

# VERMONT

*The  
Proceedings of the  
Vermont Historical Society*

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# HISTORY



WINTER 1996

VOL. 64, NO. 1



# A Forest in Every Town: Vermont's History of Communal Woodlands

*As settlement penetrated northern New England during the eighteenth and nineteenth centuries, designation of public lands followed a well-defined regimen. Vermont's history of communal forests begins on these public lands.*

By ROBERT L. McCULLOUGH

**T**he history of New England's communal forests spans four centuries as it threads a path through a woodscape of discrete type and period: common land, public land, twentieth-century town forests, watershed plantations, and forest parks. Vermont towns have played an important role in this history and have contributed to the evolving policy of utility and stewardship of these forests. Town woodlands have, in turn, endowed the maturing structure of Vermont communities and are as much a part of the state's urban and village history as they are its forest history.

## COMMON LAND

In New England's seventeenth-century nucleated villages, groups of individuals obtained land grants from colonial governments and became town proprietors. Apart from certain land parcels awarded to individuals or assigned to community function—cemeteries, pounds, or central grazing areas, for example—these proprietors held remaining lands in common, a form of undivided ownership, with each person sharing a proportional right to use the whole subject to restrictions against waste or abuse. The vast common weald that surrounded these villages thus became a shared resource, one that was essential to survival in an unfamiliar environment. However, patterns of settlement quickly changed as private ownership of land became the surest means to individual prosperity. By the time settlement in Vermont had gained ground during the

last half of the eighteenth century, absentee proprietors motivated primarily by speculative intent dominated the formation of towns. Although lands were initially held in common, boundaries were quickly surveyed and parcels offered for immediate sale. As a result, expansive common woodlands never became a significant town resource in the Green Mountain State.

Not all proprietors were successful at rapidly converting land to currency, and some clung to their holdings in common until divisions could occur. Some even took steps to conserve select white pine, suitable for ship masts, pending land sales. Yet there is little to suggest that commonly owned resources directly benefited Vermont communities. Indeed, particularly valuable stands of timber were sometimes divided among proprietors into small, single-acre "pine lots" as a method of financing their investments. Ironically, sale of these parcels, or at least the timber, proved easier than the sale of individual building lots essential to community settlement.<sup>1</sup>

#### PUBLIC LAND

In New England's early towns, expansive common lands had dwindled by the close of the seventeenth century. But a second class of communal property, public lands, remained. Parcels allotted to subsidize the cost of church, minister, and school were required by town charters and were generally free from any underlying proprietary interest. On occasion, lands were simply reserved for the public at large. Ownership of ministry and church lots, often called glebe lots, sometimes accrued to the intended beneficiaries, sometimes to towns; disputes on the point were routine. Although common land sustained communities as a whole, public land supported key pieces of community structure. These allotments are tightly bound to town origins, much as ancient common lands embody village antiquity in England. Where forest cover remains on New England's public lots, an especially fitting antiquity for American towns also exists.

Distinctions between common and public land are subtle but nonetheless important. They hinge on the extent to which communal benefit dominates any underlying individual ownership. When public lots were specifically assigned from common land or purchased outright from private owners, the roots of public character were unmistakable. At other times transformation was casual, almost imperceptible, as where community forces—represented by concerted voice or commitment—eventually outweighed any outstanding claims by proprietors. When that happened, common ownership ripened into public title. Town commons, central to many New England villages, are sometimes good examples. There

the terms *common* and *public* are synonymous, the nature of communal benefit complete in both. Although New England's expansive common lands have been frittered away, some communities have clung to their ancient public lands, and a number of ministry and church lots now appear in the guise of town forests. As settlement penetrated northern New England during the eighteenth and nineteenth centuries, designation of public lands followed a well-defined regimen. Vermont's history of communal forests begins on these public lands.

Vermont is a mosaic of town charters, some issued by New Hampshire's governor, Benning Wentworth, and some by its own government, first as an independent state following the Revolutionary War and later as one of the United States. In addition to keeping a generous portion for himself, Wentworth's charters reserved four public lots, one each for glebe, the first settled minister, town school, and the Society for the Propagation of the Gospel in Foreign Parts (the Church of England's missionary order). Vermont charters stipulated five categories of public lots: those for the first settled minister, the town school, social worship of God (the gospel lot), the county grammar school, and the college or seminary. Not surprisingly, a bewildering system of allocation developed. After a series of legislative confiscations and court battles, however, a number of these lots fell to town supervision, notably glebe lots under Wentworth charters, gospel lots under Vermont charters, and school lots under both. Reasoning that public lots were intended as a trust for future generations, Vermont courts prevented conveyance of fee title to these lands and devised an exception to the judicial bias against perpetual or durable leases. These parcels became known as lease lands, and revenue from long-term rental agreements was dispersed to assigned beneficiaries. Lots nominally assigned for the first settled minister in both Wentworth and Vermont charters just as often remained under town control. The state legislature periodically granted Vermont's grammar school lots to town schools or, alternatively, to local private academies that flourished during the nineteenth century. Wentworth reservations for the Church of England missionary society were eventually deeded to the state's Episcopal diocese.<sup>2</sup>

The history of lease lands in Vermont is as checkered as the landscape patterns these parcels delineate. Beneficiaries were not always careful about stewardship of their property, town officials proved to be indifferent record keepers, inflexible rents yielded poor long-term returns, leases were not recorded, and more than a few tenants became confused about title to their property, deeding parcels outright. Elsewhere, knowledge of lot boundaries passed from collective memory and were lost. In contrast to early nucleated villages, where public lands were located with community purpose in mind, absentee proprietors bent on maximum profit



"A Plan of Westmore, drawn from the Fieldbook." Unsigned; no date (ca. 1800?). Westmore town clerk's office. Photograph by Robert L. McCullough. Note the designations of lot 13 for the University of Vermont lease land, lot 16 for a "colledge," lot 43 for the minister's settlement, lot 52 for the town school, and lot 62 for the county grammar school. In 1900 lots 29, 43, and 44 were combined to form a church woodlot. See p. 10 of this article.

for their investment placed lots on remote or inaccessible sites, seldom near village centers. Thus the same quest that undermined common land in early villages and caused its absence in later towns also led to a weakening of public land systems in planning later communities. A glebe lot atop the westerly peak and face of Mount Ascutney in West Windsor, for instance, continues to defy ground delineation. The names of some parcels reflect the wry humor of their towns' founders: Glebe Mountain in Londonderry and Governor's Mountain in Guilford. Such lands promised nothing of value other than timber, and leases amounted to little more than sale of timber rights. In the far northeastern corner of the state, for example, Lemington leased its lot for the first settled minister in 1870 "for as long as wood grows and water runs" but required security against damage to the lot prior to any logging. In 1937, following a study that exposed many of these failings, Vermont's legislature finally permitted towns to sell their lease lands, requiring that proceeds be placed in trust for beneficiaries. A great many have done so.<sup>3</sup>

Shortcomings notwithstanding, the contributions of Vermont's lease lands have been dismissed too quickly. Birth of community and the sharing of land and its resources are inseparable, a union that extends beyond recorded history. The imprint of this relationship on the landscape has slowly changed, possibly more so during the last century than during the preceding millennium. The large-scale planning of new towns that occurred in America is unique in urban history, and Vermont's variations on a theme are an intriguing part of that story. More important, the wisdom of Vermont jurists in recognizing not so much the present value of land in sustaining communities and their institutions but instead the uncertainty about the needs of future generations was superbly enlightened nineteenth-century policy. Remaining lease lands are thus a worthy monument to that policy.

Yet lease lands hold more than just symbolic value. Some have transcended the cunning of absentee proprietors and have contributed to an evolving woodland ethic that characterizes the bond between forest and community in New England. With interest in municipal forests budding during the first quarter of the twentieth century, Vermont towns began looking for available land to place under woodland management. Delinquency in lease rentals allowed towns to reclaim some parcels; inaccessibility helped preserve others. At various times the towns of Arlington, Bloomfield, Cabot, Huntington, Lemington, Morrisville, and West Windsor have all designated lease lands as municipal forests. A school lot on Saxon Hill in Essex, one of five or so peaks in the town to approach the 1,000-foot elevation mark, became jointly managed with the Essex Junction village forest, an adjoining watershed near the village of Essex Center.

