



OXFORD JOURNALS
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Source: *Forest & Conservation History*, Jan., 1994, Vol. 38, No. 1 (Jan., 1994), pp. 7-15

Published by: Oxford University Press on behalf of Forest History Society and American Society for Environmental History

Stable URL: <https://www.jstor.org/stable/3983582>

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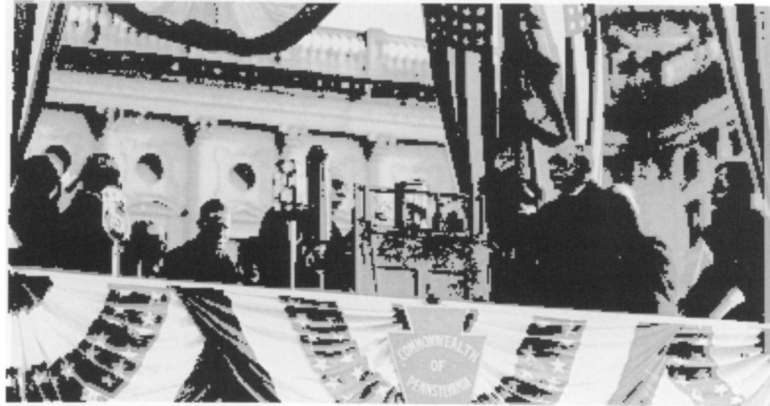
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Old Growth



A Reconstruction of Gifford Pinchot's Training of a Forester, 1914–37

Char Miller

In 1897 while serving as a special forestry agent for the Department of the Interior, a young Gifford Pinchot (he was thirty-one years old at the time) travelled to the Pacific Northwest. His task was to inspect the newly created federal forest reserves that President Cleveland established before departing from office that March, to offer recommendations about their current boundaries, and to report on their future management. To this list he added a fourth goal: to persuade the region's citizenry that the forest reserves, against which many had protested for fear that their natural resources would be forever locked up, were a political and economic benefit. His was going to be a hard sell.¹

But sell he did, arguing that his philosophy of conservation emphasized "wise use" of resources, not their complete preservation. To plead his case, Pinchot carried his message first to that emerging locus of power in late-nineteenth-century America: the newspapers. At every stop on his three-month tour of the northwest, Pinchot made certain to meet with leading newspaper owners and editors to persuade them of the need for federal regulation of natural resources, hoping thereby to shift their editorial opposition. In Spokane and Seattle,

for instance, he secured lengthy interviews with publishers, defusing their sharp denunciations of the reserves. He was "greatly pleased" by his action, he wrote his mother after meeting with the editorial board of the Spokane *Spokesman-Review*, "because this is one of the most influential of the western papers, and it has hitherto not been in favor of the reserves." Revising the newspapers' perspective, in short, was the most effective means to reshape public opinion.²

Early in his career Pinchot recognized that politics *was* persuasion, and that airing his ideas before the public was critical to introducing forestry principles to a skeptical nation. His insight into the manner in which "public opinion is made or directed" would prove invaluable "in the work of the Forest Service later on," as he acknowledged in his autobiography, *Breaking New Ground*. Indeed, at the conclusion of his service as chief of the United States Forest Service in 1910 he had amassed a file of more than 750,000 names of individuals and organizations to whom he regularly sent mass mailings to press his case on conservation, federal regulations, or pending legislation. He had become, as one historian has argued, the "Press Agent for Forestry."³

Getting the word out was not simply a facet of successful public relations. Pinchot understood that this was also a means of writing history; his version of events, if repeated enough and cast as broadly as possible, would become *the* version. Having set the agenda for the present, he could influence the agenda for the future, consequently structuring how succeeding generations would come to know the past. As he asserted in his autobiography: "[to] many parts of the story of Forestry in America from 1885 to 1910, I am the only living witness," and that is why "you must take my word or leave it." To a large degree his assertion has held, and he has remained central to any discussion of the introduction, development, and continued relevance of forestry and conservation in the United States. Gifford Pinchot changed the course of history.⁴

Article title photo shows the inauguration of Gifford Pinchot as governor of Pennsylvania, either in 1923 or 1931. Photos accompanying this article are from the USDA Forest Service, Grey Towers National Historic Landmark.

But he was also changed by the very social forces he expected to control, a change as much philosophical and political as it was scientific. Pinchot is best known, for example, for his advocacy of what some historians call “wise use” or “utilitarian” conservation, a vision that upheld federal government regulation of the exploitation of natural resources but assumed that publicly owned resources such as water, coal, and lumber would be developed, but developed wisely and with care. This was the message he carried to the Pacific Northwest in 1897, language that would later guide his actions in the U.S. Forest Service. Yet by the 1930s Pinchot began to modify this utilitarian emphasis, infusing his conservation philosophy with a more environmentally sensitive discourse that included the concept of forest ecology. So while he continued to affirm the utilitarian notion that trees were a crop, he could also proclaim the need to preserve wilderness, and further to tout the spiritual importance of maintaining a well-wooded land.⁵

Clues as to how and why this transition from utilitarianism to ecological conservation occurred emerge in an unlikely source: *The Training of a Forester*, a popular manual Pinchot wrote explaining the defining characteristics of the profession he had done so much to introduce to American culture. It is an unlikely source because the book contains very little direct autobiographical material from which one might gain insight to the author’s evolving thoughts. Moreover, the preface, aimed at young men who were considering their “life’s work,” adopts a tone of parental omniscience and certitude that positively discourages notions of vocational uncertainty. “I urge no man to make forestry his profession,” Pinchot warned, “but rather to keep away from it if he can. In forestry a man is either altogether at home or very much out of place,” language not only designed to exclude and rebuff but that affirms there had been, and would always be, but one kind of “place,” one form of experience, possible in the profession. Who better to define that experience but the man who helped establish modern American forestry in the last decades of the nineteenth century?⁶

