Hartford. Born in 1801 in Woodstock, Vermont, Marsh spent nearly half his 81 years far from New England, serving in Washington, D.C., as a politician and in the Ottoman Empire and Italy as a diplomat.²²

Marsh's international, cosmopolitan outlook and reputation should not obscure their origins in quite provincial concerns and values. His wife remembered him as "the last of the Puritans"²³



By 1864, when George Perkins Marsh published *Man and Nature*, the area around his home was deforested (above). After Frederick Billings purchased the farm in 1869, he eventually replanted Mount Tom behind the house (shown below in 1890), constructed trails and carriage roads, and opened the area to the public for recreation. Today, the National Park Service maintains the house and land as the Marsh-Billings-Rockefeller National Historic Park.



BILLINGS FAMILY ARCHIVE, WOODSTOCK FOUNDATION, WOODSTOCK, VT

and as a promoter of New England's "intellectual, moral, and material prosperity. He regarded New England as the mother who was chiefly to form the character of the rising States of the West."²⁴ However, he observed in dismay as Vermont farmers struggled to survive economic pressures that led them to overcut their forests for timber and then overgraze their hilly meadows during the Merino sheep craze. Treeless mountains baked in the sun and eroded in the rain. Fish died as clear streams turned muddy. Towns declined as their young people sought out richer western lands. Not agricultural improvement, Marsh thought, but Puritan-style regulation of timber, grazing, and fisheries would solve Vermont's problems.²⁵ While a diplomat in Italy, Marsh wrote down his argument in *Man and Nature*. He drew examples from his extensive travels in the devastated landscapes of the Holy Land and the Mediterranean but he took his key insights from observations of his home state. Hoping to preserve New England villages from ruin, he argued for preservation of forests. Forests, in addition to supplying wood to future generations, would maintain the purity and flow of water and prevent soil erosion.²⁶

Marsh's Congregational roots thoroughly informed the book, with its epigraph from a sermon by Congregational minister Horace Bushnell and its outbursts of Puritan moralism. The righteous farmer and citizen must give heed

to the necessity of restoring the disturbed harmonies of nature, whose well-balanced influences are so propitious to all her organic offspring, of repaying to our great mother the debt which the prodigality and the thriftlessness of former generations have imposed upon their successors—thus fulfilling the command of religion and of practical wisdom, to use this world as not abusing it.

Marsh warned, "Man has too long forgotten that the earth was given to him for usufruct alone, not for consumption, still less for profligate waste."²⁷ With Calvinist, Miltonic overtones, he noted that "man, who even now finds scarce breathing room on this vast globe, cannot retire from the Old World to some yet undiscovered continent, and wait for the slow action of such [natural] causes to replace, by a new creation, the Eden he has wasted."²⁸ Man had been a poor steward, and would be surely called to account for neglecting the welfare of future generations.²⁹ With forests, of course, considering the very long period needed to regenerate woodland, the need to plan now for future generations was paramount.

Billings was far from the only son of the Connecticut Valley to answer Marsh's call to action. Having read *Man and Nature*, Franklin B. Hough, born in Martinsburg, New York, to a native of Connecticut, supervised the 1865 state and 1870 national censuses of New York, whose falling timber production alarmed him. Hough's pivotal paper "On the Duty of Governments in the Preservation of Forests" for the 1873 meeting of the American Association for the Advancement of Science, citing Marsh, noted the need to plan for future generations but the lack of incentive for individuals to do so. He proposed popular education on the economic value of planting trees, forestry schools to train educators and engineers, and government regulation of forests, all of which came to pass. Hough emphasized protection of Adirondack forests, having sat on a legislative commission to study their preservation in 1872. His actions were instrumental in the creation under Governor Grover Cleveland in 1885 of a state forestry commission and the Adirondack and Catskill forest

preserves. The federal government tapped Hough in 1876 to assess the state of the nation's forests, and in 1881 he became the first chief of the new Division of Forestry in the Department of Agriculture to advise farmers on care of their woodlands. The following year he helped organize the American Forestry Congress and edited the *American Journal of Forestry*.³⁰

In 1883, American Forestry Congress vice-president Nathaniel H. Egleston succeeded Hough. Another Marsh disciple, Egleston was a native of Hartford, graduate of Yale, and Congregational minister of the great Puritan theologian Jonathan Edwards's old church in Stockbridge, Massachusetts. Egleston had come to forestry through his interest in improving rural life and the New England village was his paradigm. His 1878 *Villages and Village Life: With Hints for Their Improvement* recommended planting trees in towns for beauty and in the countryside for utility.³¹

In 1886 Bernhard E. Fernow, born and trained in Prussia, replaced Egleston as head of the Forest Division. The first professional forester to hold the post, Fernow redirected the Division of Forestry away from advising farmers and toward managing forests under federal control. He played a role in the passage of the Forest Reserve Act of 1891, which provided for reservation of federal forested land from public sale, and the Organic Act of 1897, which defined the purpose of the forest reserves and mandated their management and protection and was sponsored by South Dakota Senator Richard F. Pettigrew, native of Vermont.³²

In the meantime, Olmsted took an interest in forestry that would have major consequences for American conservation. Olmsted had worked with Billings in California when Billings read *Man and Nature* in 1864, and surely knew the book. His 1866 proposal for the grounds for the land-grant Massachusetts Agricultural College, now the University of Massachusetts at Amherst, assigned the hill on the site for forestry demonstration.³³ Olmsted repeated Marsh's points when he published a report on the Chicago fire in *The Nation* in 1871.³⁴ Then, in 1888, George W. Vanderbilt, son of neighboring Staten Island "farmer" William H. Vanderbilt and grandson of railroad magnate Cornelius Vanderbilt, consulted with Olmsted regarding land with spectacular views that he had bought in the mountains of North Carolina. Olmsted considered the Biltmore Estate's exhausted soils and cutover forests poor material for the park his client wanted. "My advice," he told Vanderbilt in 1891, "would be to make a small park into which to look from your house; make a small pleasure ground and garden, farm your river bottom chiefly to keep and fatten livestock with a view to manure; and make the rest a forest, improving the existing woods and planting the old fields."³⁵ Olmsted needed a forester to assist him, and at that moment aspiring forester Gifford Pinchot walked through the door while on a tour of American forests.

Pinchot's Biltmore experience would be his springboard to success and fame as America's greatest forester, and it was hardly coincidental that he appeared at that moment. His family knew Olmsted and had employed his services.³⁶ Olmsted might even have had young Pinchot in mind when he suggested reforestation Biltmore. Pinchot had graduated from Yale in 1889; ambitious to be America's first native-born professional forester, he attended France's national forestry school for one year, toured managed forests in France, Germany, and Switzerland, and returned home hoping one day to replace Fernow. Pinchot started at Biltmore in 1892, reported on his work at a forestry exhibit he prepared for the Chicago World's Fair in 1893, and recommended his

replacement, a German forester named Carl Alwin Schenck. Schenck soon took over the work and in 1898 established at Biltmore the first American forestry school. Schenck would credit Olmsted, not Marsh or Hough or Pinchot, as “the inspirer of American forestry.”³⁷ When Fernow left the Division of Forestry in 1898 to serve as the first dean of the New York State College of Forestry at Cornell, the nation’s first state forestry school and first four-year forestry program, Pinchot succeeded him as head of the Forestry Division. In 1900 the Pinchot family funded the foundation of the Yale Forestry School, the nation’s first post-graduate forestry program, to train professional foresters. Pinchot’s greatest achievement was the creation of the Forest Service in 1905, when the forest preserves were moved from the Department of the Interior to the new Forest Service in Agriculture. Two years later he renamed the forest reserves “national forests” to emphasize their efficient and scientific use for the benefit of the nation.

Pinchot, who declared, “I was born a Connecticut Yankee,”³⁸ built American forestry on Connecticut Puritan values. He was born in 1865 in his grandfather Amos R. Eno’s house in Simsbury, Hartford County, to a maternal lineage of Puritans and Huguenots. He was named Gifford after his father’s friend, the painter Sanford Gifford, and grew up in a house surrounded by Hudson River School paintings that depicted the changing landscape of rural New York and New England.³⁹

Moreover, Gifford Pinchot was close to his pious mother, who instilled in her son strong moral and evangelistic sentiments. He at first was inclined to a career in church work.⁴⁰ His father, James Pinchot, turned him from religion to forestry. Gifford’s grandfather, a French immigrant, had made a great deal of money deforesting swaths of Pennsylvania, and his father became interested in forestry because he wanted to reforest family property. In his autobiography, Pinchot recalled the moment his father suggested a career: “‘How would you like to be a forester?’ asked my foresighted Father one fortunate morning in the summer of 1885, just before I went to college.... He was sure that Forestry must come to America... and... the time was ripe.”⁴¹ For Pinchot’s twenty-first birthday in 1886, his uncle gave him the 1882 edition of *Man and Nature*.⁴²

The forester never displaced the New England preacher in Pinchot, now a preacher of the forest “gospel of efficiency,” in historian Samuel P. Hays’s apt phrase.⁴³ “The conservation issue is a moral issue,” Pinchot wrote, “and the heart of it is this: For whose benefit shall our natural resources be conserved—for the benefit of us all, or for the use and profit of the few?” He decried “the prodigal squandering” of natural resources, waste that was “often not merely without benefit but to the serious injury of the community.” He insisted, “We, the American people, have come into the possession of nearly four million square miles of the richest portion of the earth. It is ours to use and conserve for ourselves and our descendants, or to destroy.”⁴⁴

For protection of private forests, Pinchot held that moral communities like New England towns would take better care of soil and forests, and the key to maintaining moral communities was a strong country church. In 1908, at the peak of his forestry career, Pinchot promoted the “country life” movement to make rural living more attractive and served on the Country Life Commission with like-minded Liberty Hyde Bailey. In the 1910s Pinchot and his cousin Charles Otis Gill, a Yale classmate and Congregational minister, coauthored two influential studies that Pinchot funded: *The Country Church: The Decline of Its Influence and The Remedy* in 1913, and *Six Thousand Country Churches* in 1919.⁴⁵ At a 1916

conference on country churches, Pinchot sermonized, “The country church can be made again what it was during the early days in New England, the strongest power not only for righteousness, which it is now, but also for the general success of country life and for the welfare of country communities.” Like the missionary he once thought of becoming, he concluded, “The work which lies before the country church may well be second to no other in the power of its thrust toward a social order founded on the ethics of Jesus Christ.”⁴⁶ Pinchot’s forestry reinterpreted the Puritan goal of a moral, orderly society in terms of the nation’s resources.

When Pinchot left the Forest Service in 1910, his friend Henry S. Graves succeeded him. Son of a professor from West Fairlee, Vermont, Graves had graduated from Yale and followed his friend Pinchot into forestry. He served as the first dean of the Yale Forestry School and was appointed dean again when he left the Forest Service in 1920.⁴⁷ Graves’s successor from 1920 to 1928 was William B. Greeley, the last Connecticut-valley Yankee. Greeley was born in Oswego, New York, and raised on a ranch in Santa Clara County, California. His father and grandfather had been Congregational ministers in Chicopee Falls, Massachusetts, on the Connecticut River. Greeley was the first graduate of the Yale Forestry School to head the Forest Service. Having worked his way up through the ranks of the Forest Service, Greeley’s understanding of lumbering was more practical. While on the one hand Greeley sought to expand public ownership of forests to replenish the cutover lands east of the Mississippi, on the other he sought a rapprochement of sorts with the lumber barons. The result was the Clarke-McNary Act of 1924, drafted by Greeley with the support of the lumber lobby, which made it easier for the Forest Service to buy land and encouraged greater cooperation with industry. Pinchot bitterly opposed it as a sellout to the lumber industry. Thereafter, Pinchot’s moral view of forestry was marginalized, and communally based forestry as an aspect of farming gave way to commercial forestry of large tracts of nonagricultural land. The model of the New England town vanished.⁴⁸

Puritan forestry died but its moral spirit survived in conservation, perhaps the greatest legacy of Pinchot’s career. Here was a clear expression for the twentieth century of the Calvinist traditions of stewardship of the earth and the interconnectedness of nature, along with the Puritan priority of community over self-interest. Pinchot realized in 1907 that the “possible use or waste of natural resources... fitted into and made up the one great central problem of the use of the earth for the good of man,” which “must be solved if the generations, as they came and went, were to live civilized, happy, useful lives in the lands which the Lord their God had given them.” He discussed the idea with W J McGee, formerly of the Bureau of Ethnology. McGee formulated a succinct definition—“the use of natural resources for the greatest good of the greatest number for the longest time”—and convinced Pinchot “that monopoly of natural resources was only less dangerous to the public welfare than their actual destruction.”⁴⁹ Shorn of its Puritan moralism, conservation today remains the least controversial and least politicized aspect of the American environmental movement.

PUBLIC PARKS

Olmsted’s chance meeting with Downing in the office of *The Cultivator* in 1846 set in motion his dramatic rise from gentleman farmer to the nation’s foremost landscape architect, parks advocate, and city planner. Son of Massachusetts natives, Downing in fact



U.S. FOREST SERVICE HISTORY COLLECTION, FOREST HISTORY SOCIETY

Frederick Law Olmsted was instrumental in Gifford Pinchot's hiring as the Biltmore Estate's forester. In doing so, Olmsted helped launch the career of another Connecticut Valley Congregationalist whose impact is still felt today, as evidenced by the map in the background showing the national forests in the early 1900s.

preceded him in all these fields and had published three books and many articles by the time Tucker recruited him to edit *The Horticulturist*.⁵⁰ Downing sought to disseminate tasteful landscape gardens and architecture throughout America. He contended that New England had the most tasteful American towns⁵¹ and urged them as examples for town planning for new towns and suburbs fast springing up across the nation. New England towns also provided the model for the rise of city parks, themselves models for the first state and national parks. His 1850 essay "Our Country Villages" recommended "a large open space, common, or park, situated in the middle of the village...well planted with groups of trees, and kept as a lawn.... This park would be the nucleus or *heart of the village*,...for the common use of the whole village...."⁵²

Old England, not New, alerted Olmsted to the democratic possibilities of large urban public parks. Olmsted set sail in 1850 for a walking tour of England and Scotland intending to make notes on agricultural practices for articles in *The Horticulturist*. He visited the new public park at Birkenhead and had a revelation. He reported, "Five minutes of admiration, and a few more spent in studying the manner in which art had been employed to obtain from nature so much beauty, and I was ready to admit that in democratic America there was nothing to be thought of as comparable with this People's Garden."⁵³ Olmsted had surely read editorials by William Cullen Bryant in his *New York Evening Post*. Born to orthodox Congregational folk in Cummington, Massachusetts,

twenty miles from Northampton, Bryant had argued since 1844 in favor of a public park in New York City for its effect on "good morals and good order."⁵⁴ Horace Greeley, a New Hampshire-born Universalist of old Puritan stock, joined the campaign from his *Tribune*.⁵⁵ Downing published articles in 1848 and 1849 in *The Horticulturist* that advocated parks for America. At Birkenhead, Olmsted had found a pattern for New York's park. His "The People's Park in Birkenhead, Near Liverpool" in *The Horticulturist* in 1851 prompted Downing to write "The New-York Park" urging the mayor to act on a park for the fast-growing city. The New York legislature authorized Central Park in 1853, but political wrangling and lack of appropriations delayed progress until 1857.⁵⁶

Without any training or experience, Olmsted found himself the landscape architect of New York's new park, which had it not been for Downing's death in 1852 in a steamboat accident would surely have been the job of Downing and his partner Calvert Vaux. In 1857 Vaux partnered with Olmsted in a design proposal for Central Park, "Greensward," in the English-garden style, which became the plan for America's first major city park and model for urban parks from Boston to San Francisco.⁵⁷ The approval of Central Park in 1853 prompted Hartford Congregational minister Horace Bushnell, Olmsted's friend and former next-door neighbor, to lobby city fathers for a park. In 1854 Hartford became the first municipality to purchase land for a public park with city funds, Bushnell Park.⁵⁸

Central Park's design and purpose manifested the Puritan

social ethic. One goal was religious. Olmsted wrote that “it is one great purpose of the Park to supply to the hundreds of thousands of tired workers, who have no opportunity to spend their summers in the country, a specimen of God’s handiwork that shall be to them, inexpensively, what a month or two in the White Mountains or the Adirondacks is, at great cost, to those in easier circumstances.”⁵⁹ So skillfully did Olmsted hide the artificiality of the park that many religious visitors thought they were looking at the works of God. However, parks’ primary purposes were moral and social, Olmsted argued. Well-designed parks would expose the public to good taste and healthy influences, and thus promote good morals and good order. Opportunities to relax the mind amidst beautiful expansive scenery, exercise the body, and escape the crowded, noisy, stressful city streets enabled people to be industrious, useful, moral citizens. People could not exercise their talents or contribute fully to the community if they were ill, weak, or enticed by the multitude of immoral amusements that cities offered.⁶⁰

Yosemite Park, established in 1864 in the wake of Central Park, was also the creation of New Englanders. Israel Ward Raymond, born in New York to former Connecticut Congregationalists, wrote the letter to Senator John Conness in early 1864 that instigated the park.⁶¹ Yosemite immediately inspired proposals to do something similar for Niagara. Church, the famous painter of *Niagara*, proposed such a park for the falls in 1869. Olmsted and architect H. H. Richardson went to inspect the falls. Like most visitors, they were utterly appalled at the “sordid interests” that had turned the falls into part industrial complex, part carnival, and part tawdry tourist trap. Olmsted began the campaign for the park and prepared a design with Vaux that restored the American bank’s “wild” condition. Church lobbied the Canadians for a proposal for an international park. Against fierce political and commercial resistance the legislature approved funds, and in 1885 Governor Grover Cleveland signed the bill.⁶²

Connecticut Valley Congregationalists continued into the next century to lead and guide the American parks movement. Ferdinand V. Hayden and Cornelius Hedges of Westfield, Massachusetts, were the principal advocates for Yellowstone, the world’s first national park in 1872. William Kent, son of Connecticut natives and a Yale alumnus, cofounded the Save-the-Redwoods League in 1918, donated the land for Muir Woods National Monument, worked to establish California’s Mount Tamalpais State Park, and coauthored the 1916 bill to create the National Park Service.⁶³ Two other cofounders of the Save-the-Redwoods League, Frederick Russell Burnham and Henry Fairfield Osborn, descended from Connecticut Congregational ministers.⁶⁴ Yale graduate George Bird Grinnell, grandson of the Congregational minister of Greenfield, Massachusetts, led the creation of Glacier National Park in 1910, and landscape architect Ernest F. Coe, New Haven native and Yale graduate, spearheaded establishment of Everglades National Park in 1934.⁶⁵

CONGREGATIONALIST CONSERVATION

A surprisingly intimate group stood at the fountainhead of American agricultural improvement, conservation, forestry, and parks. Friendship, professional work, geography, and Puritan and Congregational backgrounds linked them. Church put the American landscape on canvas and preserved it in parks. Billings made the Marsh mansion a monument to Marsh’s conservation ideals and facilitated Olmsted’s rise to become the nation’s leading

landscape architect of parks and urban design. Olmsted gave Pinchot his first job, where he began a career of his own putting Marsh’s ideas into practice.