School lots in Arlington, Bloomfield, and Lemington were also designated as municipal forests.<sup>4</sup>

Public endowments seldom paid all expenses, and some schools either purchased or were given land for supplemental income or wood fuel. These lands, too, contributed to an evolving woodland ethic. In 1817 two large tracts in nearby Pomfret were donated to Royalton's public grammar school, chartered in 1807 as Royalton Academy. These lots were leased in "fermeletten," "for as long as grass grows and water runs," and the income thus generated paid for the instruction of young men fit for the ministry or, if worthy candidates were scarce, went into the school's general fund. Lease agreements, however, imposed certain conditions regarding forest resources. Tenants were required to reserve 30 acres of woodland from every 100 acres cleared and were prohibited from wasting and stripping the forest. Land was to be cultivated according to rules of good husbandry, and every cleared 5-acre parcel had to be groomed and fenced before additional cutting was allowed. Tenants were granted use of only enough timber and wood to accommodate the needs of two families for fencing, building materials, and fuel. Elsewhere in Vermont, 52 acres of land known as the Quintas Allen pasture were willed to Wilmington's school district in 1884 and eventually became a municipal forest.<sup>5</sup>

Churches benefited from supplemental land endowments as well. In Westmore the first pastor and founder of the village's Congregational church, Charles O. Gill, was a classmate of Gifford Pinchot at Yale. During a visit to Westmore by Pinchot, then chief U.S. forester, Gill convinced his friend to contribute to the acquisition of a church woodlot. Pinchot acquiesced as long as the property would be managed according to sound forestry practices. Gill promptly purchased available land and donated it to the church in 1900. His conveyance of roughly 400 acres included all of lot 29 together with part of lot 44 in the town's first division of lands. The woodland was combined with lot 43, the town-owned minister's settlement lot, to create a church forest of nearly 700 acres. The church itself had been built in 1894 with timber taken from the minister's lot, and the parsonage and community house were later erected with lumber from all three lots.<sup>6</sup>

Daunted by volatile timber markets and complex stumpage measurements, church members relinquished management of their forest to Vermont's Domestic Missionary Society but retained rights to cut trees for building repairs or fuel. Profits from timber harvests were to be held in trust to sustain an annual stipend of \$200 for the church or its pastor. Church officials also inquired about forestry management and wrote in 1904 to both the U.S. Bureau of Forestry and the Forestry Association of Vermont. The Forestry Bureau sent a copy of *Circular 21*, a summary

of Pinchot's assistance program for lumbermen and farmers, and offered a timber inspection by a trained forester—at no cost for small parcels, and with fees for larger tracts calculated according to expenses incurred. The church apparently did not pursue enrollment in Pinchot's program, however; their inquiry did not mature much beyond this correspondence. Nevertheless, periodic timber sales, seemingly well supervised, were conducted under a logging agreement that protected young spruce. Control of the forest was returned to the church in 1979 when the resolution of 1904 was rediscovered and interest in preserving the woodland renewed. Although it conceded town ownership of the minister's lot, the church has retained the privilege of cutting timber.<sup>7</sup>

Public woodlots of a different type appeared in New England during the first half of the nineteenth century as towns began acquiring farms to subsidize the costs of welfare. Town farms, just as often called poor farms, quickly became widespread. Ordinarily, these refuges were far from desirable places to live—in location as well as façade. Shame and humiliation characterized journeys to the poor farm, and towns often accentuated this odyssey by selecting sites remote from village centers and the public mind. Paupers were thus forced to travel in symbolic penitence along Poor Farm Road or Alms Road. Some communities called their farms “asylums” or their residents “inmates,” the latter a linguistic remnant of English practice that equated penury with crime. In truth, poor farms housed the insane as well as the indigent, disabled, and old. Prevailing hardships notwithstanding, many such farms were managed competently and provided adequate homes. Town officials known as overseers of the poor prepared annual reports that itemized inventories, expenses, and sales.

Agricultural products were the staples of this welfare system, and output often reached respectable levels. Woodlots contributed supplies of fuelwood, building materials for farm operations, and lumber or other products for public sale. When towns purchased farms without adequate woodland, they sometimes acquired separate parcels as well; in Vermont, Rochester is a good example. As one might expect, milk, butter, and cheese produced regular income on many Vermont farms. Middlebury's overseers routinely shipped milk to a cheese factory and recorded monthly cream checks. They also sold substantial amounts of hay and oat straw and conducted a hefty trade in livestock. Occasional sales of ash and basswood lumber and cedar posts augmented Middlebury's dairying operations, and the town may have been about average in its balance between the two. In other locales, however, forest resources played a more substantial role. The town farm in Calais, for instance, did a steady business in cedar posts interspersed with sales of basswood lumber, shingles, and

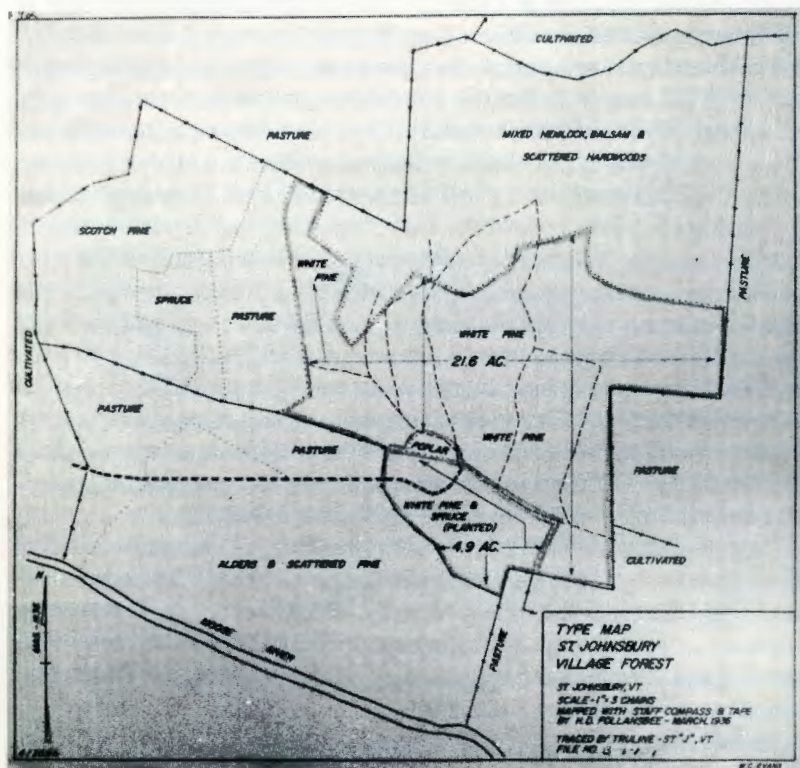


even telephone poles. A crop of sixty-five poles in 1884 netted \$13.00 and occurred at a time when commercial telephone service was just beginning in Vermont; sales in 1894 and 1905 netted \$30.00 and \$55.10, respectively. In 1886 the sale of 2,961 feet of "lumber in log" generated \$10.41. This type of consistent but measured marketing of wood products suggests a utilitarian stewardship that recognized the renewable nature of woodlots and sought to sustain resources over a period of time. This conservation ethic is significant, too, because it is so firmly rooted in community welfare.<sup>8</sup>

As the nineteenth century waned, state governments began to assume a greater role in caring for the destitute, and the formation of philanthropic organizations such as the Salvation Army also eased local burdens. As a consequence, scores of town farms were closed. These events coincided with burgeoning interest in local forestry, and a great many New England towns opted to convert poor farms or their woodlots to town forests. Decline of town farms did not occur uniformly throughout New England, however, and some of these charitable enterprises persevered in Vermont throughout the first half of the 1900s. Ironically, the state's town forest movement did not fully mature until after 1950, and decline of its poor farms continued to coincide with progress in municipal forestry over a period that lasted much longer than in other New England states. For instance, Calais, Danville, Rochester, Rockingham, St. Johnsbury, Thetford, and Woodstock all successfully transformed poor-farm lands to municipal forests during a period that began during the 1920s and ended after 1960. Credit for one of the early examples belongs to the St. Johnsbury Women's Club, whose members were responsible for reforestation of the town's 120-acre farm—accessible via Alms Road.<sup>9</sup>

#### TOWN FORESTS

Transition from poor-farm woodlot to town forest was easy in many communities. Professional foresters supervised the harvesting of marketable timber and began transplanting on abandoned tillage, ideal soil for the white pine, red pine, and spruce seedlings that grew to dominate town forests. Presence of mature trees—extensive on many woodlots—during the declining years of poor-farm welfare is further evidence of the stewardship many communities practiced. Moreover, salable timber became a timely boon to the town forest movement. Income from harvests helped persuade local officials of the profitability of municipal forestry during a crucial period when towns were being encouraged to purchase land. Cutting also provided an opportunity to educate the public about the need for silviculture on the understory, or young trees. In 1926, shortly after the 100-acre poor-farm woodlot in Calais was converted