There was no one, of course, a response reinforced by the abstract, even technical quality of the text. A quick glance at the table of contents for the 1937 edition, for instance, suggests that the book offers little more than an evaluation of such elementary concerns as “What is a Forest?,” “What is Forestry?,” or “What Must a Forester Know?” These are all important questions, but hardly designed to provoke rich reflections on Pinchot’s ability to re-imagine central tenets of forestry. Those reflections come in the answers he supplied to these and other queries, or more to the point in the *changes* in his answers over time. For *Training of a Forester* underwent a marked revision between when it was first published in 1914 and 1937, when the final (fourth) edition appeared. Read carefully, these different editions, when linked to the commentary about them in Pinchot’s correspondence and diaries, reveal significant shifts in his thinking about forests and forestry; ecological insights replaced utilitarian methodologies. These alterations were themselves largely inspired by his response to contemporary debates reevaluating the significance and focus of conservation, a responsiveness that in turn challenges one of Pinchot’s own conceits: although he liked to think of himself as someone who broke new ground, he was a man of his time.⁷

Progressive Forestry

How thoroughly (and temporally) grounded Pinchot was emerges in the first version of *The Training of a Forester*, which appeared in the midst of the Progressive Era and depended heavily upon that era’s ethos. Built on interlocking notions of efficiency, order, and rationality, and dedicated to the power of scientific analysis to resolve social problems, the Progressive ethos assumed that humanity had the capacity to remake, and thus to better, itself and the environment. These ideas were not indigenous to the United States but were products of a decades-long and fertile interchange between Europe—especially Germany and Great Britain—and North America. In his own small way, Gifford Pinchot

contributed to this intellectual transfusion when he studied in France and Germany in the 1890s, later transferring some of the principles of European forestry into the United States Forest Service. Of those principles, perhaps the most significant appeared in the dedication of *The Training of a Forester* to Pinchot’s “Friend and Fellow worker” Overton W. Price, who had also trained abroad and to whom was “Due, More Than To Any Other Man, The High Efficiency Of The United States Forest Service.”

High efficiency: no greater praise could be lavished on a man in the Progressive Era and no greater idea frames the central arguments of *The Training of a Forester*.⁸ This stress on efficiency is particularly evident where Pinchot lays out his definitions of forests and forestry. Not surprisingly the definitions are interwoven but the terms are not exactly synonymous, for when on the book’s first page he poses the question “What is a Forest?” he answers by asking “First, What is Forestry?” This priority is crucial to understanding Pinchot’s perspectives. Forestry, he observed, is “the art of handling the forest so that it will render whatever service is required of it without being impoverished or destroyed.” Those services are many, including producing commodities such as “saw logs, telegraph poles, barrel hoops...or turpentine” or the maintenance of environments that “support cattle or sheep.” Forests had other environmental purposes too, from the regulation of stream flow to the reduction of erosion to the advance of transportation. Forestry was defined by human uses and values. Indeed, nowhere did Pinchot acknowledge that a forest might have value unto itself, or at least hold a value different from those humanity then could conceive. Instead he trumpeted the ways in which the forest produced goods “for the service of man” and in the most efficient manner contributed to what he called the “house-keeping of the nation.” Through forestry was the forest domesticated.⁹

This perspective shaped how foresters were taught to conceive of forests. In a lengthy section of *Training of a Forester*, for example, Pinchot dealt with curricular concerns, addressing

the structure of forestry education through which students would be introduced to the professional nomenclature. Knowledge of nomenclature was critical, for the “trained forester must know the forest as a doctor knows the human machine” and be able to “distinguish the different trees of which the forest is composed, for that is like learning to read.” A forester’s grammar lessons perforce involved a series of courses in dendrology, forest physiography, and forest mensuration, each designed to introduce students to different ways of assessing and measuring a forest’s value. The “backbone” of a forester’s education, however, was “[s]ilvics, the knowledge of the relation of trees to light, heat, and moisture, to the soil, and to each other.” These facts helped explain “the composition, character and form of the forest,” and would enable foresters to determine “the success or failure of tree species in competition with one another,” the development of an individual tree in “height, diam-

eter and volume,” as well as its “form and length of life” and reproductive methods. Silvics unlocked a forest’s life cycle.¹⁰

Silvics was also the key to forest management, which Pinchot observed as being “closely related to questions of forest finance.” No forester’s studies would be complete without work in forest economics, which explored “the productive value of forests to their owners,” ranging from the relationship between forests and climate to the impact of forest fires and other “wastes from which the forests suffer” to statistics on the nation’s wood consumption and the consequent needs forests “must be fitted to supply.” In classifying the “economic woods of the United States” and then determining the most efficient means by which to harvest them, foresters placed scientific analysis in the service of resource exploitation. Foresters were useful.¹¹

In tying forestry’s legitimacy to its social utility, Pinchot acted like most other Progressive Era reformers who sought to establish the many new professions that blossomed throughout the late-nineteenth and early-twentieth centuries. That is why he insisted since forests were a “national necessity” so were foresters, for without them the United States would end up like “Palestine, Greece, Northern Africa and Central India,” now-stunted regions that “offer in themselves the most impressive object lessons of the effect upon national prosperity and national character of the neglect of the forest....” What would allow Americans, whose cultural identity was derived from and dependent upon nature, to escape a similar fate? Scientific forestry. Its proponents, after all, were trained to break down a forest’s constituent elements and then rebuild the wooded landscape, all with an eye for increasing the forest’s economic contributions to the commonweal.¹²

That the forest could be studied and thus known, its problems analyzed and presumably fixed, was precisely the tack urban reformers such as Jane Addams and Jacob Riis took when they assessed immigrant life in the burgeoning metropolises of Chicago or New York. Pinchot was well aware of this link and surely it is no coinci-

dence that he employed an urban metaphor to explain his profession’s perspectives: “Just as in New York City, for example, the French, the Germans, the Italians, the Hungarians, and the Chinese each have quarters of their own, and in those quarters live in accordance with habits that distinguish each from all others,” so too did trees take root in particular localities and “live in accordance with definite racial habits” every bit as precise as their human counterparts. To know those “peculiar characteristics” was the critical, first step toward improving them.¹³