The Connecticut River valley produced no Emerson or Thoreau. Congregationalists could commune with God in the woods with the best of them, but these practical folks rarely lost themselves in airy mysticism and never defended wilderness for its own sake, as something apart from its social benefits. Whereas Emerson contemplated the Oversoul and Thoreau sought life’s meaning on the shores of Walden Pond, Congregationalists produced agricultural inventions and methods, governmental and educational agricultural institutions, conservation and forestry reserves, schools of forestry, the Forest Service, and city, state, and national parks. From small beginnings in the white-spired Congregational churches of New England towns came mighty works indeed. □

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NOTES

1. See John K. Howat, *Frederic Church* (New Haven: Yale University Press, 2005), 69–74; Franklin Kelly, “A Passion for Landscape: The Paintings of Frederic Edwin Church,” in Kelly, ed., *Frederic Edwin Church* (Washington, D.C.: National Gallery of Art, 1989), 50–54.
2. Robin W. Winks, *Frederick Billings: A Life* (Berkeley: University of California Press, 1991), 303.
3. Howat, *Frederic Church*, 5; Charles Dudley Warner, “An Unfinished Biography of the Artist,” in Franklin Kelly, ed., *Frederic Edwin Church* (Washington, D.C.: National Gallery of Art, 1989), 177.
4. For Billings and Congregationalism (or Presbyterianism in San Francisco or New York), see Winks, *Frederick Billings*, 5, 86, 172, 223, 258, 306, 308, 310.
5. See, for example, Steven Stoll, *Larding the Lean Earth: Soil and Society in Nineteenth-Century America* (New York: Hill and Wang, 2002); Percy W. Bidwell, “The Agricultural Revolution in New England,” *American Historical Review* 26 (July 1921): 683–702.
6. Jared Eliot, *Give Cesar his due. Or, The obligation that subjects are under to their civil rulers, as shewed in a sermon preach’d before the General Assembly of the colony of Connecticut at Hartford, May the 11th, 1738* (New London, Conn.: T. Green, 1738); see Christopher Grasso, “The Experimental Philosophy of Farming: Jared Eliot and the Cultivation of Connecticut,” *William and Mary Quarterly*, Third Series, 50 (July 1993): 524.
7. Eliot, *Essays*, 138, 165.
8. Jesse Buel, *The Farmer’s Companion or, Essays on the Principles and Practice of American Husbandry* (Boston: Marsh, Capen, Lyon, and Webb, 1839), 21, quoted in Stoll, *Larding the Lean Earth*, 90.
9. Laura Wood Roper, *FLO: A Biography of Frederick Law Olmsted* (Baltimore: Johns Hopkins University Press, 1973), 11.
10. Roper, *FLO*, 44; Frederick Law Olmsted, *The Papers of Frederick Law Olmsted*, vol. 1, *The Formative Years: 1822–1852*, Charles Capen McLaughlin, ed. (Baltimore: Johns Hopkins University Press, 1977), 75. On Tucker, see Tunis Garret Bergen, ed., *Genealogies of the State of New York*, Long Island ed., v2 (New York: Lewis Historical Publishing Co., 1915), 1001–1002.
11. Alfred Charles True, *A History of Agricultural Education in the United States, 1785–1925* (New York: Arno, 1929 [1969]), 14; and True, *A History of Agricultural Experimentation and Research in the United States, 1607–1925* (Washington, D.C.: Government Printing Office, 1937), 22–34, 41.
12. The Connecticut school was preceded by Maine’s Gardiner Lyceum, established in 1821 by Congregational minister Benjamin Hale. True, *History of Agricultural Education*, 31–37.
13. Brett H. Smith, “Reversing the Curse: Agricultural Millennialism at the Illinois Industrial University,” *Church History* 73 (2004): 759–91.

14. Horace White, *The Life of Lyman Trumbull* (Boston: Houghton Mifflin, 1913), 2–3; True, *A History of Agricultural Education*, 52, 56, 83–84, 91–94, 103.
15. Coy F. Cross, *Justin Smith Morrill: Father of the Land-Grant Colleges* (East Lansing: Michigan State University Press, 1999), 12–13, 77–87.
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57. Rosenzweig and Blackmar, *Park and The People*, 120.
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IN THE LINE OF FIRE

AN OVERVIEW OF WILDFIRE IN KOREA

Between April 5 and 7, 2005, some 20 fires burned 250 hectares and 246 buildings, forced more than 2,000 people to evacuate, and ruined cultural heritage sites. The firefight lasted three days as *foehn* winds drove over mountains and officials mustered and coordinated resources at all scales of government:

10,000 firefighters and soldiers, 38 helitankers, 184 engines. The National Emergency Management Agency declared the affected regions special disaster zones, promising aid to assist victims, rebuild houses, and compensate for destroyed crops and livestock. Not an unusual event, not even a large one by international standards, but it was a fire outbreak that rang brazenly throughout South Korea.¹

And its locale is what moves the outbreak from a news item to something like an apologue. The fires kindled from votive candles, military training sites, and brush burning across the Demilitarized Zone (DMZ). They flashed through woods that did not exist 60 years ago. They blasted large patches in the Naksansa Temple complex, established 1,300 years ago. They burned through a landscape organized on fundamentally different principles from what most wildland fire agencies consider normative. This is a country where wildland is a bonsai garden planted at a landscape scale. It's a country where routine ignition comes from live-fire exercises on military bases. It's a forested country whose only fire-maintained landscape is the DMZ that separates North and South Korea.

It is a scene that challenges typical notions of what "wildland fire" means and what options exist to manage it.

THE *LONGUE DURÉE* FIRE HISTORY OF KOREA

At 38,000 square miles, South Korea has a land area a little larger than Indiana and a little smaller than Kentucky. Its 50 million people give it a population a little more than California and Florida

combined and a little less than California and Texas. Most of the country is mountainous. Much of its forest coverage began changing when Korea reluctantly signed the Khangwa Treaty in 1876 that commenced its trek into modernity. The transformation accelerated during Japanese colonization, which formally began in 1910. But World War II and the Korean War devastated its forests. The last war left the peninsula severed into North and South roughly along the 38th parallel. In 1955, forest cover in South Korea was only 35 percent of national land area. Over the past 60 years South Korea has reconstructed both its society and its landed estate, and did both along similar principles.²

The *longue durée* fire history of Korea is not known in any detail. The modern climate arrived about 6,000 years ago, mostly temperate but within the rhythms of the Asian monsoon, which encouraged dry winters, strong northwesterly winds during the spring, and summer rains. Within another 2,000 years pines began to replace broadleaves. The woods, or at least parts, enjoyed official protection; the Chosun Dynasty (1392–1886), for example, controlled logging and fuelwood gathering. Mostly, the small landholdings argued for close cultivation, particularly wet rice cultivation in the valleys, but also in the mountains, even when swiddened, which made Korea another of Asia's garden societies. Instead of practicing free-ranging livestock husbandry, which typically invites broadcast burning, farmers had a goat or cow they would tether for grazing. A plausible picture is one of routine, small-plot burning for shifting cultivation and stubble, and maybe

BY STEPHEN J. PYNE

patch burning for pasture, with few occasions for far-ranging fires. Yet the chronically unsettled politics of the peninsula led to coups, wars, and unrest that from time to time removed the tending hand and created opportunities for more explosive fires.³

All this changed with Japanese colonization. Japan saw Korea's old forests as industrial material; that pattern of consumption quickened during World War II. The Korean War widened the destruction, not least through firebombing; then crash programs for economic modernization completed the degradation. By 1960 forest stock was estimated at 9.6 m³/ha, mostly Korean red pine, a hardy pioneer. Construction timber was scarce. Fuelwood shortages caused acute hardship. Hillsides eroded. Mountain villages were beggared. The reconstruction of South Korea would involve nature's economy as well as society's.⁴

It started with state-driven investments in infrastructure. Replanting began in the 1960s with President Park Chung Hee himself planting seedlings. Often, temporary terraces had to be created and soil carried up hillsides. Systematic programs began in 1973 with the First 10-year Forest Rehabilitation Plan, which aimed to establish fuelwood plantations and prevent erosion with fast-growing larch, birch, and pine. The program completed its goals in six years with the reforestation of 1.08 million ha. The adage in emergency medicine is to stabilize, then transport. For emergency forestry, this translates into stabilize, then evolve.⁵

A series of successor plans followed, each adding some complexity to the scene. The Second National Forest Plan laid out 80 large-scale commercial plantation forests with a mix of species over 1.06 million ha. The third plan moved into "multifunctional forests" in an effort to reconcile production with public amenities. It empowered the Korean Forest Service (KFS) to oversee 32,000 ha of commercial forest and more than 3 million ha of forestland for watershed, wildlife, and recreation. To preserve its new woods, the Republic of Korea planted woodlots overseas and maneuvered to import timber that it would process and then resell (often back to the source nation). The fourth plan, which ended in 2007, transitioned to a more sustainable forest that mixed commercial products with public amenities. The mix of species expanded, with afforestation by birch and Mongolian oak, often organized into strips and dappled patches, creating green fuelbreaks and rudely crafting mosaics, culminating over the years in a greater reliance on natural reseedling. Meanwhile, economic growth helped fragment forests with croplands, ski resorts, mines, quarries, and golf courses. The fifth plan envisioned a "green nation with sustainable welfare and growth." Production forests would balance with recreation forests, and Korean usage would be offset by overseas plantings. Along with the plans unrolled a series of forest laws to harden the changes in South Korean society, if not its land.

It was a formula for fast yet staged development, a compound of the urgent with the logical, a kind of Asian fusion of landscape as South Korea raced into modernity at breakneck speed. The practices and discipline that made South Korea a developed country in a handful of decades equally transformed its mountain forests. In 50 years South Korea's forest stocking skyrocketed more than an order of magnitude, from 9.6 m³/ha to 125.6. Forests now cover 65 percent of the national estate.

With the return of forests came the prospect for the return of forest fire, particularly with the transfer from silvicultural plantations to multipurpose and amenities landscapes. On April 23, 1996, serious fires roared back. The largest fire since the Korean War broke out in Goseong when the military disposed of TNT



WIKIMEDIA COMMONS: "KOREA-NAKSANSAS 22:17:47 FIRE PICTURE" BY STEVE48814

This photo is a panel on an information board at the Nakasansa temple showing some of the damage done to the complex by wildfire in 2005. The structures have been rebuilt or restored since then.

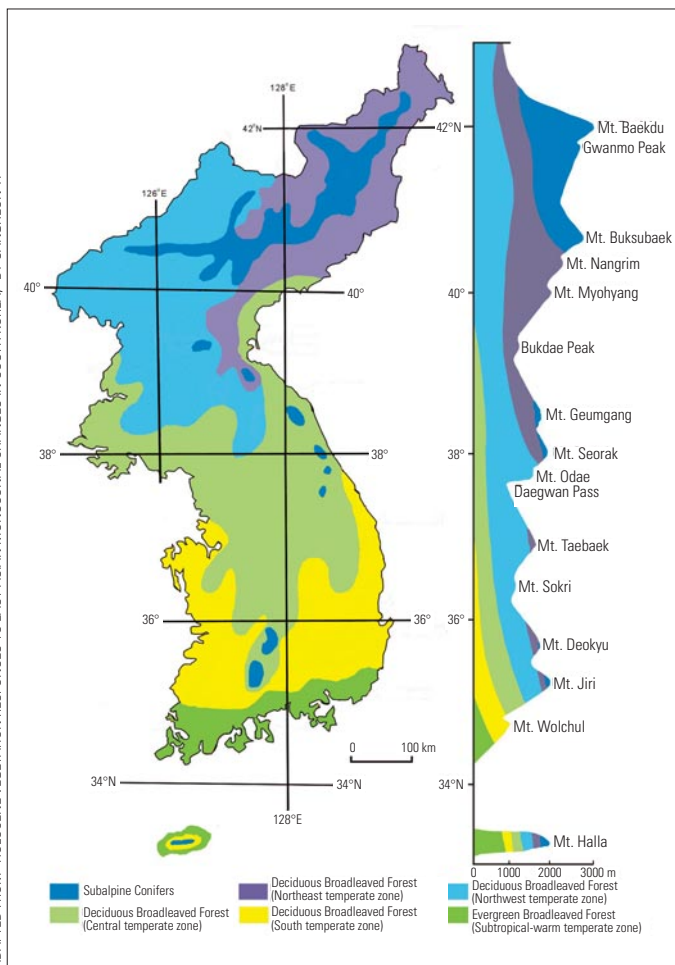
on a firing range and the resulting flames ran over 3,762 ha, 227 buildings, and 55,423 "agricultural machines." Others, less savage, flared along the east coast. These are not large fires by the standards of Russia, Australia, Canada, or the United States, but they are big on the scale of South Korea, and they burn with heavy symbolism. The scorched lands were restored by the familiar techniques developed over the previous 25 years. The outbreaks also prompted a national discussion about what threats the maturing fire scene might hold.⁶

The primary emphases were to restore and protect. Korea invested heavily in firefighting technologies, not only in pumps and helicopters but also in research projects and fire danger rating software. There was little sense that restoring fire to the landscape might also be a part of restoring fire-adapted forests. Korea had its own logic of needs, and it turned instinctively to security forces for rapid detection and attack. Then in 2000, fires rambled over 24,000 ha along the east coast and forced the Uljin nuclear plant to shut down. Restoration followed, though the strategy favored more natural regeneration and this time appealed more to indigenous species rather than exotics. KFS relied on fire suppression apparatus, along with fire prevention programs, to hold fire to acceptable limits. Research emphasized fire control.⁷

What was clear, however, was that the further maturation of the Korean mountain landscape would trigger yet more fires and might, at some stage, even point to a more nuanced agenda of fire management.

TWO KOREAS, TWO POLICIES

The Korean War climaxed a half-century of trauma. The DMZ that froze the line of conflict has inscribed a chasm through time as well as space. The contrasts have become more extreme with each decade. Today the differences are visible from satellites. Look at evening lights and the North is a dark patch amid the bustling lights of northeastern Asia. Look at daily hot spots and the North holds nearly all of them, fenced within its eremitic state. South Korea made what fire historians are beginning to call the pyric transition, the shift from a reliance on biomass fuels and landscape



Vertical and latitudinal modern vegetation map showing the forests distributed across the peninsula with elevation.

fire to the burning of fossil fuels and lithic landscapes. North Korea did not. The South has the abundance of combustion of all kinds. The North has fires.

The transition is a natural trend that accompanies industrialization. But it has peculiarities according to place, time, and culture. It depends on sources of fossil fuel, a capacity to distribute its power widely through society, and the removal, forced or voluntary, of those peoples who are living in traditional ways in the countryside. In the usual scenario the transition begins with something like a fire orgy as new fuels and ignitions mingle promiscuously with traditional landscapes and kindlings before technological substitution and outright suppression lead to a dearth of open flame, an ecological fire famine.

South Korea made a deliberate decision to speed that process along. The postwar fuelwood shortage pushed it to find alternative sources of energy. Interest in quickening industrialization led the state to encourage the depopulation of the mountains by removing people to large cities through its "New Village Movement" (*Saemaul Undong*) program, begun in 1970 or later.⁸ When people left, so did the traditional sources of ignition and the purposes of burning. Agricultural fire of all kinds was legally banned in 1980. Fuels built up; fires did not. The population explosion of abusive burning that typically characterizes the pyric transition came during the war. What remains is a landscape whose population of fires now falls below ecological replacement values.

Some traditional sources of ignition persist in the guise of

candles lit in temples and lanterns on gravesites and the occasional debris burned on the outskirts of towns, and when the spring winds blow, those pilot flames can rise up and blast over the countryside. But most ignitions come from modern conditions. In Korea this means the military. Live-fire training leads to fires. Ordnance disposal leads to fires. Even the use of incinerators on bases has led to fires.

In the pyric transition the most dangerous time is that phase when old and new mingle without regard to environmental logic. Yet this is exactly the geopolitical and ecological circumstance frozen by the DMZ. To maintain an open field of fire, North Koreans routinely set burns when the spring winds howl from the northwest and then let those flames rush south. When they strike the southern border, they trigger firefights as South Koreans try to contain them before they spill over the border and do damage. The upshot is that, paradoxically, the DMZ features the only fire-sustained biota on the peninsula and is probably the closest approximation to the pre-twentieth-century landscape.

To Western eyes the Korean fire scene can appear otherworldly, as though transported to a planet organized on different principles. There is little pertinence to fire-dependent biotas when the nominal wildlands are planted; when wilderness is a socially meaningless term; when ecological integrity refers to an ecosystem that is built by human labor devoted to creating terraces, hauling soil, and planting mature trees; when traditional burning refers to such relic practices as lighting lanterns in small graveyards; when there are almost no natural ignitions; when the closest approximation to the wildland-urban interface is a Buddhist temple embedded in the hills. Deliberately setting fires, even if prescribed, can seem suspicious in a security state that is still technically at war. Natural fires, managed wildfires—these are existentially blank concepts. A fire-renewed ecosystem means one replanted after burning.

The only reasonable response for the foreseeable future is to suppress fire, and to do so with massive, quasi-military force. At the VI International Wildland Fire Conference held in Pyeongyang, KFS staged a demonstration of its firepower by flying phalanxes of heavy helicopters to douse a simulated blaze. In time, as a more syncretic biota emerges, if tensions across the DMZ dissolve, if that other imposed divide between Korean nature and culture—between storks and Samsung—fades, there may be a place for patches of traditional burning, but it will come with a modern version of cultivation, of landscaping for purposes and according to aesthetics probably alien to the notions of the Big Four nations whose fire establishments have evolved to handle free-burning fires on vast bushlands and big backcountries.

For now, the North Koreans burn. And when they periodically declare their bellicosity by threatening to subject Seoul to a "sea of fire," that metaphor can have an unsettlingly literal referent.

ASIAN FUSION

For now, too, the emblem of South Korea's fire scene is the Naksansa Temple overseen by the Jogye Order of Korean Buddhism. Part of the postwar reconstruction of the Korean landscape involved cultural sites, of which Buddhist temples constitute probably a third. Nearly all lie in the mountains. The villages are gone or modernized, no longer a routine source of ignition. The wood-construction temples and the ancestral graveyards remain, still reliant on candles and lanterns, and so occasionally prone to fire. The temples also suffer from landscape fires that crowd into their surrounding woods. Today, roughly 53 such fires occur each

Multiple fires burned in North Korea in April 2014, sending a plume of smoke over the Sea of Japan. North Koreans use fire to clear debris from last year's crops and to help fertilize the soil for the coming season. However, some of the fires were burning in heavily forested areas, suggesting that they might be wildfires.

year. Here is the Korean equivalent of America's wildland-urban interface, and like the DMZ, the uneasy border cannot be relocated or erased. The friction between temple ground and surrounding woods is fundamental to the setting. The border will persist.