*"Type Map, St. Johnsbury Village Forest," by H. D. Follansbee. March 1936. St. Johnsbury town clerk's office. Photograph by Robert L. McCullough.*

to a town forest, E. A. Lamphere, the town forester, examined the tract and reported stands of white pine, cedar, spruce, hemlock, fir, and mixed hardwoods. Cutting and planting began that year and continued for the next several years. In 1927 sales of hardwood to the U.S. Clothes Pin Company in Montpelier, bark to the Warren Leather Company, and miscellaneous lumber trade generated income of more than \$1,000. Lamphere also noted that William B. Greeley, who became chief U.S. forester in 1920, had inspected the Calais town forest.<sup>10</sup>

The town forest movement emerged as an outgrowth of changing attitudes about America's forests, a rethinking that took form during the second half of the nineteenth century. Concern for depleted timberlands, emergence of professional forestry, and synthesis of a conservation movement all helped foster community initiative as well. The appointment of Bernhard Fernow to head the U.S. Department of Agriculture's forestry division in 1886 marked a turning point. Fernow, a Prussian-born professional forester, was well acquainted with Europe's prosperous communal forests and urged a similar program for this country. Pointing to models of forestry management such as Zurich's Sihlwald, Fernow wrote in 1890: "If every town and every county will give profitable occupation to its waste lands by utilizing them for forest growth, the movement would not only increase the financial prosperity of each community, the efforts of those who work for a rational forest-policy in the country at large would be subserved by every communal forest established."<sup>11</sup>

Despite Fernow's enthusiastic introduction, his successor, Gifford Pinchot, was far less sanguine about the prospects for town forests in the United States. As a consequence, the U.S. Forest Service did not become an active participant in the movement until Franklin Roosevelt's administration. The lead fell, instead, to private forestry associations and state forestry offices.

Although town forests became popular in New York, Pennsylvania, and several midwestern states, New England towns seized the idea with an enthusiasm never quite matched in other states. The region's ancient bond between community and forest was largely responsible, and town forests endured in New England long after interest in other states faded. The Massachusetts Forestry Association (MFA), led by Harris A. Reynolds from 1911 until 1953, became the vanguard for the town forest movement. Massachusetts, New Hampshire, and Vermont developed the region's strongest programs during the movement's first several decades. Enabling laws, enacted in all three states by 1915, marked the beginning of a class of local forests devoted by statutory definition to timber production. With town forest contests launched by the MFA that same year, the movement's plantation phase was under way. Maine, Rhode Island, and Connecticut

eventually joined with less ambitious laws passed in 1927, 1929, and 1939, respectively.<sup>12</sup>

Vermont's 1915 enabling law authorized the purchase of land by towns for the purpose of growing timber and wood, and it established a special category, school endowment forests, for parcels of 40 acres or more that had been inspected and approved by a state forester. Responsibility for managing endowment forests was also left to government foresters, who supervised all cutting. Town wardens were given the job of protecting against fires and vandalism, and income from harvests went to town treasurers, who were required to file annual reports. A 1917 amendment replaced school endowment forests with municipal forests but retained the 40-acre requirement, the first of several important features that distinguished Vermont's program from those in other New England states.

Initially, municipal forestry in Vermont was practiced most actively on watershed lands. Barre, Bellows Falls, Brattleboro, Chester, Essex Junction, Montpelier, Northfield, Rutland, Springfield, Stowe, and Waterbury all established forests to protect their water supplies, and all began planting by 1926. In other towns municipal forests were acquired by grant or direct purchase and were often attempts to put idle or abandoned farmland to good use. In 1921 Sheffield purchased an outlying farm to eliminate any future need for plowing snow and transporting schoolchildren along the remote mountain road that led to the farm. Timber rights were reserved by the seller for a three-year period, but the town annually cut and sold hay. Reforestation began in 1926, the year the town acquired a second nearby farm, and the community organized a planting bee to set out 25,000 Norway spruce seedlings.<sup>13</sup>

In Massachusetts the movement was buoyed by a prolific flow of material published by the MFA. In these writings Harris Reynolds envisioned an impressive list of benefits: reversal of deforestation, reclamation of idle lands, increase in property values, reduction of timber shortages, employment, support of local wood-products industries, and, all the while, town revenue. Advocacy for commercial forestry was usually carefully balanced by appeals to recreational users. Underlying the entire campaign was a subtle prod to advance public education on matters of forestry. In New Hampshire biennial reports by a small core of state foresters, Warren Hale and John Foster prominent among them, and articles in the state forestry agency's newsletter, *New Hampshire Forests*, fulfilled a similar function.

Vermont lagged behind its two neighbors in the number of town forests established before World War II. In 1930 the state forester reported 8,919 acres in forty-two forests, roughly half the number of forests in

both New Hampshire and Massachusetts. Vermont's numbers did not advance significantly before 1945, and absence of vigorous promotion by a private organization such as the MFA was almost certainly a factor. Although New Hampshire had a comparable disadvantage, the writing of Hale and Foster imparted a zeal that was at least partially dormant in Vermont during this period. Moreover, ancient parsonage and church lands near village centers in two New Hampshire towns, Danville and Newington, became model town forests and generated enthusiasm (as well as timber products) among foresters and the public alike. In Vermont biennial reports by the state forester only briefly discussed the topic, did not expound on European communal forests, and generally neglected to mention progress in specific towns. Although Robert Ross, the state's commissioner of forestry, prepared a 1924 booklet entitled *Town Village and City Forests in Vermont*, it was little more than a word-for-word restatement of a bulletin by the MFA.<sup>14</sup>

The numbers of town forests in Massachusetts, New Hampshire, and Vermont are not a complete measure of the movement's comparative popularity in these three states. Communication between towns and state foresters was often sporadic, and the latter's biennial reports, although useful, were not all-encompassing in matters of local forestry. In addition, many New Hampshire towns began planting on tax-forfeited lands, abandoned after ruthless clear-cutting, and these parcels were often included in the state's tallies. For reasons unclear, fewer such examples occurred in Vermont. Vermont's 40-acre law, not always closely observed, nevertheless may have dampened interest in some towns. By comparison, neither Massachusetts nor New Hampshire communities were bound to any minimum size. Surprisingly, by 1930 the plantings on Vermont's municipal forests were equal to, and possibly exceeded, those in New Hampshire. Explanation lies in the intensive management of watershed forests, notably in Rutland, Essex Junction, Bellows Falls, and Montpelier.

Developments after 1945, however, provide the most convincing evidence of Vermont's initial unhurried pace. That year the legislature amended the state's enabling law and began reimbursing towns for half the price of lands acquired for forests. A separate law enacted in 1951 required communities to include propositions for municipal forests in warnings for annual town meetings. Vermont's forest service subsequently created positions for two full-time municipal foresters, the only New England state to do so. With both financial and technical assistance mandated by law, Vermont now set a progressive standard. Its program soon flourished, surpassing those in Massachusetts and New Hampshire after 1960. Management records are comprehensive and accessible, and the locations of many municipal forests have been plotted on town highway