The Training of a Forester was itself a first step. Since the 1890s Pinchot had been searching for a way to publish a primer on forestry that was both a technical handbook and a missionary tract, one that informed as it proselytized. Mixed with Pinchot’s insights about the nature of his craft, therefore, were pointed admonitions about the dire political and social consequences awaiting Americans if they did not embrace the perspectives of professional forestry. The book’s concerns, for instance, could be implemented on the national level through the U.S. Forest Service, but that was not true for the millions of forested acres owned by individual states, most of which had little legislation regarding forestry. The book thus urged state foresters to create “a right public sentiment” regarding their work and “prepare or endeavor to secure the passage of good State forest laws” while battling “against the enactment of bad laws,” particularly the pervasive forest taxation measures that force “the destructive cutting of timber....” State forestry, unlike its national counterpart, was at a rudimentary stage of development.¹⁴

Private forestry was in even worse shape. “The concentration of timberland ownership in the United States,” Pinchot asserted, “has put a few men in control of vast areas of forest,” and profits drove lumber production for these monopolists. That is why “the practice of forestry by private owners, except for fire protection, has made but little progress in the United States,” frustrating the private forester who “must usually be willing to accept a



Top A summer celebration on the terrace at Grey Towers, Pinchot’s home in Milford, Pennsylvania, circa 1923.

Bottom A student at the Yale School of Forestry visits Grey Towers, circa 1915–19. Pinchot’s family, including his parents and brother, generously endowed and started the Yale School of Forestry in the early 1900s.

good many limitations on the technical side of his work.” That frustration could only be relieved, and privately owned lands better served, Pinchot proclaimed, when “forest destruction will be legally recognized as hostile to the public welfare, and when lumbermen will be compelled by law to handle their forests so as to insure [their] reproduction....” Such tough legal remedies were “neither new nor tyrannical” and had been successful in “democratic Switzerland,” but Pinchot suspected it might take a generation before similar measures would take hold in the American republic.¹⁵

Through it all, foresters—public and private—had to remember that they were public servants. “Because he deals with a forest, he has his hand upon the future welfare of his country.” This perspective influenced a forester’s professional work in the field as well as his sense of social obligation. No “[f]orester can safely allow himself to remain ignorant of the needs and purposes of his fellow citizens, or to be out of touch with the current questions of the day.” For Pinchot this established an important political equation: the “best citizen makes the best Forester, and no man can make a good Forester unless he is a good citizen also.”¹⁶

This credo, reinforced by Pinchot’s fervent declaration that foresters were “missionaries in a very real sense,” shaped the marketing strategy Pinchot and publisher J. W. Lippincott devised for *Training of a Forester*. In January 1914, shortly before the book’s publication, Pinchot wrote Lippincott that they needed “to talk over the matter of getting the book into the hands of the right people. A judicious campaign directed in the right quarters will, I feel confident, double the circulation the book might otherwise reach.” By this he meant the spread of the book’s arguments, not an increase in his royalties, and he thus put his mailing lists at the publisher’s disposal, suggested particular reviewers for the book, and convinced Lippincott to reduce the volume’s cost to \$1.00 so that it would be within the reach of a wide reading public. In the Progressive war of ideas, price was no object; only persuasion mattered.¹⁷

Visions & Revisions

Pinchot was himself persuaded that with the publication of *Training of a Forester* in 1914 professional forestry reached a new point in its development. “In the United States,” he declared, “forestry is passing out of the pioneer stage of agitation and education of public opinion, and into the permanent phase of the practice of the profession.” He did not supply the leadership for this second stage, however, and so the book’s appearance provides a convenient demarcation in his career as well. Beginning in 1914 Pinchot plunged into electoral politics, launching a bid for a seat in the U.S. Senate from Pennsylvania, a goal he pursued periodically through the 1930s but never captured. He was elected twice as governor of the Keystone State, however, once in the 1920s and again in the early 1930s. From that post he hoped to gain national attention, and never discouraged (and often fanned) rumors that he would run for the White House. Clearly the locus of his agitation had changed.¹⁸

Yet Pinchot never strayed too far from the politics of forestry. This was as true in 1910 when President Taft fired him as the nation’s chief forester while Pinchot still managed to hand-pick his successor, as it was until his death in 1946. For more than thirty years he inserted himself into forestry’s affairs, revamping Pennsylvania’s forest commission, publicly rebuking U.S. Forest Service chiefs in the 1920s who he felt were compromising the service’s integrity, and marshalling public opinion in opposition to Secretary Harold Ickes’s repeated attempts during the New Deal to transfer the Forest Service from the Department of Agriculture to the Department of the Interior. For Gifford Pinchot, forestry was a proprietary matter.¹⁹

That was not how he felt about *Training of a Forester*. When in 1916 Lippincott proposed a second edition, Pinchot had neither the time nor inclination to revise the original text. Although he read the new edition’s proofs in January 1917 and with close friend Herbert A. Smith, a U.S. Forest Service editor, made minor changes, especially in revising and updating

some data, the edition was essentially unaltered. The first edition had a long shelf life: it remained unrevised for the next fifteen years.²⁰

By 1933 there were few copies of the book left on shelves. That summer Lippincott editor J. Jefferson Jones wrote Pinchot that there were only fifty copies of the book in stock and the publisher proposed to issue a third edition. Lippincott hoped to cash in on the nation’s revived interest in forestry and conservation, which the Great Depression and Franklin Roosevelt’s New Deal had prompted. In “view of the present wide interest in reforestation,” Jones noted, “we believe it would be advisable and helpful...to revise [*Training of a Forester*] thoroughly and up-to-date before it is reprinted.” Noting that the last edition had appeared in 1917, Jones assumed that “much of interest and value could be added.” Jones wanted the revision quickly in order to take advantage of pending federal legislation concerning one of the president’s pet projects, the Civilian Conservation Corps or what Jones called the “reforestation camps.” Time was of the essence.²¹