The Korean solution shows the kind of synthesis that has become a hallmark of, say, K-pop, which fuses several subgenres of pop music into a modern, distinctively Korean style of music. Koreans rebuild damaged temples with more modern, less fire-prone materials. They restore the woods with less fire-prone species, and where pines remain a cultural preference, they plant mature trees and meticulously clean up the surface fuels. They devise technological solutions to the problem of artifacts like the Naksansa bronze bell, such as an elevator triggered by heat and smoke that will automatically lower the treasure below ground when fire threatens. They rely on rapid, massive response to quench flames.

New and old, an Asian architectural fusion. The substances differ. The form endures. The operative aesthetic is not untrammelled naturalness. Famously, the Buddha himself had a fire sermon in which he appealed to landscape fire as the very emblem of a chaotic world driven by fiery passions that had to be quelled to achieve nirvana. That is not a bad approximation of what the Land of Morning Calm aspires to not only for its temples but for its future. For the coming decades South Koreans will actively quell such outbreaks by whatever technological power they have. So long as they remain in the line of fire, that formula is unlikely to change. □

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NOTES

1. Reports from Global Fire Monitoring Center, which aggregated news reports and satellite imagery. See "Forest Fires in South and North Korea, 08 April 2005," Global Fire Monitoring Center: http://www.fire.uni-freiburg.de/GFMCnew/2005/04/0408/20050408_korea.htm, accessed October 22, 2015.
2. For summary histories of Korea's forest history, see K. Tak, Y. Chun, and P. M. Wood, "The South Korean Forest Dilemma," *International Forestry Review* 9, no. 1 (2007): 548–57; and Jae Soo Bae, Rin Won Joo, and Yeon-Su. Kim, "Forest Transition in South Korea: Reality, Path, and Drivers," *Land Use Policy* 9, no. 1 (2012): 198–207.



KOREA_AMO_2014115_LRG, COURTESY OF JEFF SCHWALTZ, NASA EARTH OBSERVATORY

3. Background on agriculture is from Michael J. Seth, *A History of Korea: From Antiquity to the Present* (Lanham, Md.: Rowman and Littlefield, 2011), and Michael E. Robinson, *Korea's Twentieth-Century Odyssey: A Short History* (University of Hawaii Press, 2007).
4. A concise survey of Korea's environmental evolution played against modern politics is Lisa M. Brady, "Life in the DMZ: Turning a Diplomatic Failure into an Environmental Success," *Diplomatic History* 32(4) (2008): 585–611.
5. An excellent summary of these developments, and the source of my figures, is Jino Kwon, et al., *Forest Landscape Restoration Success, Emerging Challenges, and Future Direction in the Republic of Korea* (Korean Forest Research Institute, 2014). The fire essence is distilled into a brochure, also published by the Korean Forest Research Institute, *Forest Ecosystem Change Since 1996 Wildfire in Korea* (n.d.).
6. Korean Forest Research Institute, *Lost Landscape in Forest Wildfire: 20 Years Changes at Eastern Coast of Korea* (Korean Forest Research Institute, n.d.).
8. A nice pocket-sized summary is available in Soung-Ryoul Ryu (English ed.), *Post-Fire Restoration to Establish a Healthy and Sustainable Forest Ecosystem* (Korea Forest Research Institute, 2010).
7. On the 2000 fires, see Kwon et al., *Forest Landscape Restoration Success*, 67–68, and Global Fire Monitoring Center, http://www.fire.uni-freiburg.de/current/archive/kr/2000/04/kr_04172000.htm, accessed October 21, 2015.
8. For a summary history of the New Village Movement, see Tracy Li, "Saemaul Undong: South Korea's Mark on International Development," Institute for Advanced Development Studies, "Development Roast," <http://inesad.edu.bo/developmentroast/2013/03/saemaul-undong-south-koreas-mark-on-international-development/>, accessed November 13, 2015.

Biographical Portrait

DUANE LEROY BLISS

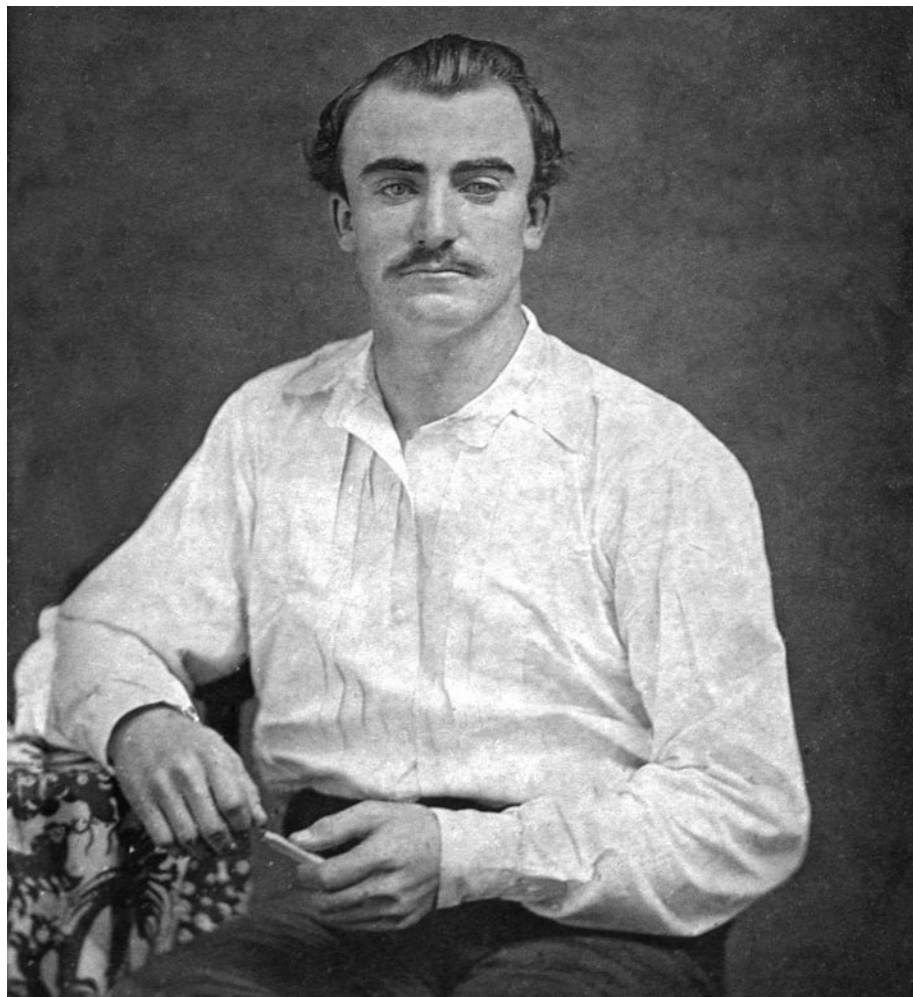
LUMBER BARON OF THE COMSTOCK LODE

By Jack Harpster

Among the owners, operators, and suppliers of the Comstock, the 125-plus tunnels in Nevada where silver and gold were mined for four decades of the late nineteenth century, there were many scoundrels and scalawags. There were also some men of high character and superb business skills. C. C. “Charlie” Goodwin was one of the most talented newspaper journalists and authors working and reporting on the Comstock, and he wrote frequently of all these men. Of those he considered praise worthy, Goodwin reserved his highest acclaim for Duane L. Bliss. Upon Bliss’s death in 1907, Goodwin wrote, “He has been one of the foremost men of Nevada for quite forty years.... He was one of the most thorough men and one of the most perfect gentlemen. There was no worthier man on the west coast than Duane L. Bliss.”

The man who so impressed Charlie Goodwin was born on June 10, 1833, in the Berkshire Hills of western Massachusetts. As a young man he did extremely well in school, first attending the local public school, then a private academy in a neighboring town. But at only 13 years old he dropped out when his mother—they were very close, as Duane was an only child—died unexpectedly, 36 years old. When his father remarried less than two years later, Bliss no longer felt comfortable in the family home, and he went to live with an uncle in New York City.

Bliss grew up in exciting times. The second quarter of the nineteenth century was the age of scientific discovery, a time when scientists and naturalists were reaching far beyond their own borders to learn more about the world around them. Englishman Charles Darwin, American explorer John Lloyd Stephens, and U.S. Navy Lieutenant Charles Wilkes were making groundbreak-

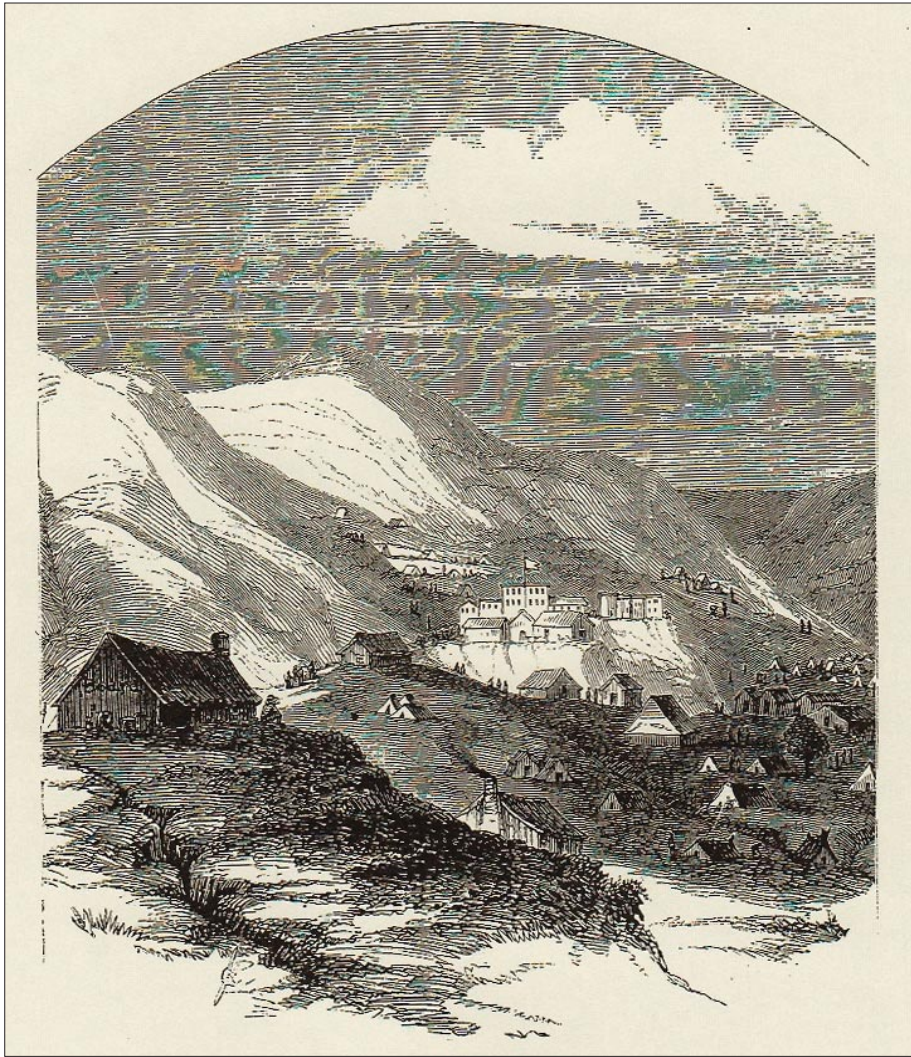


The earliest known picture of Duane L. Bliss, taken in the mid-1860s. Bliss would have been around thirty years old at the time of this portrait, and on the cusp of beginning his banking career on the Comstock.

ing discoveries all over the world. Then there were the newly published works by the dean of tropical field exploration, German naturalist and explorer Baron Alexander von Humboldt. Young Duane Bliss, an avid reader, took all of this in, and he wanted to be part of it. He went to the busy New York wharves and found a job

as a cabin boy on a six-month voyage to South America, and it went so well that he immediately signed up for a second six-month trip. Finally returning to the Berkshires, he mended fences with his father. By this time the boy had become a young man, and he began planning his next adventure.

COURTESY OF THE BLISS FAMILY



Early Virginia City on Sun Mountain as Duane Bliss would have seen it upon his arrival in 1860. Despite this hardscrabble beginning, during its heyday Virginia City would grow to be the most important city between Chicago and San Francisco. From a drawing by J. Ross Browne for his 1860 book, *A Peep at Washoe*.

In January 1850 Bliss traveled via the Panama crossing route to San Francisco, to join the 49ers digging for gold in the western Sierra Nevada. He would spend the next decade in California, first panning unsuccessfully for gold, then working at a general store in the lumbering town of Woodside on the San Francisco peninsula. During those years Bliss married and had two daughters; but in the brief span of three years, various diseases would wipe out his entire family. In January 1860, hoping to put those tragedies behind him, he moved to the hardscrabble town of Gold Hill on Sun Mountain, in the Virginia Range of western Utah Territory, now Nevada. It was the dawn of mining on the famous Comstock Lode, and it would be the next big adventure for the 27-year-old. In 1863, he returned to Massachusetts, married Elizabeth Tobey, and brought her

to Gold Hill. Between 1865 and 1875, Elizabeth gave birth to four sons and one daughter.

When Bliss arrived, Virginia City and Gold Hill were but hints of what they would soon become. An itinerant artist and writer, J. Ross Brown, described the settlements in 1850:

Framed shanties, pitched together as if by accident; tents of canvas, of blankets, of brush, of potato-sacks and old shirts, with empty whiskey-barrels for chimneys; smoky hovels of mud and stone; coyote holes in the mountain side forcibly seized and held by men; pits and shafts with smoke issuing from every crevice... The intervals of space, which may or may not have been streets, were dotted over with human beings of such sort, variety, and numbers that the famous

ant-hills of Africa were as nothing in the comparison.

Bliss mined for a while, but with no more success than he had experienced in California's streams as a 49er. But by a stroke of good fortune he met a man who would become his friend and mentor. Almarin B. Paul had mined copper at Lake Superior, gold in California, and silver in Nevada. However, he was at heart an engineer, and while in California he had developed the Washoe pan process for extracting gold or silver from quartz ore using mercury. On the Comstock, Paul's process would quickly replace the primitive, centuries-old practice of separating precious metals from ore by grinding it between flat stones. Paul hired Duane Bliss to help him build and then manage the first of the Comstock's massive, costly quartz mills.

Placer mining for gold in California could be done by one person with a pick, a shovel, and a rocker or gold pan. However, hard-rock mining deep underground required money—massive amounts of it—and the Comstock, with its promise of fabulous riches, quickly became the favorite target of San Francisco's wealthy investors. In 1862 the San Francisco Mining Exchange was formed, and an avalanche of incorporations followed this creation of an efficient market in which they could operate. Historian David Lavender wrote that more than 4,000 incorporations were established in 1863, and 75 percent of them were for mining companies. One group of wealthy Bay Area men, often called the Bank Ring, joined together under the auspices of the Bank of California, led by bank president William Ralston and his point man on the Comstock, William Sharon. Within a few years the group would control most of the Comstock's mines, mills, banks, and water supply as one giant combine, or monopoly, as we would call it today.

Paul, Bliss, and a third partner had opened Almarin B. Paul & Co., Bankers in Gold Hill in 1863; but they saw the handwriting on the wall and sold their bank to William Sharon's group two years later. Bliss stayed on in an executive position, becoming an employee—and eventually a trusted lieutenant—of the Bank Ring's leaders. Bliss was never a member of the Bank Ring, however: he never had the necessary capital or political clout. Members' chicanery in manipulating the Comstock to their advantage was not an aberration during the



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A constant train of freight wagons pulled by horses, mules, and oxen carried necessary supplies and equipment up Sun Mountain to Virginia City, Gold Hill, and other communities on narrow, crowded dirt roads. Laden with raw ore from the mills, they returned down the mountainside to the Carson Valley quartz mills where the silver was extracted. In 1869–70, the Bank Ring built the Virginia & Truckee Railroad to solve this problem.

period following the Civil War. Historian Hal Bridges, writing in Harvard University's *Business History Review*, noted, "Widespread in American historical writing is the idea that business leaders in the United States from about 1865 to 1900 were, on the whole, a set of avaricious rascals who habitually cheated and robbed investors and consumers...and in general carried on predatory activities comparable to those of the robber barons of medieval Europe." Such was the case on the Comstock.

During its four-decade run, the Comstock was marked by highs and lows. Mine

owners would prosper, then it would suddenly appear that the rich silver lode had played out. But each time they would soon discover that the wide belt of rich ore had simply "gone south," or could be found ever deeper in Sun Mountain's 7,900-foot depth. So the miners would dig deeper into the earth and business would boom again.

During one of those high periods, William Sharon and William Ralston observed that the only phase of the operation not being controlled by their combine was transportation. They hired two of their trusted lieutenants, Henry Yerington and

Duane Bliss, to oversee the building of the Virginia and Truckee (V&T) Railroad to carry men, equipment, lumber, and ore up and down the mountainside. When the construction was finished, Yerington was put in charge; Ralston and Sharon had Bliss in mind for another job.

The Comstock mines required enormous amounts of lumber from the Sierra forests. Huge timbers were required to support the mines, using a system invented on the Comstock called the square-set system. A square-set is a criblike box made up of four- to six-foot-long timbers, inter-



The massive C&TL&FC lumber and wood storage yard in Carson City in 1876. The storage yard was set afire by competitors the following year, likely as retribution for the special pricing concessions granted to C&TL&FC by the V&T Railroad. The Territorial Enterprise reported that over 75,000 board feet of lumber and 7,000 cords of firewood were destroyed, an estimated loss of \$80,000 to \$90,000 to the company.