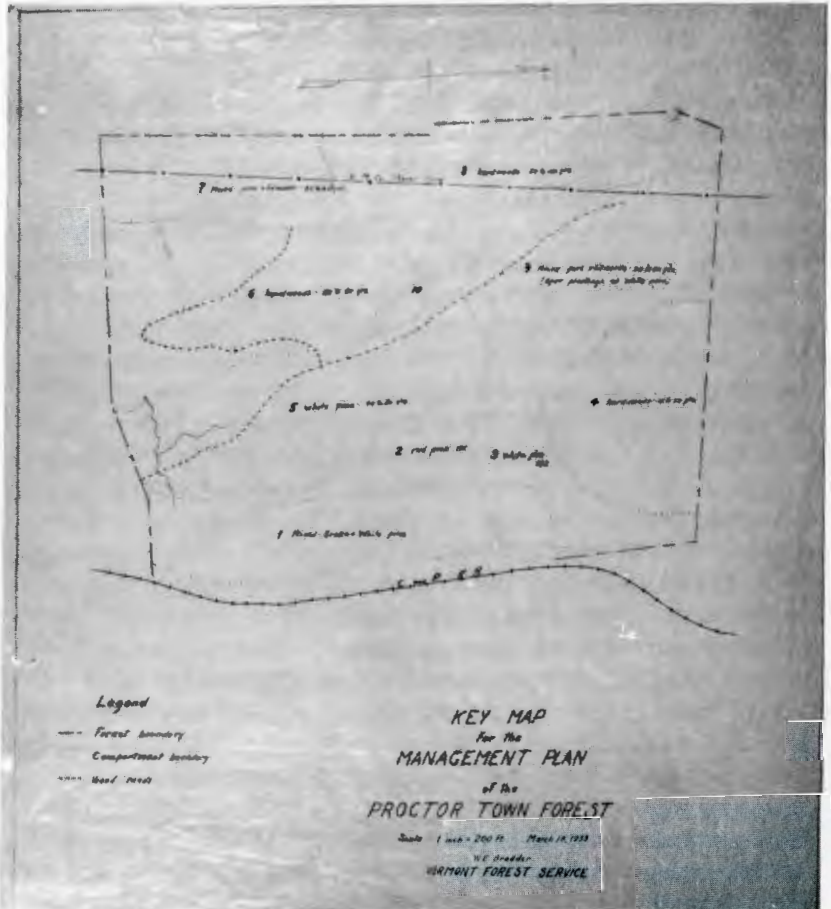
maps, a practice observed nowhere else in New England. A number are still managed for timber and wood, and the 40-acre rule, although eliminated in 1977, probably deserves a sizable portion of the credit.<sup>15</sup>

Vermont's municipal forests (and those in other New England states, too) were planted with fast-growing, commercially salable, coniferous types: red, scotch, and white pine or Norway and white spruce. Many of the transplanted seedlings were obtained at cost from the state nursery in Essex, and the Vermont Forestry Association offered to plant 5,000 trees in any town establishing a forest of 100 acres or more. The forest service's newsletter, *Green Mountain State Forest News*, chronicled the progress of land acquisitions, formation of municipal forest committees, and planting—the three dominant aspects of the movement's plantation phase.<sup>16</sup> Often donations of land also spurred towns to action. In Woodstock, for example, Governor Franklin Billings, who had been appointed chair of the town forest committee in 1926, donated 22 acres on the slopes of Mount Tom the following year; 5,000 Norway spruce were transplanted to the land shortly thereafter.

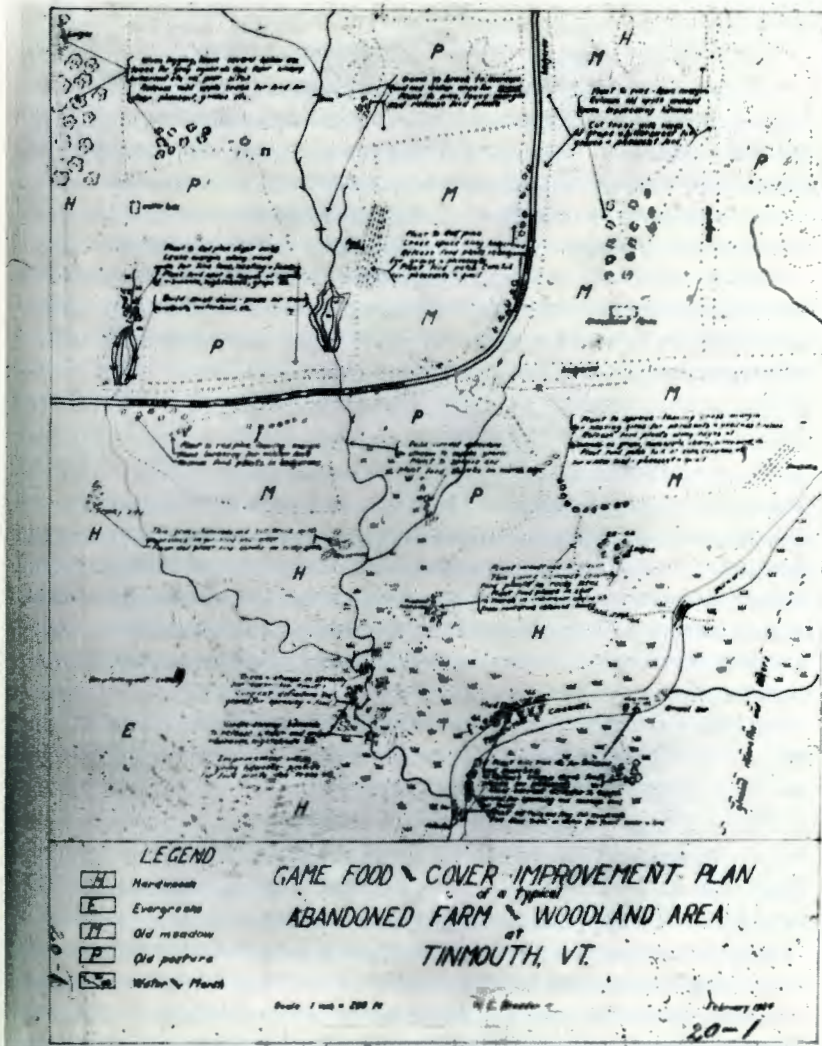
Among Vermont towns, tax rates differ substantially, and it is not unusual to find municipal forests owned by one town but located in another. Possibly reluctant to remove property from its tax rolls, Jamaica refused a gift of more than 600 acres from Helen and Scott Nearing, authors of *Living the Good Life*, the bible for the 1960s back-to-the-land generation. The Nearings, who stipulated that their land be used as a town forest, turned next to Winhall, which accepted the property in 1950 and began harvesting timber on one quarter of the lot. Proceeds of \$5,000 more than compensated for taxes of \$190.08 owed to Jamaica. Towns frequently own more than one parcel of land devoted to municipal forestry. Bennington, in addition to three parcels within the town, classified separate lots in Woodford, Pownal, and Shaftsbury. Nor are state boundaries an insurmountable barrier, for both North Adams and Williamstown, Massachusetts, own watershed forests in Pownal.<sup>17</sup>

In New England the town forest movement began to change by 1930, when it became apparent that towns were neglecting their young plantations. Emphasis shifted from planting to weeding, thinning, and other management practices, and predictions about timber yields began to receive closer scrutiny. An assortment of administrative and political problems surfaced, including fickle town governments, lax record keeping, and competing local interests. In Massachusetts this shift coincided with the inauguration of annual conferences for town forest committees sponsored by the MFA and held unfailingly until the 1960s. These meetings provided an effective forum for demonstrating the need for silvicultural practices.

Increased attention to management is not as evident in other New England states, and few similar conferences convened outside Massachusetts. Yet Vermont's state foresters set a steady pace and tended local woodlands consistently. A 1933 working plan for Proctor's municipal forest by Wilbur E. Bradder is a good example. Bradder, a district forester, delineated compartments on a forest type map, noting tree composition, age, history, and recommended treatments for each sector. He also encouraged retention of food trees such as thornapple and cherry to sustain wildlife, revealing forestry's expanding role in shaping a cultural landscape of conservation. Bradder provided similar emphasis on wildlife



"Key Map for the Management Plan of the Proctor Town Forest," by W. E. Bradder. March 18, 1933. Vermont Department of Forests, Parks, and Recreation, Waterbury.