Pinchot, who had a well-developed sense of timing, was acutely aware of Roosevelt’s interest in conservation and the prospects this might hold for the nation’s forests. After all, six months earlier the president-elect had asked Governor Pinchot to prepare a report on the status of America’s woods. With the aid of foresters Raphael Zon and Bob Marshall, Pinchot issued a tough and critical memorandum. Dominating their response was an insistence that the only way to resolve the massive problems of environmental despoliation that eroded the land and the quality of people’s lives was to lease, buy, or take through eminent domain millions of private timberland acreage. It would be in these forests that new jobs could be created replanting trees and building roads, bridges and dams, hiking trails and cabins. It would be a public investment with important political and social consequences. Of these consequences, the most radical emerged in Pinchot’s opposition to the revival of private forestry, which he sneeringly referred to as “industrial forestry,” the lumbering practices he

believed were responsible for many of the problems confronting rural, forested America. Nationalizing these lands, or a portion of them, and developing stiff regulations governing their use, would finally establish public forestry's dominance over the American lumber industry. This approach would solve society's escalating unemployment rates, too, providing meaningful work and a steady income for the forgotten man and woman. Best of all, or so the report declared, this was one federal investment that would rapidly pay for itself.²²

This report stands as an important breakpoint in Pinchot's conception of the purposes and goals of American forestry. It raised vital questions about who should control these woods and to what ends. During the Progressive Era Pinchot hoped that in time private forests and forestry would be regulated by federal laws, but he had never called for public ownership. Now he believed that public control was the only acceptable means to woodland rehabilitation and social justice. Moreover, protecting the land and the people who inhabited it had become such a pressing concern that even as he counseled Roosevelt to develop the Civilian Conservation Corps, and to make its middle name a fundamental component of its work, Pinchot inaugurated a similar effort in Pennsylvania. Forestry had become a driving wedge for socialism.²³

Despite Pinchot's intellectual reorientation and political activism during the early 1930s he was nonetheless caught off guard by Lippincott's renewed interest in *The Training of a Forester*. "To my great surprise," he wrote Herbert Smith in June 1933, "I have just had a request from the publishers to revise [the book] again." Pinchot knew that he did not have time to make the extensive necessary revisions: "it will be more of [a] job this time," he commented, "because the conditions have changed more." Agreeing about the nature and significance of those changes might also be difficult. "Probably there are things as to which you and I would disagree," he confirmed, knowing Smith held a more charitable image of the Forest Service and of the cutting practices

that private timberland interests employed, "but that could be worked out." He hoped that Smith might be able to "spare the time. If you could not can you suggest anybody else?"²⁴

Smith hesitated, refusing to commit himself to the project before rereading an earlier edition because "to my shame, I can recall nothing at all about it." When he did read it the news was not encouraging. It would be "pretty difficult" to revise, as so much needed to be rewritten. "Why not kill it instead and do a new one...to take its place?" That, of course, was exactly what Pinchot hoped to avoid when he asked Smith to be his ghostwriter. But Smith admitted he was too old for the work, something he had realized while rereading the text. For him the book was "a startling demonstration" not only of the transformation of forestry in the intervening years but of his own aging. "[W]ho but an old fellow would think of 20 years ago as though it were but yesterday and wonder that things are so far different than they were." Pinchot, who doubted that forestry had changed as much as it should have, and who by temperament and occupation was loath to succumb to nostalgic paeans to youthful accomplishments—at sixty-eight he was happily governing one of the nation's largest states—nonetheless conceded that "the book was written for pioneer conditions, many of which no longer exist....As you say, it certainly does mark the long road over which we have come."²⁵

The two would walk down that road one step farther. In early August Pinchot wrote to Jefferson Jones at Lippincott citing Smith's decision not to undertake the "extensive and tedious revisions as seems necessary" and apologized that "I cannot get the book in shape." The publisher regretted but understood the decision, noting that they would once again publish the unrevised text in expectation of receiving "most any day an order from the Reforestation camps—which may mean several hundred copies." Would it be harmful, the editor wondered, if the book were republished unrevised? Pinchot assured him that there would be "no harm...[in] continuing to sell *Training of a Forester* as

it now stands," but some minor revisions would be necessary. He then persuaded Smith to help update the facts and figures scattered throughout the text and even drafted "a new chapter containing some essential information about our forests"—largely focused on the increased size and extent of the National Forest system since 1917—before the volume once more appeared on the publisher's book list beginning in early fall 1933.

The third edition's reception was disappointing. It was not reviewed either in public or professional venues, and the expected sales to the Civilian Conservation Corps apparently never materialized. The disheartening response reflected in the January 1934 royalty statement to Pinchot showed that only fifty-six copies had been sold, netting the author \$14.96. This was just as well, for as Pinchot understood, the edition did not reflect alterations in his thinking about the social and political context in which foresters operated and did not contain his prescriptions for a profession he believed was badly in need of reform. A fourth and final edition would meet some, though not all, of these concerns.²⁶

Toward Ecology

It was far easier to appreciate that *Training of a Forester* needed updating than it was to find the time or energy to accomplish the revisions. In the mid-1930s Pinchot was entering the seventh decade of life, nearing the close of a second arduous term as governor of Pennsylvania, an industrial state battered hard by the Great Depression. He was contemplating running for a seat in the U.S. Senate or perhaps even a campaign for the presidency. On top of this work load and its accompanying stress he was also organizing massive files of correspondence so that he might write his memoirs—what he pungently called this "wretched autobiographical screed of mine"—a project that consumed a large portion of the next decade.²⁷

Pinchot's plate was full, yet not so full that he could not pile on another project. The man was never one to let four major endeavors get in the way of taking on a fifth or sixth. Beginning in summer 1936, squeezed between



The Pinchots provided forested lands in Milford and classroom space in the town itself for student use until the 1920s, when Yale secured quarters near New Haven. Here a student measures tree height with an early instrument, perhaps a clinometer.

extensive commitments as state executive and a rigorous schedule of speaking engagements for the faltering presidential campaign of Alf Landon, Pinchot contemplated how to revise *Training of a Forester*. He again cast about for a suitable ghostwriter. With the help of Smith and Harry Graves, Pinchot recruited Robert P. Holdsworth, a member of the forestry faculty at Massachusetts State College in Amherst. Holdsworth was already nearby, spending that summer at Grey Towers (Pinchot's home in Milford, Pennsylvania) organizing the former chief forester's archives and preparing synopses of some of its holdings. Better still, the two men developed a warm relationship, based as much on Holdsworth's evident research abilities as on their shared love of fishing and tennis. "Words fail me," Holdsworth would write Pinchot later that fall, "when it comes to expressing thanks for the great kindness which enveloped me at Grey Towers from the very moment of my arrival. Never in my life have I spent so interesting and satisfactory a summer." Pinchot was no less gracious: "We can certainly reciprocate everything that you say for we keenly enjoyed you being here, and are looking forward with equivalent anticipation to your work here next summer."²⁸