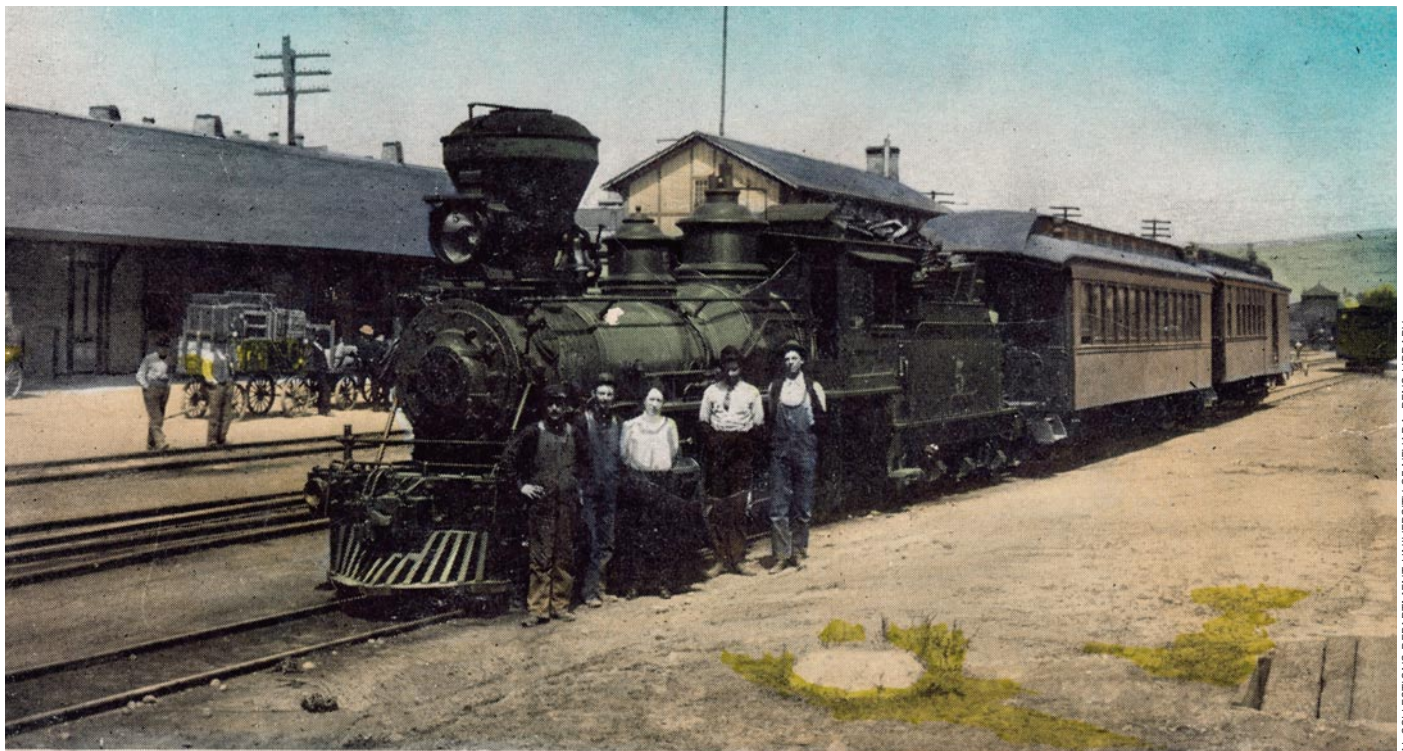
locked at the ends by mortises and tenons. Individual cribs can be added inside a mine, set by set, in any direction and to any height, width, or length, creating an endless number of configurations. Think of it as a set of toddler's wooden blocks, but hollow inside, being stacked one atop the other in an endless array of patterns. Once a square-set was placed in a mine shaft, if necessary the open sides of the crib could be covered with wooden slats and the crib filled with waste rock or dirt, making the set as firm as the original mountain. But these square-sets just added to the mines' voracious appetite for firewood to run all their machinery, plus lumber to build all the mills, houses, and stores on the mountainside. All the nearby timber stands in the Washoe and Carson valleys and on the easily accessible western slopes of the Sierra were soon depleted.

In 1870 Ralston and Sharon asked Bliss and Yerington to form a company to

harvest the untouched western slope of the Sierra, in the Lake Tahoe basin. The company was initially named Yerington, Bliss & Company. Bank Ring member Darius Ogden Mills was also involved in the company as a silent partner, and he funded some of the early timberland purchases; however, the company quickly became profitable and Mills's money was no longer needed. Three years later the firm was reincorporated as the Carson and Tahoe Lumber and Fluming Company (C&TL&FC). James Rigby would also be a stockholder, but he held only a very small percentage in the enterprise.

Again, Bliss, Yerington, and Rigby served as trusted lieutenants of the Bank Ring, but none were actually members. This was a major deviation from all past Bank Ring practices, where members of the cartel owned the stock in all the mines, the mills, the V&T Railroad, and the local water company. During the entire quarter-century

life of C&TL&FC, Bliss would own more shares than any of the others, he would serve as president and general manager, and he would run the entire operation. Assertions by latter-day historians and writers that C&TL&FC was a Bank Ring operation are inaccurate. Although the company and the Bank Ring had forged favorable agreements to exclude other lumber companies, Bliss and Yerington still owned controlling interest, and they were never members. As further proof of C&TL&FC's independence, when another combine—four Irishmen whose operation became known as the Big Bonanza—forced the Bank Ring combine off the Comstock beginning in the mid-1870s, C&TL&FC continued to flourish. The Big Bonanza did launch its own lumber company, the Pacific Wood, Lumber and Flume Company, but when its relatively small 12,000-acre timberland was exhausted, it too became a customer of C&TL&FC.



LAKE TAHOE TRAIN, TRUCKEE, CALIFORNIA

2338

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Duane Bliss and his sons built the Lake Tahoe Railway (not to be confused with the earlier Lake Tahoe Railroad that served C&TL&FC's lumbering business) in the late 1890s to bring national and international tourism to the lake. The train, shown here at the Truckee, California, depot where it linked up with the transcontinental railroad, carried passengers all the way out onto a 1/3-mile-long pier built out into the lake at Tahoe City.

Eventually C&TL&FC would own or lease between 50,000 and 80,000 acres of timberland in the Tahoe basin in five counties in Nevada and California, employing an estimated 3,000 people during the lumbering season. The company maintained its headquarters, a mammoth lumber storage yard, and a box and planing mill in Nevada's capital, Carson City. The company also owned extensive millworks in Glenbrook on the Nevada side of Lake Tahoe, and it built and operated four logging and freight railroads and a fleet of steam-driven tugs and barges to move logs from around the lake to the mills. It also operated an extensive network of wood camps and flume camps; and auxiliary mills were placed in strategic locales to construct and maintain an expansive system of flumes and reservoirs, a labyrinth of haul roads, skid trails, and log chutes, along with wood wagons, pack mules, oxen, and horses.

It has often been supposed that during this era the Tahoe basin was "denuded" of its trees. That is an exaggeration, although during the peak years between 1875 and 1880, an average of more than 30 million

board feet was cut at mills in Glenbrook and Incline, both in Nevada.¹ But by the early 1880s the Comstock era—and the timber it required—was played out. A few small revivals occasionally occurred when the mines and mills reprocessed leftover low-grade ore, but the halcyon days were over. From 1859 through 1899 the Comstock mines produced \$400 million in silver and gold wealth. Surprisingly, another \$100 million was also generated from timber sales, chiefly from Duane L. Bliss's C&TL&FC.

Following the Comstock era, Duane Bliss and his four sons launched a huge tourism business at Lake Tahoe. This included a fleet of steamships, the mammoth Tahoe Tavern resort at Tahoe City, the family-oriented Glenbrook Inn & Tavern in Glenbrook, and a narrow-gauge railroad from Tahoe City to Truckee, where it made connections with the transcontinental railroad, opening national and even international tourism to the once isolated area.

By the time all these changes were in place, Duane Bliss—once castigated for

the environmental damages his lumbering activities had wrought upon the Tahoe basin—had become popularly known in Lake Tahoe basin communities as "The Grand Old Man of Lake Tahoe."

Duane Leroy Bliss died December 23, 1907. In 1929 his family donated 744 acres to California's state park system, land now preserved as D. L. Bliss State Park on the southwestern shore of Lake Tahoe. □

This article is adapted from Jack Harpster's eighth book, Lumber Baron of the Comstock Lode: The Life and Times of Duane L. Bliss (American History Press, 2015).

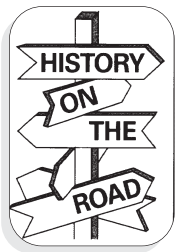
NOTES

1. Historian Donald J. Pisani noted that logging here was no more destructive than elsewhere but that it attracted more attention once wealthy Californians began vacationing there in the 1880s. "Lost Parkland: Lumbering and Park Proposals in the Tahoe-Truckee Basin," *Journal of Forest History* 21(1) (January 1977): 9, 10–11.

HISTORY ON THE ROAD

JOHN MUIR AND ALDO LEOPOLD IN WISCONSIN

By Thomas J. Straka and James G. Lewis



Forest and conservation history enthusiasts and practitioners traveling to the Madison, Wisconsin, area often make a 46-mile pilgrimage north to Baraboo to visit Aldo Leopold's Shack. The small cabin is where Leopold and his family experimented with restoring exhausted farmland while he worked up his ideas into what became his land ethic, articulated in *A Sand County Almanac*. The site is well documented and worth visiting, as is the wonderful visitors center.

But another famous conservationist also had his formative experiences in Wisconsin, though he is not usually associated with the state. Just northeast of the Shack (15 miles as the crow flies, about 30 miles by car) is the farm site where John Muir spent most of his childhood and where he began to develop his naturalist's skills and an appreciation of wilderness. Just as the sand county property spawned an environmental philosophy, a small farm property helped inspire a passion for preserving things natural. Aldo Leopold wrote

about the connection in *A Sand County Almanac* while describing the "good oak" as a means to survive a February blizzard:

The saw now severs 1865, the pith-year of our oak. In that year John Muir offered to buy from his brother, who then owned the home farm thirty miles east of my oak, a sanctuary for the wild flowers that had gladdened his youth. His brother declined to part with the land, but he could not suppress the idea: 1865 still stands in Wisconsin history as the birthyear of mercy for things natural, wild, and free.¹

Leopold wrote a letter to the Wisconsin Conservation Department just one week before he died (on Muir's birthdate, April 21, in 1948) proposing that the Muir homestead at Fountain Lake be made the state's first natural area. It did not become the first state natural area, but most of the homestead is now protected.²

John Muir was 11 when his family moved from Scotland to Wisconsin in 1849. He spent nearly eight years at Fountain Lake and another four years at their second homestead, Hickory Hill,

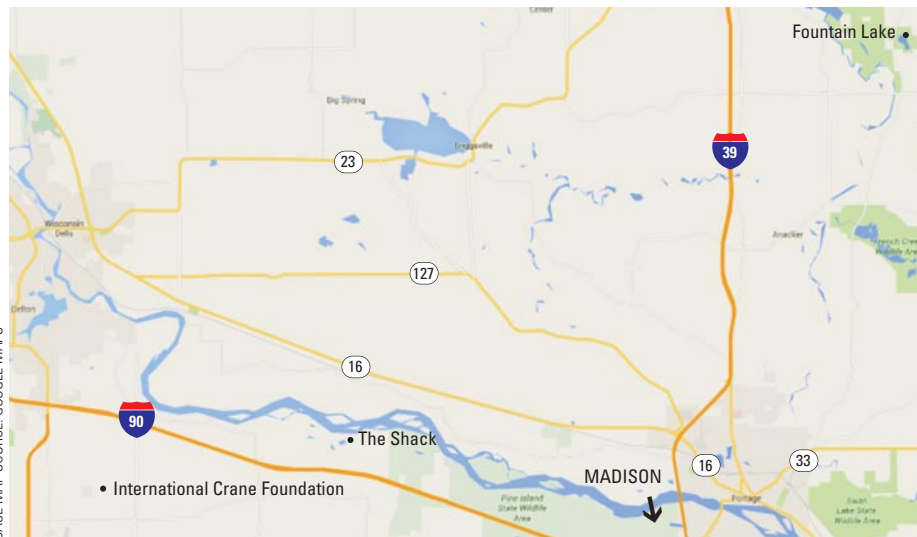
about four miles southeast, before leaving to spend nearly three formative years at the new university in Madison.³ The foreword to one of the best books on John Muir's Wisconsin days recommends it "for the kind of reader who likes to get to roots, to cause, to influences, to the core."⁴ Likewise, this road trip is for someone who desires to get to the heart of John Muir.

His first vision of the Wisconsin wilderness was one of awe and wonderment:

This sudden splash into pure wildness—baptism in Nature's warm heart—how utterly happy it made us! Nature streaming into us, wooingly teaching her wonderful growing lessons, so unlike the dismal grammar ashes and cinders so long thrashed into us. Here without knowing it we were still at school; every wild lesson a love lesson, not whipped but charmed into us. Oh, that glorious Wisconsin wilderness! Everything new and pure in the very prime of the spring when Nature's pulses were beating highest and mysteriously keeping time with our own! Young hearts, young leaves, flowers, animals, the winds and the streams and the sparkling lake, all wildly, gladly rejoicing together!⁵

The land where Muir was baptized (literally) and into the experience of wilderness is only 50 miles from Madison. Fountain Lake, now called Ennis Lake, still answers to Muir's description.⁶ The first homestead was on the north side of the lake; the meadow he tried to protect was near the homestead; his swimming hole (where he almost drowned) was a small basin at the south end of the lake.⁷ The original house is long gone, but the lilacs and silver maples planted by the Muirs are still there.⁸ A trail around the lake lets you view the entire property. Muir said of Fountain Lake,

Our beautiful lake, named Fountain Lake by father, but Muir's Lake by the



The sites relating to John Muir and Aldo Leopold outside Madison are a short drive from one another but not close enough to visit all in one day. The Muir sites can be seen in one day.

neighbors, is one of the many small glacier lakes that adorn the Wisconsin landscapes. It is fed by twenty or thirty meadow springs about a half mile long, half as wide, and surrounded by low finely-modeled hills dotted with oak and hickory, and meadows full of grasses and sedges and many beautiful orchids and ferns. First, there is a zone of green, shining rushes, and just beyond the rushes a zone of white and orange water-lilies fifty or sixty feet wide forming a magnificent border. On bright days, when the lake was rippled by a breeze, the lilies and star-spangles danced together in radiant beauty, and it became difficult to discriminate between them.⁹

Close by is Hickory Hill, the second homestead, still a working farm in private ownership. Visiting Hickory Hill takes special arrangements, but the red barn Muir helped build and the well he dug through 80 feet of sandstone are still there.¹⁰ Many of his adventures took place on nearby Wolf Hill and Observatory Hill.¹¹ Observatory Hill is a state natural area with a hiking trail to the top. There you can rest on the same boulders where John Muir sat as he first pondered the glaciated landscape around his farm, with its terminal moraine, kettles, and glacial lakebeds.¹² Muir gained an early knowledge of the action of glaciers that proved valuable later in his role as a naturalist and geologist. A United Presbyterian church, with graves of family members and friends, is close by, and Knights Lake, where the Muir children were baptized by their father, is not far from Hickory Hill.

From 1861 to 1863 Muir attended the University of Wisconsin for six terms. If one walks to the end of State Street from the state capitol, the walk will end at the foot of Bascom Hill with a view of Bascom Hall. To the immediate right is the Wisconsin Historical Society. Inside, at ground level in a display case, is Muir's famous desk that he used for studying.¹³ Muir described his desk:

I invented a desk in which the books I had to study were arranged in order at the beginning of each term. I also made a bed which set me on my feet every morning at the hour determined on, and in dark winter mornings just as the bed set me on the floor it lighted a lamp. Then, after the minutes allowed for dressing had elapsed, a click was heard



COURTESY OF PATRICIA STRAKA

The view from Observatory Hill today, where a young John Muir first pondered the glaciated landscape around his farm.

and the first book to be studied was pushed up from a rack below the top of the desk, thrown open, and allowed to remain there the number of minutes required. Then the machinery closed the book and allowed it to drop back into its stall, then moved the rack forward and threw up the next in order, and so on, all the day being divided according to the times of recitation, and time required and allotted to each study.¹⁴

Muir lived in the North Hall dormitory at the university. North Hall is still there at the top of Bascom Hill to the right (north) as you look up the hill. His room was in the northeast corner of the first floor, according to university sources.¹⁵ A little farther north, just across the road from the north end of the building, is Muir Knoll with a granite marker by a black locust tree. This may be a clone of the black locust from which Muir obtained his first botany lesson.¹⁶ It would be where he stood as a fellow student handed him the flower from a locust and asked him to identify the family of the tree. Muir replied, "I don't know anything about botany." To that, the inquisitor said it did not matter: "What is it like?" Muir responded, "It is like a pea flower." Muir was correct, but



WISCONSIN HISTORICAL SOCIETY, WHS-68243

While a young man in Wisconsin, John Muir invented several items, including this clock-desk, which can be seen at the Wisconsin Historical Society. Note that the legs are made to look like drafting compasses.

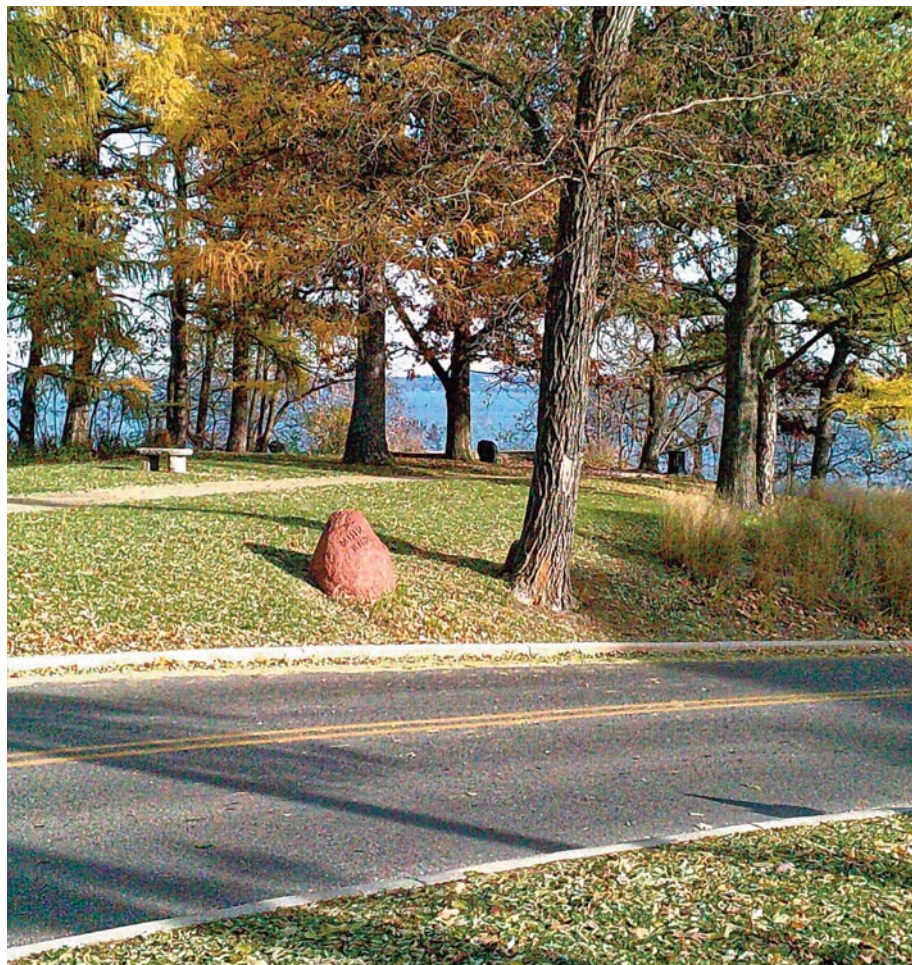
objected, “How can that be when the pea is a weak, clinging, straggling herb, and the locust a big thorny hardwood tree?” Apprehending that both had the same essential characteristics and thus belonged to the same family was the beginning of a lifetime of botanizing. “This fine lesson charmed me and sent me flying to the woods and meadows in wild enthusiasm. Like everyone else I was always fond of flowers, attracted by their external beauty and purity. Now my eyes were opened to their inner beauty, all alike revealing glorious traces of the thoughts of God, and leading on and on into the infinite cosmos.”¹⁷

If instead of the interstate you take U.S. 51 North out of Madison to visit the Muir farm sites, just south of Poynette you will find a state historical marker on the west side of the highway; it marks the “John Muir View.” He’d often stop here to admire the view on the long walk to and from Madison.¹⁸ If you’d like to see where Muir did much of his botanizing in Madison, a wonderful trek is the Lakeshore Path from Muir Woods to Picnic Point (the peninsula jutting out into the lake, about a two-mile one-way trip). In 1863 Muir left the university to continue his life’s journey, writing, “I bade my blessed Alma Mater farewell. But I was only leaving one university for another, the Wisconsin University for the University of the Wilderness.”¹⁹

The original Muir farm is 50 miles north of Madison. From Interstate 39, take Exit 87 at Portage and State Route 33 for about four miles to County Road F, and then turn left and proceed north for about 10 miles to the John Muir Memorial County Park, the farm site. The Observatory Hill State Natural Area is north of the park; it has a trail that leads to a superb observation point where John Muir sat and pondered. In 1906 a local resident found “J. Muir 1856” carved into the limb of a cedar tree on the hill. John was assigned to help build a corduroy road (built with tamarack logs) through a marsh in 1854; today that section is part of 13th Road, downslope from the United Presbyterian church cemetery.²⁰ If one wants to walk in the steps of young John Muir, this would be the road trip; those steps can even be on a road that John Muir helped build.