"Game Food and Cover Improvement Plan of a Typical Abandoned Farm and Woodland Area at Tinmouth, Vt.," by W. E. Bradder. February 1934. Microfilm, Vermont Department of Public Records, Middlesex.



management in his superbly detailed "Game Food and Cover Improvement Plan of a Typical Abandoned Farm and Woodland Area at Tinmouth, Vt.," which he limned in 1934. Although the MFA's Reynolds and others touted wildlife conservation as one of the many benefits created by town forests, Bradder's work remains a unique contribution to the movement.<sup>18</sup>

Prodded by President Franklin Roosevelt and his friend Nelson Brown, a faculty member at the New York State College of Forestry in Syracuse, the U.S. Forest Service launched a formal community forest program in 1938. Program policies emphasized education and for a brief period generated new enthusiasm for local forestry. Many New England town forests were cited as models of forestry management, and a 1939 *Field Handbook of Community Forests* spotlighted watershed forests owned by Rutland and Essex Junction, crediting state forester Perry Merrill for his contribution. Formation of the Society of American Foresters (SAF) Committee on Community Forestry in 1941 was linked to this expanding national interest and proved especially significant to Vermont. That committee, whose members included Reynolds, Brown, and U.S. forester George Duthie, urged active state support and full-time community foresters, advice observed more closely in Vermont than in other New England states. At the same time, the committee adopted a guarded posture regarding economic returns and instead emphasized multiple public benefits through woodland conservation. The dissolution of both the forest service program in 1949 and the SAF committee a few years later, largely because of skepticism about the ability of communities to cultivate crops of timber, foretold the eventual decline of the municipal forest movement.<sup>19</sup>

By 1950 nearly seventy Vermont towns had established municipal forests. In 1956 Eugene Keenan became the state's first municipal forester and was assigned to towns in the state's southern half. Two years later E. Warner Shedd emerged as Keenan's counterpart in northern regions, and in its biennial report for 1957-1958, the Department of Forests and Parks announced its goal to establish a municipal forest in every Vermont town. By 1962 the count had risen to 104 towns, with more than 37,000 acres devoted to forestry management. Included among these were several fire district forests, created to subsidize the costs of fire companies chartered by towns in a manner similar to water utilities. In a slightly different vein, more than 500 acres donated to the Proctor Free Library in 1943 and mapped by F. J. Olney, a surveyor for the Proctor Marble Company, were later classified as a municipal forest. The state's forestry department awarded certificates of good forestry practices to Bethel and Vergennes in 1966. The number of municipal forests in Vermont climbed

steadily, eventually approaching 150 if one distinguishes parcels owned by towns from those owned by municipalities, villages, school districts, fire districts, or water utilities within those towns. For instance, separate parcels in Hardwick are owned by the town, the school district, the fire district, and the village.<sup>20</sup>

Despite active promotion of municipal forests in Vermont, circumstances were working against the movement. Forestry requires patience, and the return on dollars invested is a long-term proposition. Town select boards were often reluctant to spend money on silviculture, so crucial to the production of salable timber. Poor-quality stumpage, the legacy of clear-cuts or abandoned land, plagued many municipal forests, and loggers often loathed to work these marginal lots. Complex economics of the timber industry were also a factor, and few New England towns achieved consistent success in commercial forestry.

Ironically, a 1957 law enabling Massachusetts towns to create conservation commissions also augured the movement's demise. During the next half decade, more Massachusetts communities formed conservation commissions than had created town forest committees during the preceding half century. In local patches of wildland, the public found a ready outlet for concern about incessant, overwhelming, unfathomable change in the environment. Unlike town forests, conservation lands demanded neither consistent management nor patient vision, and their popularity was nearly instantaneous. By 1965 each New England state except Vermont had passed similar legislation, all but extinguishing any lingering interest in town forests. Vermont finally followed in 1977, and its once vigorous municipal forest program lapsed soon after.<sup>21</sup>

Despite its mediocre record in the field of commercial timber production, the municipal forest movement in Vermont (and in New Hampshire and Massachusetts, too) made valuable contributions. Most significant was its huge success at encouraging communities to set aside tracts of woodland for public use. In truth, the movement inaugurated a trend that has scarcely slackened and that today is being carried forward by conservation commissions and community land trusts. These events have contributed greatly to the evolution of community structure in New England. Municipal forests have also witnessed the maturing of a woodland stewardship manifest in New England towns from their seventeenth-century origins. During the twentieth century, particularly its second half, the utilitarian functions that characterized eighteenth- and nineteenth-century communal woodlands were replaced by a modern ethic emphasizing recreational use and ecosystem protection. Paths in town forests span that important period, offering unique views of this changing ethic and providing timely, backyard reminders that timber, recreation, and

ecosystem stewardship all can prosper in one place—reminders, too, about the value of observing history in our environment.

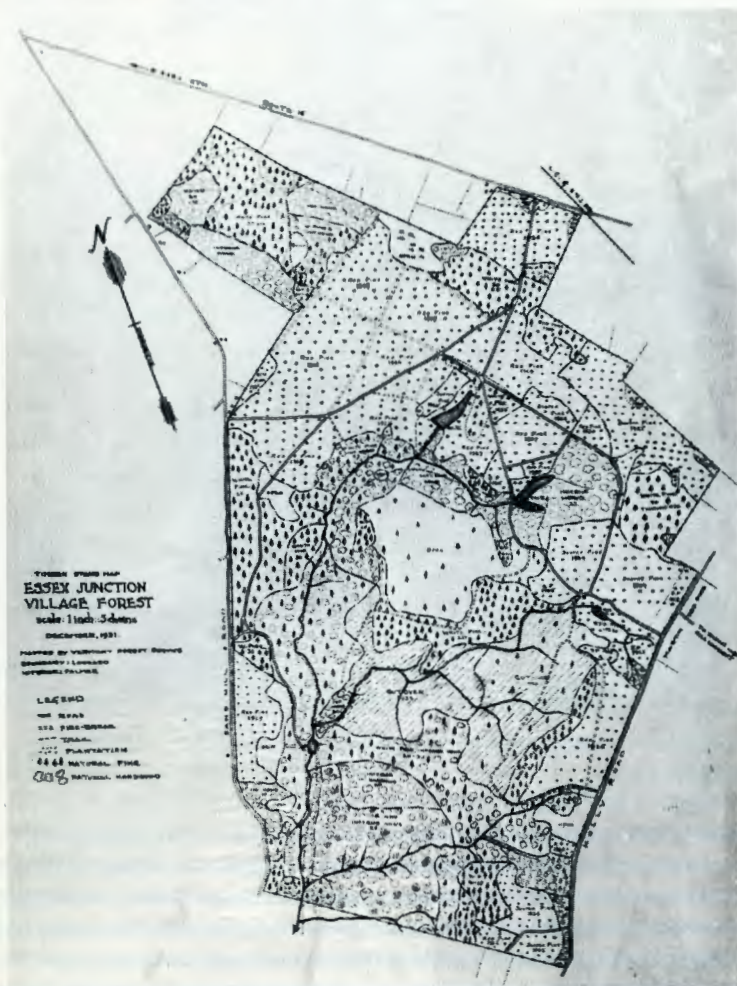
#### WATERSHED PLANTATIONS

A separate category of local woodlands, watershed forests, emerged during the latter part of the nineteenth century and early years of the twentieth century. Their origins coincided with the development of professional forestry and with an improved understanding about the importance of forest cover to a balanced ecology. Attention specifically focused on the mechanical and hydrological conditions of soil that directly affect water supply and distribution. During a period that began shortly after the Civil War and continued until the onset of World War I, a remarkable number of New England cities and villages built reservoirs and purchased surrounding lands to protect surface water against pollution from agriculture and industry.<sup>22</sup>

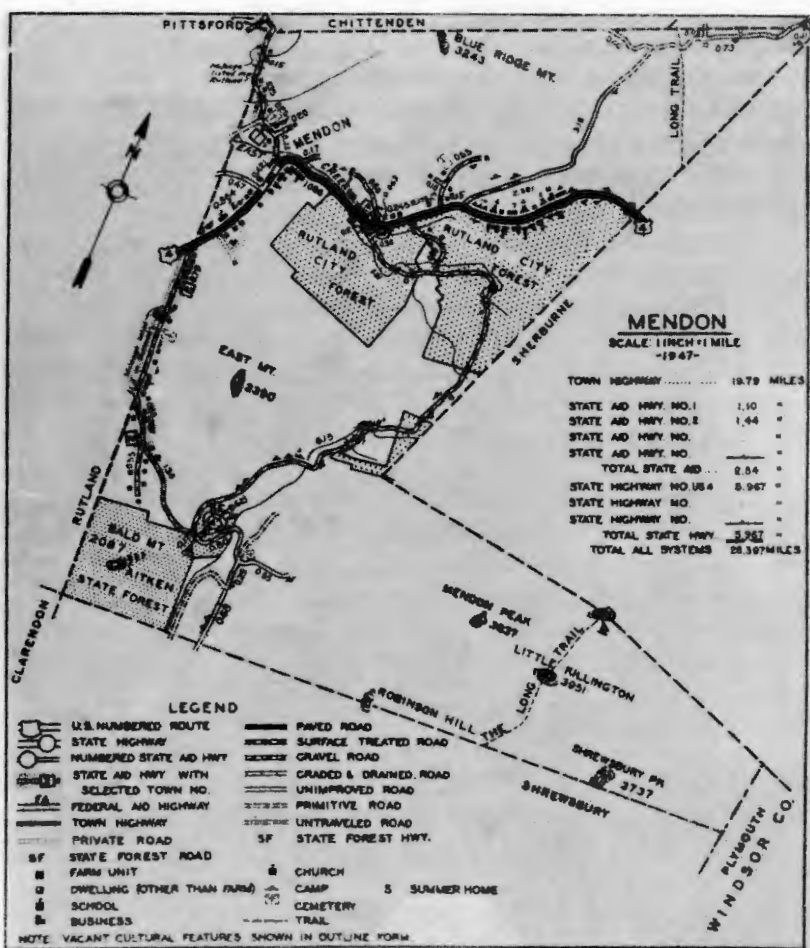
The New England Water Works Association, founded in 1882, developed into a professional organization for municipal engineers, and the pages of its quarterly journal contain a scholarly record of forestry as a component of water supply management. Communities began to practice exacting stewardship by necessity, and commercial productivity benefited as a result. Watershed plantations also became a functional part of community structure. Despite their separate origins, watershed and municipal forestry soon formed an alliance. Advocates of municipal forests were ardent suitors of water utilities, and the match often worked. Problems that plagued town forests were blessedly absent on watersheds: land acquisition was obligatory, management diligent, record keeping proficient, and administration a step or two removed from the sometimes uneven flow of municipal government. Finally, land areas were larger, aiding the economies of timber production.<sup>23</sup>