Beginning in July 1937 Holdsworth and Pinchot began rewriting *The Training of a Forester*. Holdsworth had read the book over the winter and developed some ideas about possible alterations in argument and focus, and

had come to believe in the book's "destiny." He reworked portions of each chapter and passed the revisions to Pinchot. None returned unmarked. Pinchot heavily edited Holdsworth's first draft both for style and content, a month-long process that followed the text through second and third drafts. The book, which was published in December, was thus a collaborative effort, a relationship Pinchot acknowledged by splitting the book's royalties with Holdsworth and in the preface to this edition calling it "our joint project."²⁹

But Pinchot's name was on the book's spine and he thereby assumed "ownership" of its ideas, some of which differed significantly from those in previous editions. In particular there were important changes in his discussion of the character of forestry education and in the conception of a forest itself. The earlier emphasis, for instance, on silvics, forest economics, and lumbering, three crucial elements in defining forestry's utilitarian orientation, was tempered by the insertion of new material that fell under the rubric "forest ecology." He thus advised his readers that while one must study and be able to identify through dendrology "the various kinds of trees" and their "individual habits of growth and life," readers must also "understand them as members of plant communities" and be able to discuss these communities' "relationships to each other and to climate and physiography," to soils and humus. Trees were rooted in diversity.³⁰

Forestry branched out in other ways, too; trees were no longer foresters' sole concern. Under the subject heading "forest protection," itself an area not included in earlier editions, Pinchot spoke of students' need to study entomology. That was in good measure due to the damage various insects could inflict on "forest vegetation," but in studying "how their attacks are made, how they may be discovered, and the best ways by which such attacks can be mitigated or controlled" the forester was compelled to adopt new methods of "cutting the forest during its various stages of development...to control or minimize the evil effects of attacks by insects,

fungi, and other enemies." Not all were injurious, so the well-trained forester must have a sophisticated understanding of the dynamic interactions within the forest community. Pine beetles and Spruce bud worms changed human behavior.³¹

They were not the only non-humans to complicate and even alter the forester's perspective. "The conservation of our native forest wildlife is of growing importance," Pinchot affirmed, and as a result he claimed a "general study of forest animals, fish and birds should be included in the Forester's training," as should courses in wildlife management. Such course work was essential because what "birds and animals do to and in the forest is not yet fully known." Caution in handling this "very real and highly interesting and essential part of a forest" was critical, he concluded, so that its "animal citizens" would not be destroyed.³²

Human needs were not always paramount, and perhaps in a forest, "a complex community with a life of its own," they never were. What mattered instead was that nature "governs the mutual lives and works of [this community] under a strict code of natural laws, so that despite the warfare, the pulling and hauling, and the helping, the forest tends in the long run to be kept pretty well in balance." This scientific insight had important implications for foresters' art: "The Forester, therefore, must know about these elements of the forest and their behavior" for "he, too, must work toward maintaining the balance of nature." The woodworker must work within nature's economy; utilitarian forestry had been undercut.³³

Utilitarianism was blunted in another respect as well. Pinchot now accepted that there were powerful, legitimate, and competing human claims on forested environments that forced a further reevaluation of agricultural forestry and a new definition of utilitarianism. He was not opposed to logging per se, and forever promoted forestry's economic contributions as he did on the first page of the 1937 edition when he declared that "the forest is a great renewable resource, which...need never be exhausted of its riches." Yet he also recognized that

one of these riches was simply that “woodlands are beautiful.” This “‘good’ which the forest offers so freely to all men cannot be measured in board feet and cords, in dollars and cents,” Pinchot observed. “It is immeasurable because it reaches and uplifts our inner selves,” a spiritual and aesthetic appreciation that confounds long-held assumptions about Pinchot’s unbending commitment to efficiency and productivity. Commentary like this led G. H. Chapman, who reviewed *Training of a Forester for American Forests*, to conclude that “those now established in the profession will find [the book] a means of re-orienting themselves in their chosen profession.”³⁴

Pinchot’s reorientation ironically depended on the utilitarian credo closely associated with him (by way of Jeremy Bentham): “the greatest good, for the greatest number over the longest period of time.” What would happen, for instance, if the definition of the greatest good changed over time, a shift in part dictated by what the greatest number construed as good? That question is decidedly political, and it is no surprise that Pinchot, whose antennae were sharp, responded to shifting currents in scientific scholarship and public concern.

In the late-teens and early-1920s, foresters began to incorporate into their work changes in scientific analysis of the environment, especially the interconnectedness of flora, fauna, and habitats, slowly adopting the language and precepts of ecology (a term invented in mid-nineteenth-century Germany). Through various permutations in its definition, the concept came to the United States in the late-nineteenth-century having evolved into what historian Donald Worster defines as the “science of the development of communities.” C. Hart Merriam, who as chief of the Bureau of the Biological Survey pioneered the field of habitat studies and was a mentor and friend of Pinchot during the latter’s first years in Washington at the Bureau of Forestry, was among the first practitioners of ecology. Another critical figure was Frederic E. Clements who advanced the twin notions of “climax communities” and “succession” as ways to gauge the “cycle of develop-

ment” through which he believed passed all plants and habitats. Clements criticized foresters in particular for failing to adopt this ecological insight, a failure he attributed to their close attention to tree reproduction “and little [attention] or not at all upon the shrubs and herbs of the forest floor.” These smaller plants, he argued, were “indicators” of forest habitat and of its evolutionary stage, a perspective that Pinchot inserted in the final version of *Training of a Forester* when, as one example, he acknowledged that the “herbs and woody shrubs beneath the trees, play great parts in forest life.” But it was forester Raphael Zon, and later Aldo Leopold and some of his peers, who had moved the concept of ecology into forest management by the time Pinchot adopted the term “forest ecology” to describe that aspect of a professional forester’s education. Pinchot had it right, therefore, when in his preface to *Training of a Forester*’s final edition he indicated that the book had been revised to “keep in tune with times,” implicitly acknowledging that both he and the book had once been behind the times.³⁵