UNIVERSITY OF WISCONSIN ARBORETUM

While in Madison, you can also walk in the footsteps of Leopold.²¹ A stop at the U.S.



COURTESY OF PATRICIA STRAKA

Muir Knoll, located on the campus of the University of Wisconsin, marks where John Muir received his first botany lesson. It is located across from North Hall, where he lived.

Forest Service’s Forest Products Laboratory, where Leopold spent four years as assistant director after transferring from the Southwest, is interesting in its own right but not instructive about the man. Noting he was a forester directing engineers and scientists, one colleague characterized him as a “fish out of water.”²² Rather, the University of Wisconsin Arboretum offers an opportunity to better understand Leopold’s work at the Shack. The arboretum was established about the time Leopold became a professor at the university, and he was an early enthusiast of using it as an ecological restoration project.²³ As one of the speakers at its dedication in 1934, he gave his vision for what it would be: “Our idea, in a nutshell, is to reconstruct, primarily for the use of the University, a sample of original Wisconsin—a sample of what Dane County looked like when our ancestors arrived here during the 1840s.”²⁴ On his way to the Shack each July, Leopold would watch for a country cemetery whose fence protected a remnant of the long-gone prairie. Every summer it

would produce “a man-high stalk of compass plant or cutleaf Silphium, spangled with saucer-sized yellow blooms resembling sunflowers.”²⁵ The arboretum influenced his work at the Shack, and vice versa. He participated in establishing the Curtis Prairie, a former horse pasture that is now the world’s oldest restored prairie.²⁶ The Leopold Pines represent his idea to create a northern Wisconsin pine community on the arboretum. You do not have to drive up to the sand counties to see Leopold’s footprints; they are close by at the arboretum.

INTERNATIONAL CRANE FOUNDATION

The two conservation icons both wrote of cranes, especially sandhill cranes. Muir wrote that when he visited the meadows, he would return with “wonderful stories of the great long-legged birds.”²⁷ Leopold wrote in *A Sand County Almanac*,

To the residual lagoons came the cranes, bugling the defeat of the retreating winter, summoning the on-creeping host



Both John Muir and Aldo Leopold wrote of sand cranes. The International Crane Foundation in Baraboo, Wisconsin, works to preserve cranes and their habitats and flyways around the world.

of living things to their collective task of marsh-building. Floating bogs of sphagnum moss clogged the lowered waters, filled them.... The lagoons disappeared, but not the cranes. To the moss-meadows that replaced the ancient waterways they returned each spring to dance and bugle and rear their gangling sorrel-colored chicks, but colts. I cannot explain why. On some dewy June morning watch gambol over their ancestral pastures at the heels of the roan mare, and you will see for yourself.²⁸

Continuing, he asks, “How can management restore the shrinking species, like prairie grouse, already hopeless as shootable game? How can management restore the threatened ratites, like trumpeter swan and whooping crane? Can management principles be extended to wildflowers?²⁹

Only seven miles west of Leopold’s Shack is the International Crane Foundation, which attempts to answer those questions.³⁰ It was founded in 1973 to restore wild populations of crane species and to sustain the places where cranes live. It is worth the side trip to see something that was important to both Muir and Leopold. Guided and self-guided tours and exhibits introduce visitors to issues affecting crane populations, like flyway conservation, watershed management, ecosystem restoration, cultural connections, and conservation leadership. One emphasis is saving the whooping crane from extinction.

Aldo Leopold said of the cranes in Sand County that if you “gambol over their ancestral pastures... you will see for yourself.”³¹ Here, as in Madison, are nearby places to gambol. □

Thomas Straka is a professor of forestry and natural resources at Clemson University and a frequent contributor to “History on the Road.” James G. Lewis is the staff historian at the Forest History Society and editor of this magazine.

NOTES

1. Aldo Leopold, “February—Good Oak,” *A Sand County Almanac, and Sketches Here and There* (New York: Oxford University Press, 1949): 15–16. This connection was noted in Erik R. Brynildson, “Restoring the Fountain of John Muir’s Youth,” *Wisconsin Academy Review* 35(1) (December 1988): 4–10. Actually John Muir offered to buy the farm from his brother-in-law.
2. Brynildson, “Restoring the Fountain of John Muir’s Youth,” 6.
3. Millie Stanley, *The Heart of John Muir’s World* (Madison: Prairie Oak Press, 1995).
4. Tim Hirsch, Foreword, in Stanley, *The Heart of John Muir’s World*, xi–xii.
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16. R. Bruce Allison, *Every Root an Anchor: Wisconsin’s Famous and Historic Trees*, 2nd ed. (Madison: Wisconsin State Historical Press, 2005), 76–78.
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21. Levi Wood, “Walking in Leopold’s Footsteps,” *Arboretum News (Naturalists Notes)*, March 8, 2015, accessed at <http://uwarboretum.org/news/singlePost.php?id=674&origin=news&activeCategory=1>.
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27. Muir, *Story of My Boyhood and Youth*, 97.
28. Leopold, “Wisconsin—Marshland Elegy,” *A Sand County Almanac*, 98.
29. Leopold, “The Land Ethic—Land Health and the A-B Cleavage,” *A Sand County Almanac*, 222.
30. The International Crane Foundation’s website is www.savingcranes.org.
31. Leopold, “Wisconsin—Marshland Elegy,” *A Sand County Almanac*, 98.

BOOKS AND FILMS OF INTEREST

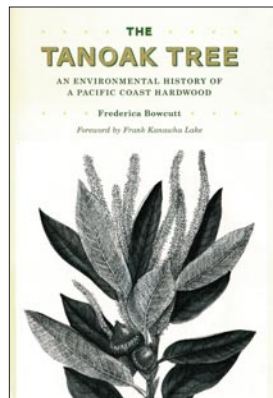
by Jason Howard, Eben Lehman, and James G. Lewis



In January 1900, Frederick Weyerhaeuser purchased 900,000 acres of forestland in western Washington. This transaction announced to the world that the epicenter of the American lumber industry had shifted from the Midwest to the Pacific Northwest, where economic opportunity awaited in the form of vast forest landscapes and one particular tree: the Douglas-fir. The importance of this tree species over the first half of the twentieth century is detailed by Emily Brock in *Money Trees: The Douglas Fir and American Forestry, 1900–1944* (Oregon State University Press, 2015). Although Weyerhaeuser and other lumbermen fully understood the economic potential of the Douglas-fir forests, ecological knowledge about these forests was extremely limited. Brock discusses how the industrial development of the Pacific Northwest spurred the evolution of a scientific understanding of the Douglas-fir forest and how this ecological understanding further affected forest policy. The book's narrative also traces the U.S. Forest Service's parallel development of forest research, an effort initiated by Raphael Zon, which eventually contributed to ecological approaches to forest management. The new approaches also changed relationships between professional foresters and lumber companies during this time, as the sustained-yield management strategies advocated by foresters began to be widely adopted by industry. Research and strategy came together in 1941 with the creation of the tree farm system, which Weyerhaeuser

and other companies used as public relations tools. The combination of tree farms and state-of-the-art laboratories helped build public confidence in the forest products industry. By documenting the important and evolving relationship between foresters and lumber companies, Brock reveals how foresters ultimately helped industry derive not just economic value but also long-term ecological value from the Douglas-fir forests. (EL)

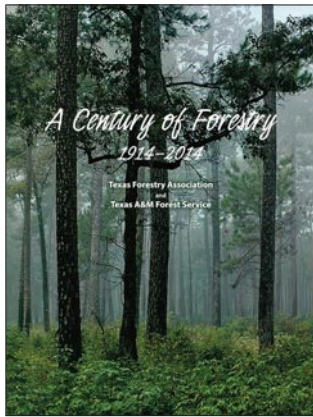
An underappreciated tree species is the subject of a new work by Frederica Bowcutt. *The Tanoak Tree: An Environmental History of a Pacific Hardwood* (University of Washington Press, 2015) examines the economic, ecological, and cultural importance of tanoak. Bowcutt argues that tanoak is intertwined with the human history of



California over thousands of years. Tanoak acorns were an abundant food source for Native Americans and formed the basis of an indigenous food economy—salmon was the only food consumed in larger quantities by early populations in northern California—and acorns continued to be an important food source well into the nineteenth century as settlers began to use them as livestock feed. Tanoak's value further increased after its bark was found to have high concentrations of tannins. Used to produce durable leathers, tanoak bark help build a massive tanning industry in California. Extensive harvesting of the bark over the second half of nineteenth century took an immense toll on the tanoak forests before

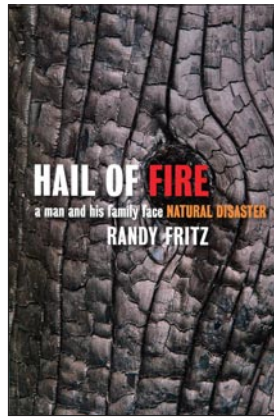
cheaper, nonbark tanning agents became widely adopted. The standing of the tanoak was further undone by lumber companies in the twentieth century. The importance of redwood and Douglas-fir to the California lumber industry ultimately caused a shift in perception: tanoak became viewed as a pest and a competitor for softwood, rather than a cash crop, and foresters began using herbicide treatments to eradicate it. The adverse effects of herbicides led to opposition to their use by the 1970s. Since then, natural diseases have taken their toll, Bowcutt uses such events to mirror larger themes from California's environmental history. The book concludes with an examination of modern collaborative efforts with indigenous tribes (who still value the tanoak as a food source) to conserve the tree in northern California. Throughout this well-researched narrative, Bowcutt brings a clear passion to her subject matter. (EL)

By the turn of the twentieth century, the natural landscape of Texas had been drastically changed. The expansive stands of virgin longleaf pine had largely disappeared because of lumber industry practices, along with unsuppressed wildfires. Deforestation had also led to widespread soil erosion that was affecting the state's streams and rivers. To avoid long-term damage to the natural landscape, leadership and direction in forest management and forest conservation would be needed. Into this vacuum entered the Texas Forestry Association (TFA), which was established in 1914 to promote forest conservation in the state. TFA members, led by William Goodrich Jones, a banker turned conservationist, continued a decade-old quest to create the Department of Forestry, now called the Texas A&M Forest Service (TFS). With that, Texas became the first state in the nation to establish its state forestry agency as part of a land-grant college. Since their creation, TFA and TFS have worked to establish pine seedling nurseries, fire control projects, and state-administered forest



areas. The history of both organizations is examined in *A Century of Forestry, 1914–2014: Texas Forestry Association and Texas A&M Forest Service* (Donning Company Publishers, 2014), by Ronald F. Billings. The illustrated book recounts a century of Texas’s forest history, detailing important events such as the founding of state and national forests, the establishment of a state tree farm system, developments in forest research, urban forestry initiatives, and the founding of the Texas Forestry Museum. It also examines a century of work by both organizations in forest management, fire control, reforestation, entomology, and other areas. Sidebars highlight individuals—including every state forester—involved in the state’s forestry efforts. With its large format and attractive presentation, the book would make an excellent gift for anyone interested in Texas history or forestry history in general. (EL)

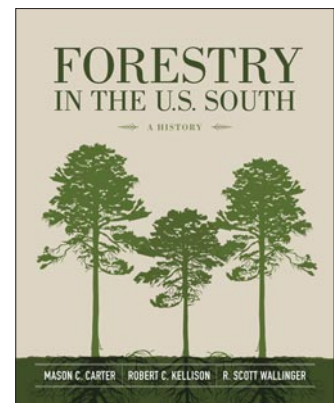
In early September 2011, three separate wildfires burning in eastern Texas merged into one large one, creating the most destructive wildfire in state history. The fire consumed more than 32,000 acres and 1,660 homes, as well as 90 percent of the pine forest in Bastrop State Park, home to the Lost Pines forest. The emotional toll of this historic wildfire on an individual is the subject of Randy Fritz’s deeply moving memoir of what he went through when the natural disaster claimed the dream home he had built and displaced his family for months. The fire forever changed their lives and the landscape they loved. In *Hail of Fire: A Man and His Family Face Natural Disaster* (Trinity University Press, 2015), Fritz, who was an administrator for the Texas Department of State Health Services, relives the fire and the grieving and recovery that followed. Readers are at his elbow as his family learns that everything they owned was vaporized. Weeks



of self-doubt and second-guessing followed. The author shares the journey that unfolds as he and his wife and daughters learned about themselves and what mattered most to them. Fritz is at turns revelatory, poignant, and heart wrenching—but always honest and engaging. (JL)

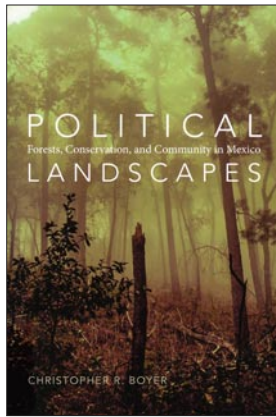
In 1984 Thomas Clark published *The Greening of the South: The Recovery of Land and Forest*. His “attempt to give some degree of historical perspective to a tremendously important phase of changing resource management in the [U.S.] South” was not, however, in his words, “intended to be a history of the southern lumber industry or of any wood-using industry.” Yet one cannot talk about the history of scientific forest management in the region without discussing why it became necessary in the first place or its impact on either industry. *Forestry in the U.S. South: A History* (Louisiana State University Press and the Forest History Society, 2015) succeeds in doing so, and from a perspective not often taken by historians. Most often historians either tell it from a top-down perspective, usually how outsiders, typically in the guise of the U.S. Forest Service or Soil Conservation Service or state agencies, “rescued” the South, or how locals used their knowledge and helped the land heal itself. What has long been overlooked is the role that corporations and industrial forestry, as well as large private landowners, have had in successfully regenerating the forest through intensive management and extensive research to the point that in the last couple of decades the forest is perceived as a “wall of wood.” Now concerns about that wall coming down have emerged following the creation of timber investment management corporations and real estate investment trusts in 1996. Between then and 2009, the two entities made more than 90 percent of all forestland purchases in the

United States. Forests became commodities to be traded, not managed. Consequently, research in forest productivity has dropped off and the dynamic of private forestry and ownership has changed. To understand what these recent changes may mean for the future of the “wall of wood,” who better to tell the story of the impact of scientific forest management on the region than three people who have worked in all the major areas of forest management throughout the region, including the private sector, education, and research? Foresters Mason Carter, Robert Kellison, and Scott Wallinger have 154 years of combined experience in southern forestry. They mix their insiders’ knowledge with new interviews and extensive research to comprehensively tell the story of why and how forest management enabled the standing volume of commercial timber in the South to become 80 percent greater and the annual net growth 72 percent higher in 2001 than in 1953. This book, which includes plentiful graphs and



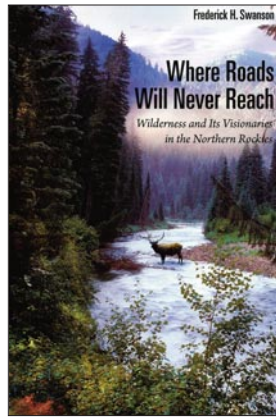
charts and sidebars explaining terms or offering biographical sketches, would be ideal for use in numerous courses, from forest history to history of science classes. (JL)

Moving south of the border, we turn now to Christopher R. Boyer’s *Political Landscapes: Forests, Conservation, and Community in Mexico* (Duke University Press, 2015), which provides an excellent overview of a century of environmental and political history in Mexico. “Political landscapes” are defined by Boyer, a leading scholar in Latin American environmental history, as “places where contention over resources has provoked official intervention and forced historical actors to negotiate with the bureaucrats who ultimately determine which social groups will gain access to the land and its fruits.” This unique take reveals the profound environmental impacts of not just natural processes but of Mexico’s



political history as well. Boyer begins with the late-nineteenth-century presidency of Porfirio Diaz, documenting the changes in forest policy and their consequences for local communities through the Mexican revolution and postwar period and into the late twentieth century. He details how Mexico's forests have been shaped by political currents like the revolutionary ideals of Lazaro Cardenas, under whom forest policy emphasized the integration of rural populations in forest use and management. In the postwar era, national development was given precedence over rural autonomy, and logging companies began to wield greater influence. In the latter part of the twentieth century, projects ceded control back to local communities. At different times, *campesinos*, politicians, and conservationists have exerted a dominant influence on forest landscapes and policies. The book offers case studies of two states—Chihuahua and Michoacan—selected because of their large indigenous populations and the historical role that forest industries have played there. Throughout, Boyer places this environmental history in the broader context of Mexico's history. His work is always an excellent addition to the literature, and this book is no exception. (EL)

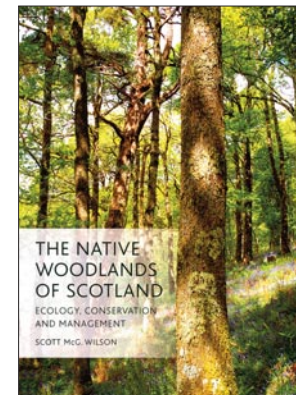
Following World War II, the abundance of pine, spruce, and fir in remote areas of Idaho and Montana represented a vast untapped natural resource to the U.S. Forest Service. But to extract the timber, an extensive network of roads needed to be constructed. What the agency did not anticipate was a coordinated local opposition to its plans. The resulting fight over these wilderness areas is the subject of *Where Roads Will Never Reach: Wilderness and Its Visionaries in the Northern Rockies* (University of Utah Press, 2015), by Frederick H. Swanson. The biographer of Montana-based forester and conservation



leader Guy M. Brandborg, one of the road-building opponents, Swanson covers the battles over wilderness access on federal lands in northern Idaho and western Montana from the 1950s through the 1980s. This area had been described by an early wilderness advocate as “the greatest forest wilderness still left in the country,” and many of those living in its shadows were willing to fight for its permanent preservation. This is a story of unexpected alliances between hunters, fishermen, outdoor enthusiasts, scientists, and concerned local citizens who banded together to advocate for protected wilderness areas. Largely a grass-roots effort, without direct assistance from national environmental organizations, this local fight eventually engaged powerful allies, such as Montana senator Lee Metcalf and Idaho senator Frank Church. The wilderness advocates who objected to construction of logging roads in backcountry areas emphasized the protection of forest habitats for game and the protection of streams and rivers for fish. Their coordinated effort worked: the federal government set aside many important wilderness areas in the northern Rockies. Their effort also led to new legislation and policy decisions, including the Forest Service's Roadless Area Review and Evaluation (RARE) policy of the 1970s. Through it all, both sides sought to balance a need for natural resources extracted from forests with the importance of preserving wilderness areas for outdoor recreation pursuits. Ultimately, Swanson shows how grass-roots efforts can alter national environmental policy. (EL)