Vermont's watershed forests complemented the state's municipal forest movement, in several cases becoming models of local forestry management. The city of Essex Junction began acquisition of lands surrounding two springs near the village of Essex Center before 1900 and at the urging of a local lawyer, Allen Martin, implemented a forestation plan in 1923. By 1930 more than 400,000 seedlings, mostly scotch, red, and white pine, were thriving on the forest's 750 acres of sandy soil. Sales of lumber and cordwood generated revenues exceeding \$12,000. A meticulously detailed timber-stand map was crafted in 1931 by Charles Lockard and Huntley Palmer for the state's forest service. The town steadily invested in its resource, adding acreage and new plantings as well as a fire tower; a 1954 inventory valued the timber at more than \$35,000. An enthusiastic public toured the plantation and its two reservoirs, Indian

River and Saxon Hill, during Forest Festival Week in 1960; but problems soon began to surface. Property taxes the city paid to the town of Essex, the cost of repairing deteriorated waterlines, and debt to bondholders all proved too expensive, and the city joined the Champlain Water District in 1978. Although the forest was sold for private development, a portion of the land was kept open for public use, and it remains under forestry management today.<sup>24</sup>



*"Timber Stand Map, Essex Junction Village Forest," by Charles Lockard and Huntley Palmer. December 1931. Vermont Department of Forests, Parks, and Recreation, Waterbury.*



*Rutland City Forest. Unsigned, 1947. Rutland City Department of Engineering.*

Rutland's city forest had a similar history of careful management. As early as 1881, the city began purchasing woodlots and farms to protect its water supplies. The most active period of acquisition and planting began after 1910, and by 1930 the city had transplanted more than half a million seedlings, many of them Norway spruce and pine, on 3,500 acres. Most of the land is situated in the neighboring town of Mendon, where it protects the drainage basin of Mendon Brook below Mount Killington. Over the years a number of individuals made key contributions. Francis Tracy and his son, E. L. Tracy, made the success of Rutland's

forest a family matter, the former as superintendent of the water utility beginning in 1917 and the latter as commissioner of public works in 1932. State forester Perry Merrill prepared a management plan in 1927, and Wilbur Bradder added his light hand with a forest type map penned in 1933 and a memorandum recommending that flowering shrubs as well as fruit- and nut-bearing trees be sustained to improve the forest's appearance and provide food for wildlife. During the Great Depression, Works Progress Administration laborers provided timber-stand improvement, their thinnings becoming fuelwood for the city's poor. Almost forty years later municipal forester Eugene Keenan tutored sixth-grade pupils about the importance of watershed protection and with their assistance seeded a protective covering of oats on cleared land.<sup>25</sup>

Although Rutland's forest eventually grew to 4,000 acres, it is not the state's largest. That distinction goes to the Morrisville village forest, which encompasses more than 5,000 acres and is managed by the Morrisville Water and Light Department. Most of the property, including numerous lease-land parcels, was acquired in 1944 and surrounds the Green River Reservoir in the towns of Eden and Hyde Park. A mammoth dam completed in 1947 created that reservoir, and the water and light commissioners finally designated the land as a municipal forest in 1959.

At the same time, however, commissioners reaffirmed a 1952 timber lease with a local woodsman, Justus B. Wheeler, for the management of logging on a parcel known as Bugbee Springs. This incident set the stage for disputes among Wheeler, county forester Arlo Sterner, and municipal forester E. Warner Shedd about forestry practices and stumpage prices. In 1961 company superintendent Willard K. Sanders issued a Solomon-like letter dividing the forest and, to Shedd's chagrin, assigning separate management tasks to Wheeler and government foresters. Those who work the Northern Forest are an independent lot, and stories such as this nourish the roots of local fable. Anecdotal value aside, this episode illustrates one of the many potential causes for inconsistent management of municipal forests, a problem that plagued the movement in many parts of New England. Several years later, turmoil again swirled around the light company when it challenged the tax assessment of its property in Hyde Park, a contest that reached the Vermont Supreme Court three times. Timber management continues today, and technical assistance has been provided by a consulting forester, Warren "Jersey" Drown.<sup>26</sup>

As watershed forestry matured in New England, specialized practices began to develop in response to economic pressures and changes in technology. Planting with coniferous types was eventually considered necessary only along strips bordering reservoirs; hardwoods on remaining

lands could be cultivated naturally without the expense of seeding. Dense forests gave way to partially open conditions that allowed more snow and rain to reach the ground, thus increasing water yield. Lumbering slash could be left on the ground, improving moisture content and soil porosity and decreasing runoff. In recent years computer models have been developed to monitor stream and overland flow, making possible the quantification of subtle ecological phenomena such as evaporation from tree canopies. The result is an ability to conduct intense management of compartments. At the same time federal requirements for water quality have imposed new burdens on utility companies, and advances in water treatment technology have in some cases made watershed forests obsolete. It is no surprise that several towns have opted to sell valuable waterfront property. Communities that are more forward-looking have instead converted these reserves to public lands. Elsewhere, however, protection of surface water still reduces the need for expensive, repeated purification, and watershed forests remain functional.<sup>27</sup>

#### FOREST PARKS

Forest parks, occasionally referred to simply as reservations, are a distinct type of communal woodland that began to appear in New England toward the close of the nineteenth century. The popularization of numerous campaigns—conservation, professional forestry, emphasis on the role of forests in a balanced ecology, celebration of Arbor Day, creation of national parks and forests, cognizance of wilderness values, hiking clubs—all stimulated forest recreation and fostered community initiative. Large reservations acquired by Boston's Metropolitan Planning Commission, notably Blue Hills, Middlesex Fells, and Stony Brook, became particularly influential after 1894. In Massachusetts several important examples (Lynn Woods, Prospect Hill in Waltham, and Forest Park in Springfield) gained public status well before regional reserves; others (Andover's Indian Ridge, for instance) followed shortly thereafter.

Trends in urban park planning were also important. Inspired by New York's Central Park, cities began introducing natural landscapes in counterpoint to their overbuilt and congested environments. However, most park planners, Frederick Law Olmsted foremost among them, regarded untamed woods as impractical for cities and opted instead for more manicured sylvan effects. Toward the close of the nineteenth century, however, America's enchantment with the picturesque had begun to fade and had turned energetically to the formal park planning associated with the City Beautiful movement and urban reform. These trends fostered interest in an array of civic projects, including stewardship of local woodlands. Ironically, the wild character of forest parks, unrestrained by ornamental

landscaping, provided a more authentic model for the romantic themes that had inspired much earlier park planning.<sup>28</sup>

In their purest form forest parks are patches of woodland with little more than simple footpaths to entice human exploration. Split-log benches at scenic overlooks, an occasional rustic shelter, and summit observation towers are common features. Entrance monuments, often rubblestone, are especially important pieces that identify period of origin as well as passage and also offer occasion for interpretation. In some locales, typically large urban centers, forest parks have succumbed to more extensive improvements such as playing fields, grandstands, formal gardens, and even zoos, golf courses, and ski runs. Such features have been justified as a means of encouraging public recreation, one of the tenets of reform-era park planning and admittedly a worthy goal. At the same time, however, such changes are often inconsistent with the wild nature of forest parks and diminish their physical integrity. Communities remote from the swell of human populations have achieved a casual balance by confining buildings such as pavilions or bandstands to a single area, often centrally located, and leaving remaining lands to the sway of forest trees.