Updating himself did not depend solely on shifts in intellectual discourse; there were earlier, political influences that led Pinchot to articulate a more holistic vision of forests and their place in American culture. Pinchot was lobbied while he was Pennsylvania commissioner of forestry in the early 1920s and the state’s governor in the mid-1920s and early-1930s. A number of particularly persistent conservation groups demanded that the state purchase private woodlands to expand or create new state forests, develop recreational areas within these lands, and preserve the rapidly disappearing remnants of Pennsylvania’s old-growth forests. Part of the groups’ strategy, dovetailing with Pinchot’s political aspirations, was to offer him an opportunity to speak before their organizations. In a series of addresses he sought to locate a happy medium between the economic or utilitarian perspective he had advocated as chief of the U.S. Forest Service, and a more preservationist posture that fit better his audiences’ vision. The fit was uncomfortable at times. The “destruction of our forests is a question of the

health and pleasure of the public,” he admitted in a 1919 speech, “but it is far more a question of business and economy.”³⁶

Even that tilt toward practicality was in question as Pinchot’s Arbor Day proclamation in 1923 demonstrated: “Trees, apart from their practical side, make for better manhood and womanhood by inspiring higher thoughts and cleaner ideas about life.” That created a catch: no trees, no clean ideas. The Governor resolved this by bending to public opinion and distributing state money to purchase and rehabilitate terrain that lumber companies had logged excessively. “And what we plant let us protect so that Pennsylvania...may become Penn’s Woods again in very truth.” Pinchot took this rhetoric seriously in other ways, intervening to stop the sale of one of the last of the state’s large tracts of hardwoods. He did so, he informed the Fairmount Park Art Association, for he believed that government should “protect and not destroy” such “precious possessions,” made all the more so because of their antiquity: “The old stumps and fallen logs are covered with moss, and the whole effect is that of a dense, rich and most beautiful primeval forest. If [the sale] had not been stopped [it] would have ruined this uniquely valuable forest.” The demands of electoral politics had prompted an epiphany of sorts. Pinchot’s definition of the “greatest good,” of what constituted “value,” had evolved significantly. One professional consequence of this evolution emerged in his revised conception of forests and forestry in *Training of a Forester*.³⁷

Taking Stock

A revisionary perspective breathed new life into the text, perhaps accounting for the book’s brisk sales (or perhaps brisk sales resulted because Lippincott shrewdly brought the book out in time for a rush of Christmas orders; “I guess December 1 is a good time to get on the book shelves,” Pinchot advised his anxious ghostwriter). Months later the book received another boost, securing what Holdsworth called “two very kindly reviews” in major forestry journals. Royalties for the first year were an impressive \$474.30, substantially

larger than the third edition accumulated in four years on the market. True to his word, Pinchot sent Holdsworth a check for half the amount. "You certainly deserve it," he wrote, acknowledging how much he had drawn on the younger man's energy to produce this new edition. "I have a sort of feeling that you ought to have the whole."³⁸

Holdsworth demurred "[y]ou have already been so generous with me that I feel guilty in accepting the check although I know you would not have me do otherwise in this case." It was not just Pinchot's generosity that beguiled him. He was frankly star-struck, enamored of "the rare opportunity that I have had to be with you and Mrs. Pinchot. I am in your debt far more than words can say," though that did not stop him from confiding his pride in rereading Pinchot's prefatory comments about his contributions to the book. So often did he gaze upon them "that the page is beginning to show wear and tear from being looked at." He even proposed that they alter their verbal agreement on splitting the royalties. "Let's call this payment in full, double plus." It was reward enough, it seemed, that professional colleagues and the public were reading their joint product. "The little book must be doing something," he observed, "and I rather think that it will travel quite a distance."³⁹

Pinchot himself had travelled quite a distance. His articulation of some central precepts and guiding principles of American forestry changed over the lifetime of *Training of a Forester*, changes that unfolded from one edition to the next. These alterations were at once semantic, the shifting of nomenclature or vocabulary, and reflective of a richly layered response to swings in the political landscape and social environments in which he moved. But Pinchot did not simply adapt to changing circumstances. He willingly revised himself and rewrote his own history when he altered the book's focus from utilitarian conservation to forest ecology, a conscious revisionism that suggests a larger, more complicated truth: like the trees he so lovingly studied, Pinchot was generative to the end.

Notes

Acknowledgements. I am grateful to the Trinity University Faculty Development Committee for a summer stipend to support this research; to Pete Steen, executive director of the Forest History Society, for the award of a Bell Fellowship to travel to the Society's archives; and to Cheryl Oakes, FHS librarian, who did so much to facilitate my research. Stan Goldman read the article with his usual sharp eye. This article is based in part on the author's biography of Gifford Pinchot (Basic Books, forthcoming 1995).