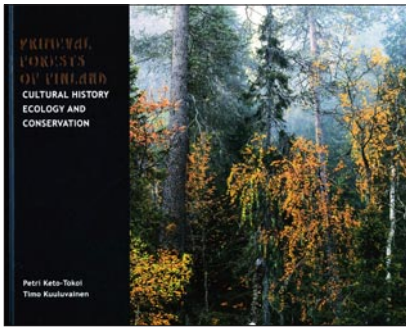
Native woodlands once covered nearly 60 percent of Scotland's land area but now are found on only 4 percent of the landscape. Their relative scarcity only highlights their importance as areas of biodiversity, as well as their value for soil protection,

flood prevention, carbon sequestration, natural scenery, and outdoor recreation. The history, ecology, and management of these areas are the subject of *The Native Woodlands of Scotland: Ecology, Conservation, and Management* (Edinburgh University Press, 2015), by Scott McG. Wilson. He takes the reader on a tour of native woodland habitats throughout Scotland, emphasizing their immense value. Wilson places the habitats in both ecological and historical contexts within the greater Scottish landscape, as well as within an international forest context, detailing the ecological development of Scotland's native woodlands from the last ice age to the twenty-first century. Wilson also discusses the conservation and management of existing woodlands, including the relationships between plantation forests and native woodlands. Another chapter covers the history of conservation efforts, with an overview of relevant policy and law and detailed information on issues relating to wildlife management, regeneration efforts, invasive plant species, and silvicultural techniques. The book concludes with information on visiting forest sites throughout the country. A textbook intended for students in forestry and the environmental sciences, *The Native*



Woodlands of Scotland is also for those with a general interest in Scotland's land management, woodlands, wildlife, and natural history. (EL)

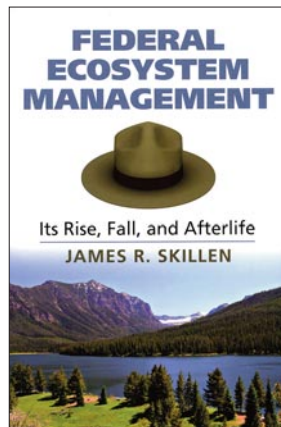
From Scandinavia comes *Primeval Forests of Finland: Cultural History, Ecology and Conservation* (Maahenki, 2014), by Petri Keto-Tokoi and Timo Kuuluvainen. The book celebrates the cultural and ecological importance of Finland's natural boreal forests. Keto-Tokoi and Kuuluvainen open with a discussion of how we define a “natural” forest and how such forests cannot be viewed in absolute terms: environmental factors mean that forests have different



and changing states of naturalness. The authors then delve into the role of the forest in Finland's art and folklore and how it has served for centuries as a national symbol. In fights over forest conservation in Finland throughout the twentieth century, nature conservationists have proven to be effective even in periods of economic growth and development. The natural forests are treasured and widely considered too valuable to sacrifice for short-term economic gain. Nevertheless, conservationists and forest industry tussled over the protection of the North Lapland wilderness areas in the latter part of the twentieth century. The book's visuals—the large, full-color photos, maps, and illustrations—are beautiful and engaging. (EL)

By the 1990s, the U.S. federal land management agencies faced a series of mounting ecological, legal, and political challenges. Rigid standards of preservation and multiple-use conservation were no longer meeting the needs of land managers and policymakers. The agencies turned to ecosystem management, a new, complex, and flexible approach that was supposed to be a better match for modern ecological and political systems. The history, implementation, and legacy of ecosystem management are the subject of James R. Skillen in *Federal Ecosystem Management: Its Rise, Fall, and Afterlife* (University Press of Kansas, 2015). Skillen discusses the events that precipitated this controversial shift in management strategy, as an old framework was adapted to a changing legal landscape. The change came largely out of the environmental movement: new ecological perspectives produced new legal and political mandates for land management. Tension between federal agencies and the new environmental protection requirements forced the shift to the ecosystem management approach. The book follows debates over ecosystem management through the presidencies of George H. W. Bush and Bill Clinton and contrasts their different

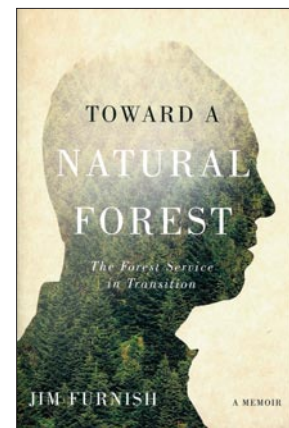
approaches. The 1990s saw both support for and opposition to ecosystem management as environmental and economic interests vied for predominance. Case studies illustrate the author's thesis. A chapter on Yellowstone National Park reveals how the National Park Service shifted to a more ecologically informed model of wildlife management over the course of the late twentieth century, creating problems as grizzly bears moved far beyond park boundaries. Chapters on the Northwest Forest Plan and the Interior Columbia Basin Ecosystem Management Project further demonstrate the challenges of implementing ambitious ecosystem management projects. Skillen, whose previous book is *The Nation's Largest Landlord: The Bureau of Land Management in the American West*, brings a high level of expertise to the subject of federal land management. Both works present



much-needed histories of the challenges of federal natural resources management. Although ecosystem management ultimately fell out of favor in the early twenty-first century, at least in political circles, many of its principles continue to play a role in land management decisionmaking. (EL)

There is a saying that only Nixon could go to China. When it comes to the U.S. Forest Service, it may take a former employee to tell the truth about how the agency went from hero to villain in the eyes of the environmental community and how it can return to its former position as a leader in land management. Perhaps Jim Furnish, who started with the U.S. Forest Service as a seasonal employee in Oregon in 1965 and finished his career 37 years later in Washington, D.C., as the deputy chief of the National Forest System, can serve as the agency's Nixon. At the start of his career, he unquestioningly accepted the agency's timber-first policies. But as he

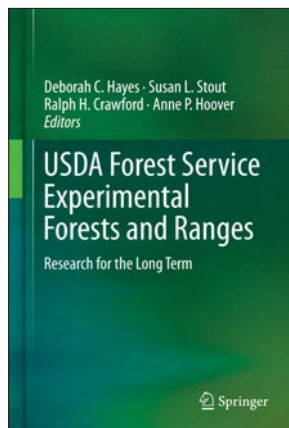
changed jobs and began to ascend the agency's organizational chart, Furnish's land ethic evolved faster than that of the agency he still loves. Both Furnish and the Forest Service shifted their management goals from timber production to ecosystem management, but Furnish did so willingly after he saw the harm clearcutting was having; the agency did so only under court order in the wake of the northern spotted owl controversy of the late 1980s. While assistant forest supervisor and then supervisor of the Siuslaw National Forest in Oregon from 1991 to 1999, Furnish guided a timber-producing forest into the new era of ecosystem management, with controversial management goals that included a smaller timber harvest, closing of forest roads, and fish habitat restoration. His accomplishments caught the attention of Washington leadership, and Chief Mike



Dombeck named him deputy chief of the National Forest System, an unusual promotion several rungs up the organizational ladder. As deputy chief (1999–2002), Furnish helped carry out Dombeck's agenda, which focused on watershed restoration and setting aside roadless areas for protection, the latter a contentious issue that would not be settled by the courts until 2012. Furnish concludes his bare-knuckled memoir *Toward a Natural Forest: The Forest Service in Transition* (Oregon State University Press, 2015) with his "green manifesto" and a discussion of the challenges the Forest Service faces in the coming years. Well written and clear eyed, the book is a good complement to Skillen's book because of its insider's account of how the Forest Service struggled to implement ecosystem management on the national forest level. (JL)

The U.S. Forest Service's experimental forests and ranges have served as important

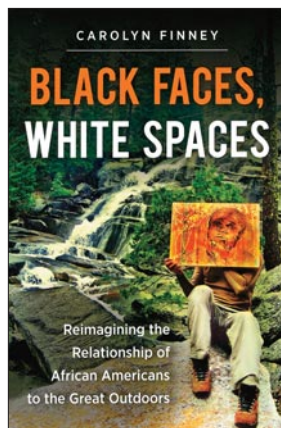
forestry research and education sites for more than one hundred years. During this time critical long-term ecological research projects have been completed, and important questions involving natural resources have been addressed, producing extensive information about America's forests. The history of these sites and the legacy of the research performed at them are the subject of *USDA Forest Service Experimental Forests and Ranges: Research for the Long Term* (Springer, 2014). Edited by Deborah C. Hayes, Susan L. Stout, Ralph H. Crawford, and Anne P. Hoover, this mammoth work (nearly 700 pages) offers 30 essays on experimental forests and ranges and their influence on science, policy, and natural resources management. Former U.S. Forest Service national historian Aaron Shapiro opens the book with a summary history of federal forest research and experimental



ranges, the concept of which dates to the late nineteenth century but was first implemented by Raphael Zon, who established the Fort Valley Experiment Station in Arizona in 1907. The history of other research sites is explored in subsequent chapters on influential projects in forest ecology, wildlife, fire, and hydrology. Chapters describe research on longleaf pine ecosystems, clearcutting, termite control, watershed management, acid rain, and fire management. The book concludes with an essay by Peter Stine of the agency's Pacific Southwest Research Station on the future of Forest Service experimental forests and ranges, looking at threats to forests and the future of data collection and sharing. This book serves as a reference for students and researchers on meeting environmental challenges through applied scientific study. (EL)

Stories of land, forests, and the environment are deeply rooted in American his-

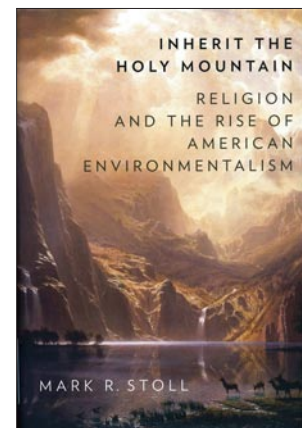
tory. When it comes to African Americans, though, many of these stories have been marginalized and reinterpreted. In *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors* (University of North Carolina Press, 2014), Carolyn Finney examines the African American experience in nature. Finney's motivation for this book stems from her travels as a student and her own family history. For 50 years Finney's family lived on and maintained a wealthy couple's country estate outside New York City. Her family's experience prompted her to ask how individuals connect to landscapes and environment. She examines movies, literature, pop culture, and historical resources to uncover how African Americans have perceived the environment. Memories of slavery and segregation, she finds, still affect human-environmental



relationships within the African American community. The opening chapter borrows an idea from filmmaker Spike Lee, arguing that African Americans have been "bamboozled" into accepting a false narrative about their collective relationships with the land and environment—namely, that the legacies of slavery, Jim Crow, and racial violence have shaped cultural beliefs and understandings. Finney's observations also led her to ask many questions about ownership and who has the economic power to make environmental decisions. Finney looks at the difficulties of discussing race and diversity and challenges environmental practitioners and policymakers not to overlook race when making environmental decisions. *Black Faces, White Spaces* brings a new and important perspective to environmentalism and conservation. (JH)

How do faith and religion relate to American environmentalism? Environmental historian Mark R. Stoll looks at this

question in *Inherit the Holy Mountain: Religion and the Rise of American Environmentalism* (Oxford University Press, 2015). Stoll finds that the American environmental movement had religious foundations that gave environmentalists moral and cultural perspectives on the world and direction and tone for their actions. He explores how specific denominational origins corresponded with sets of ideas about nature and environment, looking at early Calvinism and modern Presbyterianism—a large proportion of mid-twentieth-century environmental leaders were raised Presbyterian—and discusses how adherents interpreted nature as a spiritual resource. *Inherit the Holy Mountain* also considers how landscape artists from different religious backgrounds interpreted nature through a visual medium. The book concludes with a discussion of current religious implications



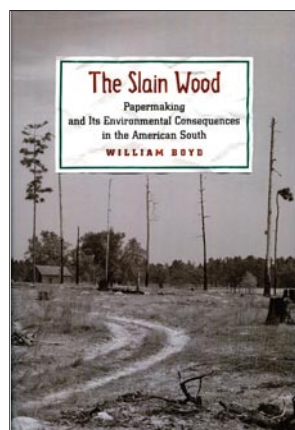
for the future of American environmentalism, and how the past may influence future environmental decisionmaking. Stoll weaves together early American religious and environmental history in his examination of an often overlooked piece of the historical puzzle. An excerpt from this book, on the Congregationalists of the Connecticut River valley, appears on page 37 of this issue. (JH)

Readers interested in the connection between Christianity and environmentalism will want to check out Evan Berry's *Devoted to Nature: The Religious Roots of American Environmentalism* (University of California Press, 2015). Berry, who teaches philosophy and religion, found that historians of environmentalism typically split the chronology into two eras and, thus, two frameworks. The first framework typically begins in the nineteenth century and emphasizes theological roots. Then after World War II, histories focus on science and legislation and



disregard or ignore the theological roots, even though there is a moral aspect to the postwar environmental movement that has religious roots. Salvation, redemption, and spiritual progress, Berry argues, form the basic context of the American passion for nature and are found throughout the history of American environmentalism. Though the book is primarily concerned with the period between 1914 (when John Muir died) and 1949 (the publication of Aldo Leopold's *A Sand County Almanac*), religion and the environment have a very long relationship in the United States. Whereas Mark Stoll's book (above) goes deeply into religious denominations and theology, Berry presents a broader view of Christianity as it relates to human ecology and spiritual experiences. (JH)

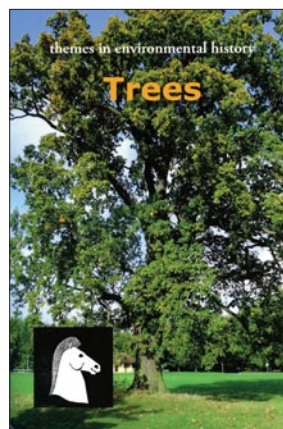
During the 1930s, when the paper industry moved to the South, pine trees became a cash crop. But labor markets, cutover lands,



and soil erosion were just a few of the problems that slowed paper production. In *The Slain Wood: Papermaking and Its Environmental Consequences in the American South* (John Hopkins University Press, 2015), William Boyd chronicles the pulp and paper industries in the American South

during the twentieth century. The book draws on interviews and rich histories to tell the story of this industry and the social and environmental changes that came with it. Boyd has organized the book around problems the companies faced during southern expansion: the making of the "industrial forest" in the South, the social organization of logging and wood procurement, the management of race and class in the context of mill labor, the distinctive capital requirements in the industry, and the politics of environmental pollution associated with pulp and paper production. Boyd concludes this important study with a discussion of the state of today's southern lumber industry. (JH)

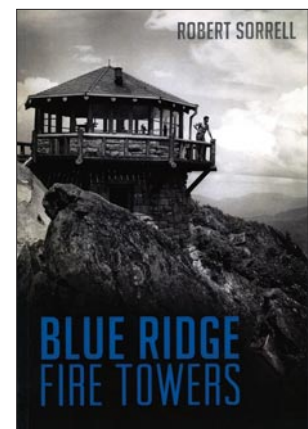
Trees, a new entry in the *Themes in Environmental History Series* (White Horse Press,



2015), is a collection of essays selected from the academic journals *Environment and History* and *Environmental Values*. Each volume in the series mixes theoretical work with case studies. Compiled by Sarah Johnson, *Trees* contains four sections that address the disciplinary roots of environmental and forest history on a global scale. The first section focuses on the power derived from having possession of a forest, in Prussian Germany and in ancient India. The second section offers two longitudinal studies of forest change, including Mikko Saikku's "Down by the Riverside: The Disappearing Bottomland Hardwood Forest of Southeastern North America," which explores human-induced environmental change and the drastic changes in ecosystems there. In the "Planting" section, which looks at tree planting and forestry in four places and time periods around the world, Paul Star's "Tree Planting in Canterbury, New Zealand, 1850–1910" describes that country's exotic tree plantations and summarizes the early environmental history of

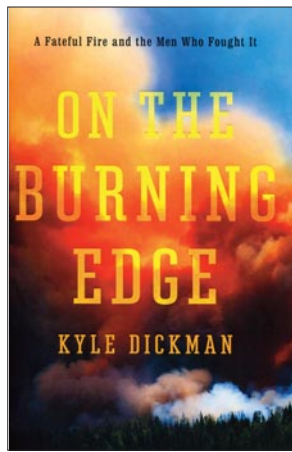
Canterbury and its European settlers. The final section, "Forestry," is subdivided into three: "Practice," "Constructedness and Uncertainty," and "Power, Negotiation and Conflict." Readers will appreciate the global perspectives on forestry and the environment. (JH)

Fire towers in the Blue Ridge Mountains evolved from tents, "makeshifts," and temporary structures to a network of permanent towers. Beginning in the 1930s, government engineers designed the fire towers so that lookouts could more comfortably, effectively, and safely search for fires. Robert Sorrell's *Blue Ridge Fire Towers* (History Press, 2015) details the history of lookout towers in the Blue Ridge forests, from the days of simple platforms in trees to multistoried steel-and-glass buildings



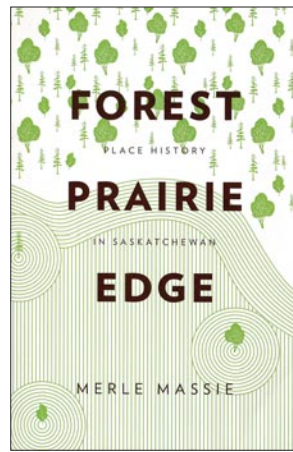
constructed to withstand high winds on ridgetops. He has filled his book with historical photos of towers and the men and women who worked in these structures. Today's technology has enabled forest officials to observe mountains and search for fires from different vantage points, eventually leading to abandonment of towers. Harsh weather conditions and vandalism have contributed to their destruction, but government agencies and private groups are seeking to restore and protect the remaining towers. Sorrell's final chapter deals with the preservation of fire towers and the environmental, economic, and historical benefits of the work. (JH)

If journalism is "the first rough draft of history," journalist Kyle Dickman provides just that in his book about the Yarnell Hill Fire, which killed 19 wildland firefighters in 2013. In *On the Burning Edge: A Fateful Fire and the Men Who Fought It* (Ballantine Books, 2015), Dickman, himself a former professional firefighter, brings a deeper