Addressing the annual convention of the American Institute of Park Executives in 1921, Filibert Roth, dean of the University of Michigan's forestry school, observed that "the forest does more and does it better than the park" and for the same or less money. Titling his speech "Woods as Parks," Roth offered sage advice on separating recreational functions within forest parks:

Let the people decide, and wherever the mass of visitors go, there fit the woods to the people, while in the rest, let the woods grow timber and serve as haunt of the few, the real lovers of the woods.

By all means preserve the old, the large, the remarkable, the instructive; old oaks, rare hickories, fine clumps of hawthorn, and even blue beech, ironwood and flowering dogwood all should be allowed a little space. Where school children are taken in classes, leave rotten logs, dead stubs, etc., and let them see the wild wood, truly wild. This requires a few acres of land sacrificed to the visitor—it pays big, more than any special growth of timber.<sup>29</sup>

Although recreation is a theme that dominates this distinct category of communal forest, there is notable variety in period of origin and type and extent of improvements. The genesis of many parks is linked to the philanthropy of individuals who desired to preserve an especially scenic spot of land. Moreover, benefactors' often unique visions for these parks have contributed handily to the patchwork of conservation ethics that joins town to town in New England. Battell Woods in Middlebury, Vermont, is a particularly good example. Joseph Battell, who donated lands that



now compose a large part of Camel's Hump State Park, also bequeathed several parcels to his hometown. His 1901 will specified that the property be managed with a view to preserving trees as far as compatible with the free use of the land as a public park and recreation ground. A preamble in Battell's will evinces with clarity the sense of forest stewardship that had begun to surface in a great many communities, for he writes of

being impressed with events attending the extensive destruction of the original mountain forests of our country, and being mindful of the benefits that will accrue to, and the pleasures that will be enjoyed by, the citizens of the State of Vermont and the visitors within her borders, from the preservation of a considerable tract of mountain forest in its origin and primeval state.<sup>30</sup>

Today Battell Woods is a nature preserve with improvements limited to narrow, foliage-bordered footpaths that wind beneath a canopy of white pine and sprout maples. A small, weathered wooden sign quietly announces the park's entrance.

Montpelier's Hubbard Park is another noteworthy example but one that accommodates recreation in a variety of ways and serves, eminently so, as a sylvan backdrop to the state's capital city. The park's original acreage was donated to the city by John E. Hubbard, who specified that the property be used as a park and requested the appointment of commissioners. Although Hubbard's will left no express requirement to create a woodland reserve, park commissioners have allowed forest cover to grow dominant on land that was mostly unused pasture at the time of Hubbard's bequest. As in many of New England's forest parks, however, such policy may have been as much the product of frugality as any other factor.

Park commissioners hired landscape architect Dana F. Dow to prepare a plan, and his accompanying report called for features typical of park planning for the period—entrance gates of weathered stone, curvilinear roadways, a ramble bordered by ornamental planting similar to that in Harvard's Arnold Arboretum near Boston, rustic summer houses and bridges, and an observation tower he considered to be essential. In fact, Dow's report displays a postcard of the Norumbega Tower in Newton, Massachusetts, revealing the influence Massachusetts had on park planning in more remote communities. At the same time Dow conceded the boundaries of his commission, suggesting informal, simple treatments due to limited funds and advising that walkways should resemble mountain paths.<sup>31</sup>

City officials proved to be even more thrifty than Dow anticipated, and most of his proposals were not adopted. Today roadways and several clearings do vaguely adhere to the original plan, and stone monuments mark entrance into the park, a feature that Dow regarded as particularly



*Plan for Hubbard Park, Montpelier, by Dana F. Dow. No date (1907?). Vermont Historical Society.*

important. Plantations of red pine and Norway spruce began in 1906 and 1909, and a hemlock grove—in Dow's words the park's finest natural feature—remains. Benches were distributed along walks and drives and small garden plots made available for rent. A castellated observation tower, begun in 1916 with fieldstone amassed from walls that bend across the park, was finally completed in 1931. In more recent years a physical fitness course has been added, and well-worn hiking paths become cross-country ski trails in winter. Primitive shelters and stone fireplaces anchor secluded

picnic areas, and a sledding hill comes alive soon after snow falls. Forest cover, however, remains the park's dominant (and least expensive) attribute. In 1992 horses were used for logging mature pine, and the public was invited to observe.<sup>32</sup>

Recreation was also important in town forests, and the town forest movement helped popularize woods as parks. In fact town forests qualify as a special subset of forest parks in many locales. A marked increase in the acquisition of community woodland, accompanied by technical assistance from government foresters who had become adept at working with town forest committees, helped promote public forests as valuable parts of community structure. On occasion, too, the problems that hindered commercial production of timber in town forests allowed recreational functions to assume a central role. At the same time, many communities intentionally placed their forests a cautious distance from timber production.

Paradise Park, Windsor's town forest, illustrates the subtle affiliation that more than occasionally developed between town forests and forest parks. A large part of the 115-acre tract, together with spring rights, was purchased by the town in 1943 from the estate of Allen W. Everts, and the park now functions simultaneously as a watershed reserve, recreation area, and town forest. Administrators of Evert's estate required that his land be used as a public park and authorized forestry management, but they specifically prohibited the cutting of timber for commercial sale.<sup>33</sup>

A series of management plans for Windsor's park has guided town officials. The first, prepared in 1961 by Eugene Keenan, called for optimum forest growth through sustained-yield management. A park committee was finally established in 1979, and a ten-year management plan was completed two years later; a timber sale was conducted the following year. The park, which rises above Runnymede Pond, is situated within both view and a short walk of the village center. Simple benches strategically overlook a stream as it plummets into a steep ravine. Footpaths converge at a small glade with a single log shelter and picnic table beneath a towering white pine. Recreational activities take place with a minimum of disturbance to the forest's primitive qualities, and interpretation of the park as a forest is unmistakable. Indeed by most standards Paradise Park is a model for forest parks throughout New England.<sup>34</sup>



From their origins Vermont communities have been quiet stewards of forests that today peaceably accommodate wildlife habitat, protection of water supplies, cultivation of timber, ecological study, and myriad human endeavor in the guise of recreation. Ample are the rewards of this

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cultural landscape of collaboration. In the Calais town forest, for instance, mature timber and low-grade wood were recently culled and the proceeds—more than \$16,000—awarded to the town's conservation fund. Yet potential return surpasses mundane profit. The aged, contentious debate about use and ownership of New England's Northern Forest has been divisive. All the while the region's towns have fostered an unpretentious model that offers long-sought common ground. Whether public land, municipal forest, watershed plantation, or forest park, these woodlands allow communities to participate in the debate and to counter policy (government and private alike) that can sometimes be heavy-handed. Reynolds and others who were active in the movement for town forests made similar suggestions at the beginning of this century, and their arguments are as relevant today as then.

The timeliness of this historical argument leads to a concluding observation point, one with vistas that span time as much as distance. Com-



*Town hall and town forest. Calais, Vermont, 1990. Photograph by Robert L. McCullough.*

munal forests thrive beneath a canopy of natural and cultural history, intermingled to the extent that distinctions become unimportant. In truth, no better examples of such a blending exist. Knowledge of the commercial properties of tree species—and the historical significance of these properties to a society built with wood—is no less valuable to our cultural identity than is cognizance of the relationship between forests and ecology. Each provides essential fuel for more profound understanding. The particular beauty of communal forests lies in their accessibility, a place to keep history and nature part of our everyday lives. They are at once an immediate sanctuary for the weary in spirit and an easy jaunt for the light of foot.

#### NOTES

<sup>1</sup> Florence M. Woodard, *The Town Proprietors in Vermont: The New England Town Proprietorship in Decline* (New York: AMS Press, 1968), 133–135.

<sup>2</sup> *Lampson v. New Haven*, 2 Vt. 14 (1829). For a general review of Vermont's lease lands, see Walter T. Bogart, *The Vermont Lease Lands* (Montpelier: Vermont Historical Society, 1950).