1. See Char Miller, "Before the Divide: John Muir, Gifford Pinchot and the Early American Conservation Movement," in Char Miller, *Gifford Pinchot: The Evolution of an American Conservationist* (Milford, Pennsylvania: Grey Towers Press, 1993), pp. 3-40; Gifford Pinchot, *Breaking New Ground* (New York: Harcourt, Brace & Co., 1946), pp. 122-32; Stephen Ponder, "Conservation, Community Economics and Newspapering: The Seattle Press and the Forest Reserves Controversy of 1897," *American Journalism* 4 (January 1986): 50-60.
2. Ponder, "Conservation, Community Economics and Newspapering," provides the best overview of Pinchot's activities in Seattle; Gifford Pinchot to parents, 7 July 1897. Pinchot, *Breaking New Ground*, pp. 122-32. All references to correspondence are to the Gifford Pinchot Papers, Library of Congress, Washington, D.C.
3. Stephen Ponder, "Gifford Pinchot: Press Agent for Forestry," *Journal of Forest History* 31 (January 1987): 26-35.
4. Pinchot, *Breaking New Ground*, p. xxiv.
5. Classic analyses of utilitarian conservation appear in Roderick Nash, *Wilderness and the American Mind* (New Haven, Connecticut: Yale University Press, 1967) and Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Cambridge, Massachusetts: Harvard University Press, 1958).
6. Gifford Pinchot, *The Training of a Forester* (Philadelphia, Pennsylvania: Lippincott, 1917), pp. 6-7; American Library Association, *Booklist*, June 1914, p. 404, picked up on, and endorsed, Pinchot's sense that he alone could provide "expert" advice on this question.
7. *The Training of a Forester* appeared in four editions. The 1914, 1917, and 1933 versions were published without substantive changes, although the 1933 edition added a brief prefatory note along with updated dates, figures, and other information on national forests. The 1937 edition was a thorough overhaul, from the preface and table of contents to the text itself. This article will offer a comparative analysis of the key differences between the 1917 and 1937 editions.
8. Hays, *Conservation and the Gospel of Efficiency*; Clayton Koppes, "Efficiency, Ethics and Aesthetics," in Donald Worster, ed., *The Ends of the Earth* (Oxford, England: Oxford University Press, 1988), pp. 230-51; some intellectual origins of progressivism are discussed in Peter Coleman, *Progressivism and the World of Reform* (Lawrence: University Press of Kansas, 1987); the impact of German ideas on American forestry is explored in Char Miller, "The Prussians are Coming! The Prussians are Coming! Bernhard Fernow and the Origins of the USDA Forest Service," *Journal of Forestry* 89 (March 1991): 23-27, 42; Char Miller, "Wooden Politics: Bernhard Fernow and the Quest for a National Forest Policy," in Harold K. Steen, ed., *The Origins of the National Forests* (Durham, North Carolina: Forest History Society, 1992), pp. 287-300.
9. Pinchot, *Training* (1917), pp. 113-19, 23-25.
10. Pinchot, *Training* (1917), pp. 18-19, 131-34. Pinchot's delineation of Progressive Era forestry curricula is confirmed in Henry S. Graves and Cedric H. Guise, *Forest Education* (New Haven, Connecticut: Yale University Press, 1932); Andrew Denny Rodgers, *Bernhard Eduard Fernow: A Story of North American Forestry* (Princeton, New Jersey: Princeton University Press, 1951); George A. Garrett, "Gifford Pinchot and Forestry Education," *Journal of Forestry* 63 (August 1965): 597-660; Henry Schmitz, *The Long Road Travelled: An Account of Forestry at the University of Washington* (Seattle, Washington: Arboretum Foundation, 1973); Paul Cassamajor, ed., *Forestry Education at the University of California: The First Fifty Years* (Berkeley: California Alumni Foresters, 1965).
11. Pinchot, *Training* (1917), pp. 123-40. Pinchot was not in favor of unrestrained corporate forestry, and over the years, with increasing intensity, called for tighter government regulation. Some costs of the Progressive Era's marriage of science and capitalism emerge in Koppes, "Efficiency, Equity, Aesthetics," and Harold K. Steen, *The U.S. Forest Service: A History* (Seattle: University of Washington Press, 1976).
12. Pinchot, *Training* (1917), pp. 22-23; Robert Weibe, *The Search for Order* (New York: Hill & Wang, 1968), pp. 164-95.
13. The intellectual link between Pinchot's and Addams's approaches was not accidental. The two met each other through political and social gatherings, corresponded over time, and shared ideas and methods of reform. See Jane Addams, *Spirit of Youth and the City Streets* (New York: Macmillan Co., 1909).
14. Pinchot, *Training* (1917), pp. 84-88.
15. Pinchot, *Training* (1917), pp. 106-108.
16. Pinchot, *Training* (1917), pp. 84, 64-67.
17. Pinchot to J. W. Lippincott, 1 January 1914; Lippincott to Pinchot, 24 January 1914.