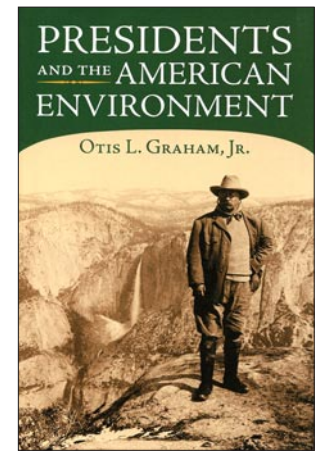
understanding of what the Granite Mountain Hotshots faced while battling the Yarnell Hill Fire, which consumed more than 8,000 acres in northern Arizona’s wildland-urban interface. He takes us inside the culture of firefighting, introducing us to the members of the crew who perished and those they left behind, and reminds us of the dangers and challenges they faced in training and on the job. The book is more than just an account of this one tragic incident. The author places the story in the broader context of wildland fire history and a changing American West, one that is experiencing growing populations and contracting water supplies. The death of firefighters is a story that has been told before in places like Colorado and Montana, and until there is a substantial change in wildland fire policy, it is one that will probably be told again and again. (JL)

Environmental historian and third-generation resident Merle Massie takes her readers to the “prairie province” of Saskatchewan, Canada, a place that few people outside the immediate area associate with trees, even though more than half of it is covered by boreal forest. Massie examines the ecotone where the prairie and forest meet in *Forest Prairie Edge: Place History in Saskatchewan* (University of Manitoba Press, 2015). In particular, she focuses on her native Prince Albert region and its long history of varied use by Aboriginal peoples, and the farmers and natural resource extractors who followed and further transformed the landscape. Massie challenges the long-standing stereotypes and assumptions Canadian historians have held of Saskatchewan as merely a farming, wheat-growing province by focusing on the ecotone. Farming has long been an economic activity there, of course. But



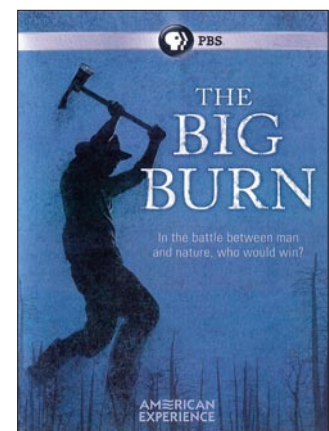
from 1890 until the Great Fire of 1919 swept through (see page 22), many residents of the border country made their living from logging and lumbering; after World War II the region became known mostly for tourism and recreation—all activities not commonly associated with Saskatchewan. Massie’s command of her sources and intimate knowledge of the place and people allow her to weave together a story that is both personal and universal, and always enlightening. (JL)

In 1891, with no fanfare, President Benjamin Harrison signed a bill that gave the president the power to set aside public lands as forest reserves. The Forest Reserve Act, Gifford Pinchot later declared, represented the “beginning and basis of our whole National Forest system.” It also represents the beginning of American presidents’ involvement in managing federal public lands, says Otis L. Graham Jr. in *Presidents and the American Environment* (University of Kansas Press, 2015). Graham opens the book with a summary history of federal land management policies to 1891—in short, give away public land and settle the country. Graham’s synthetic work examines the policies and consequences for the environment of every president from Harrison to Obama, and how each man has related to the natural world. Both Presidents Roosevelt, great conservationists in their private lives and as chief executives, are covered in separate chapters; the rest are grouped by era. Thus Graham provides a useful survey of American environmental history vis-à-vis those 22 occupants of the White House. The book may be of great use in college environmental or American political history classes, in part because the author discusses the secondary literature about each president in the main text and not in the endnotes. It should be used with some caution, however, as the



author gets some basic facts wrong, such as Gifford Pinchot’s age when he was appointed chief of the Division of Forestry in 1898 (he was 32, not 38), and calling Theodore Roosevelt’s creation of the “midnight reserves” in 1907 his “crowded hour”—a phrase Roosevelt used to describe his combat experience in Cuba a decade before—in 1908. (JL)

Produced for the PBS series *American Experience*, “**The Big Burn**” (2014, 52 minutes, www.pbs.org/wgbh/americanexperience/films/burn) tells the dramatic story



of the 1910 fires that swept over the Northern Rockies and consumed 3 million acres in 36 hours, and nearly consumed the fledgling U.S. Forest Service with it. Despite devastating losses of land and men, after the fires the Forest Service fully embraced the policy of fire suppression, a decision the nation is still dealing with. The film is based on Timothy Egan’s book by the same name. Like Egan’s book, the film provides an entertaining story but is not the best take on this seminal event. Rather, the film *Ordeal By Fire* and Stephen Pyne’s book *Year of the Fires* are more balanced, nuanced, and informative takes. (JL) □

MARK YOUR CALENDAR

APPALACHIAN SOCIETY OF AMERICAN FORESTERS

January 27–29, 2016. Durham, North Carolina.
Winter Meeting.
Information at: events.r20.constantcontact.com/register/event?oeidk=a07eaut0bd126f369a5&llr=wzrnwtiab.

NATIONAL COUNCIL ON PUBLIC HISTORY

March 16–19, 2016. Baltimore, Maryland.
Theme: Challenging the Exclusive Past.
Information at:
ncph.org/cms/conferences/2016-annual-meeting.

ILLINOIS WOOD UTILIZATION TEAM

March 18, 2016. Hamburger University in Oak Brook, Illinois.
Theme: Bringing the Urban Forest Full Circle.
Information at: illinoisurbanwood.org/urban-wood-conference.

AMERICAN SOCIETY FOR ENVIRONMENTAL HISTORY

March 29–April 3, 2016. Seattle, Washington.
Theme: Environmental History and Its Publics.
Information at:
aseh.net/conference-workshops/seattle-conference-2016.
Contact: Lisa Mighetto at director@aseh.net.

FOREST HISTORY SOCIETY

April 28–30, 2016. Durham, North Carolina
Board of Directors meeting.
Contact: Andrea Anderson at
andrea.anderson@foresthistor.org.

WESTERN INTERNATIONAL FOREST DISEASE WORK CONFERENCE

May 9–13, 2016. Sitka, Alaska.
Information at: www.fs.fed.us/foresthealth/technology/wif/.

NATIONAL CONFERENCE OF PRIVATE FOREST LANDOWNERS

May 31–June 3, 2016. Orlando, Florida.
Information at:
www.forestlandowners.com/?page=2016Conference.

NORTH AMERICAN FOREST INSECT WORK CONFERENCE

May 31–June 3, 2016. Washington, DC.
Information at: www.cpe.vt.edu/nafiw16/area.html.

ASSOCIATION OF CONSULTING FORESTERS

June 11–14, 2016. Mobile, Alabama. National conference.
Information at: <http://www.acf-foresters.org>.

FOREST PRODUCTS SOCIETY

June 27–29, 2016. Portland, Oregon.
70th International Convention.
Information at: www.forestprod.org/ic/about.php.

SOLCHA VIII SYMPOSIUM

August 3–5, 2016. Puebla, Mexico.
Latin American and Caribbean Society
for Environmental History.
Information at: solcha.uniandes.edu.co/index/images/Convocatorio8SimposioSolcha.pdf.

INTERNATIONAL UNION OF FOREST RESEARCH ORGANIZATIONS

September 26–29, 2016. Foz do Iguaçu, Brazil.
International Congress. Theme: Between Tradition and
Increasing Challenges: Future Development of Small-Scale and
Community Forestry in Times of Global Change. Information
at: <http://www.latinoamericajointiufrommeeting.com>.

ORAL HISTORY ASSOCIATION

October 12–16, 2016. Long Beach, California.
Information at: www.oralhistory.org/annual-meeting.

WESTERN HISTORY ASSOCIATION

October 20–23, 2016. St. Paul, Minnesota.
Information at:
westernhistoryassociation.wildapricot.org/conferences.

FOREST HISTORY SOCIETY

October 27–29, 2016. St. Paul, Minnesota.
Board of Directors meeting.
Contact: Andrea Anderson at
andrea.anderson@foresthistor.org.

LYNN W. DAY DISTINGUISHED LECTURESHIP 2016

November 2016. Durham, NC.
Cosponsored by the Forest History Society.
Information at: www.foresthistory.org/Events/lecture.html.
Contact: Jamie Lewis at james.lewis@foresthistor.org.

SOCIETY OF AMERICAN FORESTERS

November 2–6, 2016. Madison, Wisconsin.
Information at: safnet.org/calendar/index.cfm.

AMERICAN SOCIETY FOR ENVIRONMENTAL HISTORY

March 29–April 2, 2017. Chicago, IL.
Theme: Winds of Change: Global Connections
across Space, Time, and Nature.
Information at: <http://aseh.net/conference-workshops/2017-conference-chicago-1>.
Contact: Lisa Mighetto at director@aseh.net

*For the latest listings, please visit our “Conferences” page at:
www.foresthistory.org/Events/conferences.html.*

ANNUAL REPORT 2015

FROM THE CHAIR

It is an honor for me to serve as the chairman of the Forest History Society, and I appreciate the opportunity afforded me by the board. This outstanding organization combines two of my passions—forestry and history—and I hope to continue the stellar leadership demonstrated by my predecessors. With our 70th anniversary this year, the Society will be recognizing the many contributions of past leaders and stakeholders. Hayes Brown, immediate past-chairman, is one such leader. With his dedication, steady hand, and professionalism, Hayes created an upbeat, productive environment for the organization, and it was during his tenure that FHS made substantial progress in planning for our upcoming new facility. The Society will continue to enjoy Hayes's leadership and counsel as a member of the board of directors.



Chris Zinkhan

For the past two decades, I have served on a team engaged in investments in primarily hardwood forests. One of the most fascinating and critical aspects of this work is discovering the history associated with a prospective property's management and surrounding communities. Without a perspective of the dynamic interactions of the forest ecosystem and forestry practices, natural disturbances, market gyrations, regulatory changes, and community usage and ethos, a professional's understanding of the forest's condition and its likely evolution will be limited. This, too, is why I believe the Forest History Society is an essential organization.

During the past year there is no doubt that the Society was able to fulfill and advance its core mission, to preserve and help people use the documents of forest history. These recent highlights are especially meaningful for me:

- Post-production work was completed and initial public screenings of *America's First Forest: Carl Schenck and the Asheville Experiment* were held. I had the good fortune to attend a screening at North Carolina State University, and the packed house that evening was as enthusiastic about the film and discussion panel as I was.
- One of the core purposes of the Society became even more evident in 2015, when the Weyerhaeuser Company entrusted us with the company archives, shipping 31 pallets of boxes to FHS for safekeeping and indexing. This demonstrates that we must be prepared in the future to accept such significant forest history collections as individuals, corporations, and other organizations shift primarily to electronic records.
- A landmark book, *Forests of the U.S. South*, by Mason Carter, Bob Kellison, and Scott Wallinger was published in cooperation with LSU Press. It is a unique and insightful 386-page look at forestry during the latter half of the twentieth century. The book explores the collaborative research efforts oriented toward

increasing productivity on forestland, many of which will have benefits long into the future, especially as population continues to increase. The book makes a thoughtful and impressive gift—I presented five of them to friends and colleagues during the holidays!

- An interesting array of archives were processed during the past year. One collection of special interest to me was the T.S. Coile papers. Professor Coile's pioneering research on the relationship between soil characteristics and tree growth sparked my interest in production forestry as a graduate student at Duke University.
- Numerous scholars visited the Society's collections to conduct research. Mention in the Society's monthly newsletter *Timeline* of Amy Hay's research of citizen protests against the use of Agent Orange herbicides in the 1970s and 1980s attracted my attention. The Environmental Protection Agency prohibited the use of such herbicides for a number of forestry applications, including controlling hardwood competition in pine plantations. Thus, forest managers attempted to quickly develop alternative silvicultural prescriptions. As an intern at Westvaco in 1979 armed with just a chainsaw, I participated in a losing battle against the hardwoods. This reinforced to me the importance of the regulatory environment in the practice of forestry.

Given the importance of having well-designed space for fulfilling the mission and work of the Forest History Society, the board has recently expended significant effort in planning for a new facility to meet the needs of its members and the growing need for historical context in natural resource decisions. Good progress has been made on this strategic objective, and in April 2015, FHS purchased 8.6 wooded acres from Duke University as the future site for the Society's home and headquarters. This site offers an attractive, natural setting, conveniently accessible to highways, an airport, lodging, and area universities. As announcements are made this coming year, we hope you will join with us in supporting this far-reaching project, which is destined to be a point of pride for the forestry and conservation community.

The Forest History Society is dedicated to preserving and communicating forest and conservation history in North America and worldwide. We greatly appreciate your support and participation. President Steven Anderson and I look forward to hearing your comments and suggestions, and indeed working with you to determine how we can best fulfill our important mission and maintain free access to the Society's rich resources. □

TREASURER'S REPORT

The Forest History Society continues its mission to preserve and help people use the documents of forest and conservation history with professional dedication and effectiveness. The board and staff of the Society have worked hard to maintain the accomplishment of our mission during fiscal year July 1, 2014, through June 30, 2015.

Net assets at June 30, 2015, increased to \$9,120,833 from \$8,544,271 for the previous year's end. This is an increase of \$576,562,

generally attributable to an increase in the value of cash (including reduction in accounts payable) and current and long-term promises to give. Cash and cash equivalents increased to \$318,225 from the prior year's balance of \$237,952, an increase of \$80,273. The society also purchased a site for future development of its office and archival facility. During the fiscal year, the board's investment strategy was continued at 70 percent equities and 30 percent fixed income and real estate investments. The Society's investment advisor is Bernstein Global Wealth Management.

For the year ended June 30, 2015, the Society's auditors, Koonce, Wooten & Haywood, LLP, expressed an unqualified opinion on the financial statements which they stated "present fairly, in all material respects, the financial position of the Forest History Society in accordance with accounting principles generally accepted in the United States of America." The complete financial statements, along with our federal Form 990, are available for review in the offices of the FHS by appointment during normal business hours.

Since its fiscal year ended, the Society's financial position has remained generally consistent with that at June 30, 2015, except for the increases in promises to give related to the campaign for its future facility construction and acquisition. On August 1, 2014,

the Society returned to its offices after restoration from a previously reported fire. The restoration of the office facility is complete and most of the costs have been covered by insurance.

The board is focusing, among other matters, on plans to secure additional facilities to accommodate additional collections and service, on growing the membership and donor base of the Society as well as creating improvements to availability and accessibility of the Society's rich archival collections. The continued success of the annual fund and other fundraising efforts has strengthened our ability to focus on our core missions with due attention to emerging priorities. As a unique organization in the forest and conservation community, we are strategically positioned for success and a bright future of contributions to FHS members and societal concerns. □



Henry I. Barclay

FOREST HISTORY SOCIETY, INC.

Statement of Financial Position ■ June 30, 2015 (with comparative totals from 2014)

Assets	June 30, 2015	June 30, 2014
CURRENT ASSETS		
Cash	\$ 318,225	\$ 237,952
Accounts receivable	120,365	110,499
Pledges receivable	98,326	5,500
Inventory	21,513	24,783
Prepaid expense and deposits	31,815	37,382
Total current assets	590,244	416,116
INVESTMENTS	8,181,367	8,183,961
PLEDGES RECEIVABLE DUE AFTER ONE YEAR	291,856	
LAND, BUILDING & EQUIPMENT, NET OF DEPRECIATION	506,372	92,553
TOTAL ASSETS	\$ 9,569,839	\$ 8,692,630
Liabilities & Net Assets		
CURRENT LIABILITIES		
Accounts payable	\$ 18,509	\$ 107,298
Accrued expense and withholding	43,747	41,061
Total current liabilities	62,256	148,359
LONG-TERM LIABILITIES		
Line of credit	386,750	
Total liabilities	449,006	148,359
NET ASSETS		
Unrestricted		
Undesignated	156,086	78,173
Designated—operations	363,857	268,012
Endowment earnings (losses)	(2,570)	(1,494)
Building and equipment	535,702	102,551
Total unrestricted	1,053,075	447,242
Temporarily restricted		
Operations	14,234	45,703
Endowment earnings	1,659,701	1,659,003
Total temporarily restricted	1,673,935	1,704,706
Permanently restricted—endowment		
Total net assets	9,120,833	8,544,271
TOTAL LIABILITIES & NET ASSETS	\$ 9,569,839	\$ 8,692,630

Contributions and Project Sponsors

Thank you for generously supporting the Forest History Society!

THIS LIST INCLUDES GIFTS FROM JULY 2014 THROUGH JUNE 2015

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 For the complete list of all project spon-
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The Forest History Society strives to recognize our supporters accurately. Please contact Barbara Cushing at (919) 682-9319 with any questions, errors, or omissions. Thank you.

Welcome New Forest History Society Members

*We are delighted to welcome these new members
during fiscal years 2014 and 2015.*

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Gifts to the Forest History Society Library

July 1, 2014, to June 30, 2015

Bailey, Robert G.: Bailey, Robert G. "In Harmony with Nature: A Pioneer Conservationist's Bungalow Home." *American Bungalow* Number 83 (Fall 2014): 76–89.

Baker, Robert D.: Ca. 50 pages of photocopies of letters to Frederic W. Grover congratulating him upon his retirement from the U.S. Forest Service in 1969.

Consoletti, Bill: Porter, Earl and William Consoletti. *How Forestry Came to the Southeast: The Role of the Society of American Foresters*. [s.l.]: Southeastern Society of American Foresters, 2014.

Darling, O. H. "Doogie": Darling, O. H. "Doogie." *A History of the Cremer Lumber Company*, Crossett, Arkansas.

Gerhardt, David W.: 1] 13 oversize pasteboard pages from a ca. 1940 publication by West Virginia Pulp & Paper Company demonstrating forest management practices on company-owned land. Most double-sided pages (approx. 13" x 16") contain a black and white photographic print (approx. 10.5" x 13") and a brief caption. 3 pages contain instructional pages on a particular topic such as "Timber Production" with a list of sub-topics. No geographic locations given. 2 pages are duplicates. 2] 2 (8" x 10") color prints and 1 color negative of the Forest Research Center of WestVaco Corporation at Summerville, South Carolina. No date.

Fety, Lauren: 2 cartons of personal papers from Fety's grandfather, Rodney O. Fety, who was a forester for the Bureau of Land Management (BLM) in Oregon. They date mostly from the 1960s–1980s.

Fisher, Sean M.: "Preliminary Inventory of Manuscript Material Dealing with the History of the Forest Products Industry." St. Paul, MN: Forest Products History Foundation, c. 1947

Hammond, Lorne: Griffin, Robert and Lorne Hammond. *Stewards of the People's Forest: A Short History of the British Columbia Forest Service*. Victoria: Royal British Columbia Museum, 2014.

Kenops, Darrel L.: *Smokey Bear through 70 Years: Fire Prevention Memories by U.S. Forest Service Retirees*. N.p.: National Association of Forest Service Retirees, 2014.

Lansing, William A.: Lansing, William A. *Camps and Calluses: The Civilian Conservation Corps in Southwestern Oregon*. Eugene, OR: Monroe Press, 2005.

Leavell, Chuck: Leavell, Chuck; Welch, Mary. *Forever Green: The History and Hope of the American Forest*. Macon, GA: Distributed by Mercer University Press for Evergreen Arts, 2001. 2nd ed. 2003. Signed by author.

Milliken, Roger Jr.: *Forest for the Trees: A History of the Baskahegan Company*, 2nd ed., 2013.