18. Pinchot, *Training* (1917), pp. 27-28. For a detailed evaluation of Pinchot's political career see Nelson McGeary, *Gifford Pinchot: Forester-Politician* (Princeton, New Jersey: Princeton University Press, 1960); Char Miller, "The Greening of Gifford Pinchot," *Environmental History Review* 16 (Fall 1992): 1-20.
19. McGeary, *Pinchot*; Miller, "The Greening of Gifford Pinchot." The Pinchot-Ickes debates are discussed in Hal T. Rothman, "'A Regular Ding Dong Fight': Agency Culture and Evolution in the NPS-USFS Dispute, 1916-1937," *Western Historic Quarterly* 20 (April 1989): 141-62; Graham White and John Maze, *Harold Ickes of the New Deal: His Private Life and Public Career* (Cambridge, Massachusetts: Harvard University Press, 1985), pp. 161-66, 190-92; T. H. Watkins, *Righteous Pilgrim: The Life and Times of Harold Ickes* (New York: Henry Holt, 1990), pp. 560-61.
20. Lippincott to Pinchot, 26 January 1917; Lippincott to Pinchot, 26 February 1917. Pinchot felt so little proprietary concern for *Training of a Forester* that in 1933, when he again decided that he did not have time to revise it significantly, he proposed that Lippincott publish the work of another forester in his book's stead. "It is a very generous act on your part to call attention to another work that would seem to be directly competitive with your book." Jefferson Jones of Lippincott responded "and, were it not for this, we would be very interested." Pinchot to Jefferson Jones, 30 August 1933; Jones to Pinchot, 31 August 1933.
21. Jones to Pinchot, 8 June 1933.
22. Edgar R. Nixon, ed., *Franklin D. Roosevelt and Conservation, 1911-1945* (New York: Arno Press, 1972), pp. 129-32; Miller, "The Greening of Gifford Pinchot," pp. 13-16, 17-18.
23. Miller, "The Greening of Gifford Pinchot," pp. 13-16, 17-18.
24. Pinchot to J. Jefferson Jones, 29 June 1933; Pinchot to Herbert Smith, 29 June 1933.
25. Smith to Pinchot, 4 July 1933; Pinchot to Jones, 11 July 1933; Pinchot to Smith, 18 July 1933; Smith to Pinchot, 20 July 1933; Pinchot to Smith, 22 July 1933.
26. Pinchot to Smith, 22 July 1933. Royalty statements are incomplete, but it appears that the second edition sold better than its successor: during the six months preceding January 1932, for example, 118 copies of the book sold. Third edition sales were slower: by January 1934, 56 copies sold, by April 1936, 50 copies, and by June 1937 (just months before appearance of the final edition) sales were only 34 copies. Sales receipts located in Box 326, Gifford Pinchot Papers, Library of Congress.
27. Gifford Pinchot, *Diary, 1933-1936*, Gifford Pinchot Papers, Library of Congress, Washington, D.C. Pinchot to Raphael Zon, 18 May 1936; for a general discussion of Pinchot's political actions and aspirations, see McGeary, *Gifford Pinchot*.
28. Pinchot, *Diary*, June-August 1936. Holdsworth's monthly salary while at Grey Towers was \$330.00; Morris Gregg to Pinchot, 31 July 1936. Robert P. Holdsworth to Pinchot, 10 September 1936. Pinchot to Holdsworth, 16 September 1936. Graves reported to Smith that Pinchot "seemed much pleased with Holdsworth. Your suggestion about enlisting Holdsworth's interests was inspirational"; Graves to H. A. Smith, 22 September 1936. Pinchot, *Diary*, 22 March 1937.
29. Pinchot used ghostwriters for previous books and speeches, but as the original drafts reveal, he clearly labored over the words and ideas to make them his own. An example, drawn from one draft of the 1937 version, demonstrates Pinchot's editorial activity and acuity. Holdsworth's version: "After the Technical Forester has made a thorough estimate of the timber on one of these natural logging units, he can tabulate from his data a large amount of practical information. He will have at hand, for example, figures which give the total volume of timber on the unit. These figures will be broken down to show the amount of volume represented by each species and the volume of each species contained in the trees, both above and below the specified diameter limits." Pinchot's revision: "After the trained Forester has made a thorough estimate of the timber on any natural logging unit, he will have at hand much practical information, such as the total volume of each species, and the volume of each species above and below the specified diameter limits." His attention to grammar and language was evident throughout; see "Training of a Forester," 7-13-37 draft; Pinchot to Holdsworth, 11 November 1937; Pinchot, *Training* (1937), p. v; Holdsworth to Pinchot, 29 November 1937.
30. Pinchot, *Training* (1937), pp. 81-83. Surely Pinchot's discussion of curriculum leaned heavily on Holdsworth's close association with forestry education, although as a member of the board of directors of the Yale School of Forestry and leader of forestry educational reform initiatives throughout his career, he no doubt was familiar with these curricular changes first hand. See Graves and Guise, *Forest Education*, pp. 15-20.
31. Pinchot, *Training* (1937), pp. 86-87, 1-2, 8-9; Graves and Guise, *Forest Education*, pp. 151-52.
32. Pinchot, *Training* (1937), pp. 93, 7-9; Aldo Leopold, *Game Management* (New York: Scribner, 1933); Graves and Guise, *Forest Education*, pp. 161-62, takes a more utilitarian view of wildlife management.
33. Pinchot, *Training* (1937), p. 9. This ecological orientation challenges the critical evaluation of Pinchot's forestry in Donald Worster, *Nature's Economy: The Roots of Ecology* (San Francisco, California: Sierra Club Books, 1977), pp. 266-69.
34. Pinchot, *Training* (1937), pp. 1, 10, 14; Worster, *Nature's Economy*, pp. 226-69; Max Oelschlaeger, *The Idea of Wilderness: From Prehistory to the Age of Ecology* (New Haven, Connecticut: Yale University Press, 1991), pp. 201, 209; G. H. Chapman, *American Forests* 44 (July 1938): 333.
35. Worster, *Nature's Economy*, pp. 189-225; Anna Bramwell, *Ecology in the 20th Century: A History* (New Haven, Connecticut: Yale University Press, 1989), pp. 22-31; Frederic E. Clements, *Plant Succession and Indicators* (New York: H. W. Wilson Company, 1928), pp. 220-24, 420-37. Clements's criticism was in fact informed by the work and ideas of forestry scientists Harry Graves and Raphael Zon, both close friends of Pinchot. Clements's ideas about "climax communities" and "succession," while they anticipate late-twentieth-century ecological thought, have fallen out of favor according to Andrew Brennan, *Thinking About Nature* (Athens: University of Georgia Press, 1988), pp. 46-48, 53-54, 101-102. Pinchot, *Training* (1937), p. 7; Aldo Leopold, *Sand County Almanac* (New York: Oxford University Press, 1949); Curt Meine, *Aldo Leopold: His Life and Work* (Madison: University of Wisconsin Press, 1988), pp. 340-505; Steen, *The U.S. Forest Service*, pp. 317-18; Pinchot, *Training* (1937), p. iv. By advancing "forest ecology," Pinchot was ahead of most forest educators. The term ecology appears once in Graves and Guise, *Forest Education*, a four-hundred-page evaluation of contemporary forest curricula, and does not appear in any of the following: Cassamajor, ed., *Forestry Education at the University of California*; Schmitz, *The Long Travelled Road*; Henry Clepper, "Forestry Education in America," *Journal of Forestry* 54 (July 1956): 455-57; Henry Clepper and Arthur B. Meyer, eds., *American Forestry: Six Decades of Growth* (Washington, D.C.: Society of American Foresters, 1960).
36. John Wilson Furlow, Jr., "An Urban State Under Siege: Pennsylvania and the Second Gubernatorial Administration of Gifford Pinchot, 1931-1935" (Ph.D. diss., University of North Carolina, 1973); Gifford Pinchot, "Forestry and Conservation" (1919 speech), Gifford Pinchot Papers, Library of Congress, Washington, D.C.
37. Pinchot, "Address to the Fairmount Park Art Association," 15 January 1920; Pinchot, "Address Before the Carlisle Civic Club," 3 May 1920; Pinchot, "Proclamation: Arbor Day and Bird Day," 27 February 1923.
38. Pinchot to Holdsworth, 13 November 1937; 11 November 1938.
39. Holdsworth to Pinchot, 29 November 1937; 31 July 1938; 10 November 1938.