Nelson, Sharlene: 1] *Principles of Silviculture*, 1950. American Forestry Series. 2] *Fifty Years of Forestry in the USA*. Winters, Robert K., 1950. 3] *The California Investment: A History of the Diamond Match Company in California*. Hutchinson, W.W., 1957. 4] *A Primer of Forestry: Part II*. Pinchot, Gifford. 5] *Glory Days of Logging: Action in the Big Woods*. Andrews, Ralph W., 1956.

Oftedahl, Laura.: Oftedahl, Laura, ed. *A Century of Cal Forestry, 1914–2014*. Berkeley: University of California, 2014.

Peterson, Gail: 1] 6 issues of "The Elders: Ordinary Lives, Uncommon Times." Published as sample of papers produced by Champion International Corporation, 1988. 2] Set of 12 "Great

Covers from Champion" coasters made to show designs of European manhole covers on Champion cover paper stock. 1986.

Ricketts, Steve: 1 DVD of scanned photos, negatives, documents, and publications from the Olympic National Forest created by Steve Ricketts after his retirement.

Soemo, Joel: 16 photos of the Huss Lumber Company; black & white 8x10s.

Stangenberger, Alan G.: "The Use of Prisoners of War in Logging, Pulpwood, and Lumber Industries." Washington, D.C.: U.S. Forest Service. Timber Production War Project, 1944.

Taylor, Thad: 1 DVD – "The Pennsylvania Forest: History with Jim Nelson." An interview with retired State Forester James Nelson regarding the changes he has seen to Pennsylvania's forests during his long career.

Tepljakov, Victor K.: Tepljakov, Victor K. *A History of IUFRO Congresses and Russia*. Moscow: Moscow State Forest University, 2014. Two volumes. Text in Russian.

Texas Forestry Association: Billings, Ronald R. *A Century of Forestry, 1914–2014*. Lufkin, TX: Texas Forestry Association, 2014.

Tweedie, Jim: Tweedie, Jim. *The Long-Bell Story*. Lee's Summit, MO: R.A. Long Historical Society.

Tombaugh, Larry: 1 carton materials gathered by Tombaugh while participating in the National Association of Professional Forestry Schools and Colleges (NAPFSC), later renamed National Association of University Forest Resource Programs (NAUFRP), mostly 1980s and 1990s. Primary topic is distribution of McIntire-Stennis funds to university forestry programs.

Tyler, Ron: Tyler, Glenn E. *Sakagit Memories: Memories of Working for the U.S. Forest Service in the Upper Skagit River District of the Mount Baker National Forest in Washington State, 1928–1940*. [Enumclaw, WA: Privately published, 2014].

Wadsworth, Frank H.: 2 copies of Wadsworth, Frank. *A Forestry Assignment to Puerto Rico: Forestry Memoirs of Frank Wadsworth*. San Juan: Impresos Immanueli, Inc., 2014.

Wallinger, R. Scott: 1] Wahlenberg, W. G., ed. *A Guide to Loblolly and Slash Pine Plantation Management in Southeastern USA*. Macon, GA: Georgia Forest Research Council, 1965. 2] Hardy, Shirley. *Forestry and Its Career Opportunities*. New York: McGraw-Hill, 1952. 3] Folder: Family Market Pilot Project 4] Folder: IFIR (International Forest Industry Roundtable). 5] *Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals, and Ecosystems*, 1995. 6] Earth Summit '92. 7] Howell, Michael. *Historical Trends of Timber Product Output in the Southeast*, 1994. 8] Four publications on South Carolina forests. 9] *Science and Endangered Species Preservation: Rethinking the Environmental Policy Process*, 1995. 10] *Forest Statistics of the United States*, 1987. 11] National Research Council. *National Capacity in Forestry Research*, 2002. 12] Pinchot Institute for Conservation. *The Evolution of Forestry Education in the United States: Adapting to the Changing Demands of Professional Forestry*, 2000. 13] "The Role of Planted Forests in Sustainable Forest Management: Report of the UNFF Intersessional Experts Meeting," Wellington, New Zealand, 2003. 14] *National Report on Sustainable Forests – 2003*. 15] State of the World's Forests 2001. 16] *State of the World's Forests 2005* (Part 1 only). 17] "World

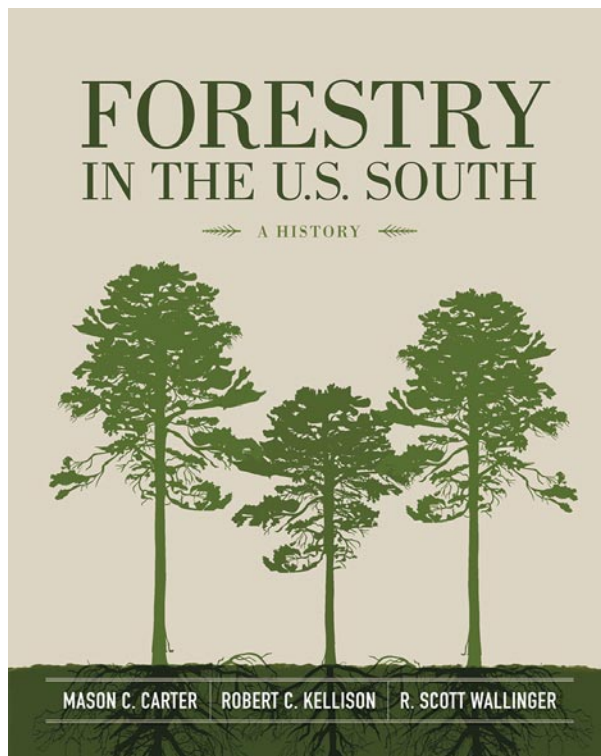
Bank WWF Alliance for Forest Conservation & Sustainable Use, Annual Report 2000.” 18] 2 issues of *Evergreen* magazine 19] ca. 25 papers, speeches, press releases, etc. on a variety of topics. 20] Card with 5 Westvaco employee award pins attached. 21] Capital Markets and Sustainable Forestry, 1999.

Weyerhaeuser Archives: Bound volumes of *Weyerhaeuser Magazine*, *Weyerhaeuser News*, *Weyerhaeuser Today*, and *Weyerhaeuser World*. [*Weyerhaeuser Magazine*, Vols. 1–21; *Weyerhaeuser News*, Vols. 1–70 (1941–1969); *Weyerhaeuser Today*, 1983–1996; *Weyerhaeuser World*, 1969–1972]

Wilson, Richa: 1] *National Forest Log Scaling Handbook*, effective date December 31, 2002, approved by Jack G. Troyer. 2] U.S. Dept.

of Agriculture Forest Service National Forest Scale Book, Form 651 (Revised Feb. 1957). 3] *User's Guide for Cubic Measurement*, Thomas A. Snellgrove, Thomas D. Fahey, and Ben S. Bryant, technical editors. 4] *Ski the Intermountain Region*, Forest Service, U.S. Department of Agriculture, Ogden, Utah. 5] Uinta National Forest Utah—Salt Lake and Uinta Mountains, 1975. U.S. Department of Agriculture Forest Service map. 6] Salt Lake Meridian map, 1986. 7] National Wild & Scenic Rivers System brochure developed by River Management Society. 8] National Wild and Scenic Rivers System, January 2000 map. 9] “Bury My Soul near Krassel Hole—A History of the Krassel District, Payette National Forest,” unpublished manuscript by Tom Ortman, 1975. □

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Forestry in the U.S. South

By Mason C. Carter, Robert C. Kellison & R. Scott Wallinger

During the second half of the twentieth century, the forest industry removed more than 300 billion cubic feet of timber from southern forests. Yet at the same time, partnerships between public and private entities improved the inventory, health, and productivity of this vast and resilient resource. A comprehensive and multi-layered history, *Forestry in the U.S. South: A History* explores the remarkable commercial and environmental gains made possible through the collaboration of industry, universities, and other agencies.

This authoritative assessment starts by discussing the motives and practices of early lumber companies, which aggressively began to harvest the virgin pine of the South at the turn of the twentieth century, with production peaking by 1909. The rapidly declining supply of old-growth southern pine triggered a threat of timber famine and inspired efforts to regulate the industry. By mid-century, however, industrial forestry had its own profit incentive to replenish harvested timber. This set the stage for a unique alliance between public and private sectors, which conducted joint research on tree improvement, fertilization, and other practices germane to sustainable forest management.

By the close of the 1990s, concerns about an inadequate timber supply gave way to questions about how to utilize millions of acres of pine plantations approaching maturity. No longer concerned with the future supply of raw material and facing mounting global competition the U.S. pulp and paper industry consolidated, restructured, and sold nearly 20 million acres of forests to Timber Investment Management Organizations (TIMOs) and Real Estate Investment Trusts (REITs), resulting in an entirely new dynamic for private forestry in the South.

Incomparable in scope, *Forestry in the U.S. South* spotlights the people and organizations responsible for empowering individual forest owners across the region, tripling the production of pine stands and bolstering the livelihoods of thousands of men and women across the South.

AWARDS AND FELLOWSHIPS

The Forest History Society awards program enables the Society to recognize research and writing in forest and conservation history and to stimulate further research into our understanding of the relationships between people and forests. High standards for selection reflect equally upon the recipient and the Society. The following is a list of awards for 2014–15.

LEOPOLD-HIDY AWARD

The Aldo Leopold–Ralph W. Hidy Award honors the best article published in the journal *Environmental History* during the preceding year. The award is presented jointly by the American Society for Environmental History and the Forest History Society. The 2015 recipient is **Faisal Husain**, a PhD candidate at Georgetown University, for his article, “In the Bellies of the Marshes: Water and Power in the Countryside of Ottoman Baghdad,” Vol. 19, no. 3 (October 2014): 638–64.

In this deeply researched study, Mr. Husain examines Ottoman attempts to dominate people by exerting power over nature. He takes us into the marshy world of the Khazil, a tribe that had long been a thorn in the Ottoman side. After failed efforts to bring the Khazil into the fold by traditional means, Ottoman authorities in Baghdad implemented extensive dam and canal projects aimed at draining the wetlands that gave the Khazil security and sustenance. What began as a military expedient, however, had longer-term political and religious repercussions; as Husain deftly shows, draining the marshes not only transformed them from places reflective of Khazil culture, it opened the way for the region to become deeply and strongly associated with Shi’a Islam, a greater challenge to the Ottomans in later years.

One editorial board member called Husain’s article “noteworthy” because “it shows not only how imperial powers—the Ottomans in this case—attempted to use the landscape as a means of warfare, but how this strategy led to an unexpected yet transcendent consequence—namely, the rise of Shi’ism in Iraq. [He uses] environmental history to link the local with the

global in a way that attends to geopolitics as well as to village-level uses of the land.” Other judges cited his thorough research, temporal sweep, innovative and convincing arguments, and remarkable fluidity in writing.

THEODORE C. BLEGEN AWARD

The Theodore C. Blegen Award recognizes the best scholarly article in the field of forest and conservation history that is not published in *Environmental History*. This year the award goes to **Jack Reid** for his article, “The ‘Great Migration’ in Northern Arizona: Southern Blacks Move to Flagstaff, 1940–1960,” published in the winter 2014 issue of *The Journal of Arizona History*, Vol. 55, No. 4: 469–98.

Based on the Northern Arizona’s library’s oral history collection, this article captures the mostly untold story of the forestry-related African American migration out of the south in the 1940s and 1950s. With work experience in the lumber industry, the first migrants set out on a journey to Arizona in hopes of better pay and less discrimination. Due to declining lumber quality and quantity in the south, more would follow. Details on the work opportunities and social consequences are well documented and shed light on this minority group within the forestry workforce.

JOHN M. COLLIER AWARD FOR FOREST HISTORY JOURNALISM

The John M. Collier Award encourages excellence in journalism that treats forest and conservation history. This year’s prize goes to **Michael Gaige** for his article “Wolf Trees: Elders of the Eastern Forest” published in *American Forests*, Fall 2014 (120:3). He is a freelance conservation biologist and educator based in Saratoga Lake, N.Y.

The article tells the story of relict “wolf trees,” a term used by early twentieth-century foresters to describe undesirable old shade trees that spread like wolves and “preyed” upon forest resources needed by more marketable species. It took decades before foresters recognized the ecological value of the giant trees. These trees have endured the rise and fall of New England’s

agriculture, and now provide important ecological benefits to many other species. Judges found this essay to be well presented with broad applicability in forestry and land conservation in an artful combination of ecological, cultural, and historical perspectives. One evaluation commented on the presentation of the first-person viewpoint giving the reader a feeling of being in the woods and found the article to be worth a second read. Judges found this article to possess broad applicability in forestry and land conservation in an artful combination of ecological, cultural, and historical perspectives.

CHARLES A. WEYERHAEUSER BOOK AWARD

The Charles A. Weyerhaeuser Award rewards superior scholarship in forest and conservation history. The 2015 winner is **Thomas Miller Klubock** for *La Frontera: Forests and Ecological Conflict in Chile’s Frontier Territory* (Durham: Duke University Press, 2014).

This book offers a century-long, bottom-up view of forest and conservation history in the southern Andes that balances the views of state foresters and planners with the voices of indigenous communities and rural forest workers as the Chilean landscape transformed from one of the largest native temperate forests in the world into plantation after monocultural plantation of Monterey cypress. Comments on this authorship included: “far and away a most ambitious, scholarly, and sophisticated book and although not the easiest read, a rich work based on a tremendous amount of original research”; “a benchmark in Latin American environmental history, and model for integrating forest history with social history”; “after twelve years of research, including oral histories and archives that had never been used before, he infuses his text with rich examples and vibrant stories, and ably avoids tropes that glorify peasants or triumphantly celebrate conservationist policies”; “despite being packed with content, his writing remains graceful and relatively accessible”; and finally, “it will have a well-deserved place in a distinguished tradition of scholarship.”

F. K. WEYERHAEUSER FOREST HISTORY FELLOWSHIP

The F. K. Weyerhaeuser Forest History Fellowship is awarded annually to a student at the FHS university affiliate, Duke University, whose research is historical in nature and related to forestry, land use, or the environment. The 2015 fellowship was awarded to **Tom Cinq-Mars**, a PhD candidate from Duke's Department of History, for his research titled "'Friendship Like Steel Welds': The *Druzhba* Oil Pipeline and the (Un)Making of the Socialist World, 1948–1994."

Cinq-Mars's research explores the construction of the longest oil pipeline in the world (roughly 5,500 kilometers), and its effects on the formation of socialist political economies. He has confirmed through archival sources that the pipeline, still in use today, was built through 450 kilometers of undeveloped forestland in the USSR alone. His research into the conceptualization, planning, and construction of *Druzhba* reconfigures the history of the Cold War, viewing that competition between political and economic systems from the perspective of natural resource management, particularly petroleum management. He argues that Soviet industry leaders did indeed craft environmentalist policies that significantly circumscribed petroleum production and contends that they did so in part because of interactions with North American Petroleum companies. He intends to demonstrate that the forest histories of two disparate landmasses, North America and Eurasia, are intrinsically interconnected and aims to bring natural resource management to fore among myriad scholars of the Cold War, a truly interdisciplinary cohort, and contribute to ongoing discussions of environmental sustainability.

WALTER S. ROSENBERRY FELLOWSHIP IN FOREST AND CONSERVATION HISTORY

Walter S. Rosenberry (1931–2005), a long-time supporter and Forest History Society Board member, provided the Society's first endowment in support of its awards program. The fellowship provides a stipend to support the doctoral research of a graduate student attending a university in North America whose research contributes to forest and conservation history. The recipient is selected on the basis of merit: proposals are judged in terms of overall significance, achievability, quality of pres-

entation, academic record, and relevance to forest history. Additionally, the winner will also be considered for up to \$1,000 in travel expenses toward attendance at a professional conference where they have had a paper accepted for presentation.

The 2015 recipient is **Owen James Hyman**, a PhD candidate from Mississippi State University. His dissertation project entitled "Naturalized Race, Industrialized Forests: An Environmental History of Jim Crow in the Forest Industries of Louisiana and Mississippi, 1880–1960" will examine how ideas about the landscape shaped ideas about race and labor in the South after Reconstruction. The panel of judges considered his proposal an important and compelling study in both southern history and environmental history. Mr. Hyman is thinking about race in ways that few southern environmental historians have to date.

FHS FELLOW AWARD

The Forest History Society bestows the honorary title of Fellow of the Forest History Society on persons who have provided many years of outstanding leadership and service to the Society or many years of outstanding sustained contributions to the research, writing, or teaching of forest, conservation, or environmental history. This honor is the Society's highest award and is only given occasionally. In 2015, **Cheryl P. Oakes**, librarian of the Forest History Society, was awarded for her long and outstanding service to the Society and for her contributions to the field of forest and conservation history upon her retirement after 25 years at the Society. We at FHS congratulate Cheryl and wish her well on her retirement.

ALFRED BELL TRAVEL GRANTS AND VISITORS

Joe Giacomelli, a PhD candidate in history at Cornell University, is studying how scientists and others understood climate during the nineteenth century. He used a Bell Travel Grant to look at the training of foresters, how they integrated fields such as hydrology and meteorology into their work, afforestation as a means of modifying climate, and how predominant viewpoints about climate changed in the early twentieth century.

Nicole Cox, a PhD candidate in history at the University of Florida, is writing a dissertation on the history of the wood-preservation industry entitled "Toxic Treatment: The Wood-Preservation Industry and the

Making of Superfund Sites." She is taking the long view of the industrial processes that created Superfund sites and is especially interested in creosote and experiments on its use by federal agencies. The Bell Travel Grant enabled her to utilize early newspaper clipping files, and she was pleased to discover that FHS has quite a number of historic photographs related to wood preservation processes.

Amy Hay looked at Forest Service environmental impact statements (EISs) from the Pacific Northwest and combed through the extensive holdings of the Western Timber Association and U.S. Forest Service History Reference collections. Dr. Hay teaches American history at the University of Texas–Rio Grande Valley.

Ella Mueller, a research associate at the Chair of Modern History at Freiburg University in Germany, examined the archival records of the Western Timber Association and oral history transcripts from interviews with U.S. Forest Service leaders in the 1990s. Her doctoral dissertation is on the history of anti-environmentalism in the United States since the 1970s. She is focusing on the question of why people opposed the adoption of environmental protection measures, in what forms protests manifested, and to what extent they influenced political decisions.

Swen Steinberg, a German historian working on a post-doctorate fellowship through the German Research Foundation at UCLA, is researching transnational knowledge transfers and transfer practices in forestry and mining science between Germany and the United States in the nineteenth and twentieth centuries. For the forestry portion, he examined several sets of papers in the Alvin J. Huss Archives: first in the papers of persons, including Thomas Gill, who were in contact with German scientists such as Egon Glesinger, Franz Heske, and Adalbert Ebner or with scientists with connections to Germany such as Ward Shepard and Carl A. Schenck. He also worked in the papers of the American Forestry Association and other organizations. Additionally, he looked at materials concerning forestry trips to Germany made by Americans in the 1930s through the Oberlander Trust, including the Clarence Forsling papers. □

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