<sup>3</sup> *Lemington v. Stevens*, 48 Vt. 38 (1875). See also Vermont Public Laws (V.P.L.) No. 65 (1935) and No. 56 (1937) and Bogart, *Vermont Lease Lands*. For West Windsor, see forest type map titled "Cross and Glebe Lots, Town of West Windsor, West Windsor, Vermont," by Vermont Resource Management, 1985, records of the West Windsor town clerk. Municipal administration of lease lands is now governed by 24 Vermont Statutes Annotated (V.S.A.), secs. 2401–2408.

<sup>4</sup> For municipal forest certifications by various towns, see letter of Arlington select board, 10 April 1962; letter of Bloomfield select board, March 1963; and letter of Rupert select board 24 March 1955; all in the records of the Vermont Department of Forests, Parks, and Recreation, Pittsford. Forester William Hall has been active in Essex Junction's forest, including management of timber on Saxon Hill. His records are located at the Vermont Department of Forests, Parks, and Recreation in Essex.

For Cabot, see *Green Mountain State Forest News* (October 1926), 4. For Huntington, see survey by Ronald L. LaRose, April 1978 to December 1982, plan book 1, 107, Huntington town clerk's office. For Lemington, see letter of R. Ben Kinsey to Robert Hoffman, 4 December 1967, records of the Vermont Department of Forests, Parks, and Recreation, Morrisville. For Morrisville, see records of the Morrisville Water and Light Department.

Pomfret, too, may have assigned school lease lands to municipal forestry, but land and forestry records are incomplete. See quitclaim deed from Ralph A. Howard and Ernest S. Howard to the Pomfret Town School District, dated 7 January 1943, recorded 27 January 1943 in book 26 of deeds, p. 367, records of the Pomfret town clerk. It is not clear whether this land was the subject of an undated "Forest Management Plan for Pomfret Municipal Forest" by Vermont Department of Forests and Parks, probably attributable to Eugene Keenan, and "Cooperator's Woodland Record," records of the Vermont Department of Forests, Parks, and Recreation, Springfield.

The ownership history of other nearby land in Pomfret, conveyed by the town to the federal government in 1984 for the Appalachian Trail (see deed dated 25 April 1984, recorded 11 May 1984, in book 34, pp. 161–162), might also be reviewed. The town's title is traceable to a deed from Daniel Howard to Lucinda M. Parker and John D. Parker dated 20 August 1868, recorded 25 December 1868 in book 15 of deeds, p. 408. Howard's land included the west half of lot 40 in the second proprietor's division (see deed dated 16 June 1824, recorded 16 June 1824, in book 7 of deeds, pp. 62–63), and may also have included adjoining lot 39, designated as a school lot. However, Howard's deed to the Parkers does not refer to the origins of his title, and his land does not appear to be near the municipal forest.

<sup>5</sup> Deed from Zebulon Lyon and Hannah Lyon to the trustees of Royalton Academy, dated 21 April 1817, recorded 14 January 1818, and lease by the trustees of Royalton Academy dated 15 January 1818, recorded 14 January 1818, both in vol. 6 of deeds, pp. 105, 107, records of the Pomfret town clerk. See also Edward D. Andrews, "The County Grammar Schools and Academies of Vermont," in *Proceedings of the Vermont Historical Society* 4 (1936): 117–211, and records of Royalton Academy, Vermont Historical Society.

For Wilmington, see letter from Wilmington school directors, 7 April 1961, records of the Vermont Department of Forests, Parks, and Recreation, Springfield.

<sup>6</sup> Warranty deed dated 19 January 1900, recorded 7 February 1900, book 7, pp. 551-552, Westmore town clerk. See also letter from James E. Hildebrandt to John E. Nutting, 24 August 1979, records of the Vermont Conference of the United Church of Christ, Burlington, and T. H. Root, "Westmore Church Forest," *Green Mountain State Forest News* 6 (June 1930): 2.

<sup>7</sup> See "Resolution" by Westmore Church, 7 August 1904, accepted by the Vermont Domestic Missionary Society by vote of the executive committee of the board of directors, 7 August 1904; letter from Thomas H. Sherrard, U.S. Bureau of Forestry, to John T. Ritchie, 11 October 1904; letter of agreement between the First Congregational Church of Westmore and H. E. Taylor, 8 August 1934; and letter of John E. Nutting to James E. Hildebrandt, 10 October 1979; all in the records of the Vermont Conference of the United Church of Christ, Burlington.

<sup>8</sup> For Rochester, see survey titled "Property of the Town of Rochester. Town Farm Woodlot," September 1972, by Norman R. Smith, records of the Rochester town clerk, and letter of Rochester select board, 29 December 1972, records of the Vermont Department of Forests, Parks, and Recreation, Springfield.

For Middlebury, see town reports of 1868, 16; 1895, 21; 1896, 21; 1904-1905, 24-25; and 1914-1915, 22-23. For other examples, see Calais, where butter was usually the largest income producer; the 880.5 pounds sold in 1877 for \$249 is an average amount. Calais town reports 1877, 4; 1885, 6; and 1888, 13. In Rockingham yearly sales of milk to Boston Dairy Company yielded substantial income: \$489.26 in 1896. Rockingham town report 1896, 10.

For sales of wood products in Calais, see town reports of 1883, 6; 1884, 6; 1885, 6; 1886, 6; 1888, 13; 1889, 10-11; 1890, 10-11; 1893, 10-11; 1894, 8; 1905, 18; 1914, 11; and 1915, 9.

<sup>9</sup> Steven R. Hoffbeck, "Remember the Poor" (Galatians 2:10): Poor Farms in Vermont," *Vermont History* 57 (fall 1987): 226-240.

For various municipal forest certifications, see letter by Calais select board, 28 March 1955, and letter by Danville select board, 27 August 1960, both in records of the Vermont Department of Forests, Parks, and Recreation, Pittsford; letter by Rockingham select board, 29 January 1964, and letter of James E. Wilkinson Jr. to A. F. Heitmann, 25 March 1964, records of the Vermont Department of Forests, Parks, and Recreation, Springfield; and letter by Woodstock select board, 2 September 1961, records of the Vermont Department of Forests, Parks, and Recreation, Springfield. See also "Lost Woodstock Woods Are Not Lost After All," in *Rutland Daily Herald*, 17 October 1968.

For St. Johnsbury, see Clare B. Johnson, *I See by the Paper . . . An Informal History of St. Johnsbury* (St. Johnsbury, Vt.: Cowles Press, 1987).

See also "Report of Town Forester," *Green Mountain State Forest News* 3 (April 1926) (Calais), and "Municipal Forests," *Green Mountain State Forest News* 4 (October 1926) (St. Johnsbury and Thetford).

<sup>10</sup> Calais town reports of 1926, 19-20; 1927, 11-12; and 1928, 11-12. In 1927 labor costs for cutting, hauling, milling, and planting reduced the town's profit to about \$200.

<sup>11</sup> Bernhard E. Fernow, "Communal Forests," *Garden and Forest* 3 (16 July 1890): 349.

<sup>12</sup> In 1882 Massachusetts became the first New England state to enact such legislation; see Mass. Laws ch. 255, secs. 1-8 (1882). However, that law placed title to lands in the state's name to be held in trust; management responsibilities were also given to the state. A 1913 amendment eliminated these requirements; see Mass. Laws ch. 564, secs. 1-7 (1913). See also Laws of New Hampshire ch. 27, secs. 1-4 (1913); V.P.L. no. 24, secs. 1-5 (1915); Public Laws of Maine ch. 33 (1927); Public Laws of Rhode Island ch. 1389 (1929); and Public Laws of Connecticut supp. sec. 152e (1939).

<sup>13</sup> V.P.L. ch. 26, sec. 477 (1917). "Municipal Forests," *Green Mountain State Forest News* (October 1926): 4. For Sheffield, see Kemp R. Flint, "Forestry as a Municipal Undertaking," *Vermont Review* 2 (July-August 1927): 41-44, and *Sheffield Annual Reports* (1921-1922): 5, for listing of town inventory showing Robbins farm, and (1926): 7, 18, for select board's acquisition order pertaining to second farm and for amounts paid to the Department of Forests and Parks.

<sup>14</sup> Massachusetts Forestry Association, "Why Massachusetts Needs Town Forests," *Bulletin* 132 (October 1921).

<sup>15</sup> For comparisons of plantings, see New Hampshire Forestry Commission, *Biennial Report* (1929-1930): 76-77, Vermont Commissioner of Forestry, *Biennial Report* (30 June 1932), and "Municipal Forests," *Green Mountain State Forest News* 6 (February 1930): 2.

For Vermont's municipal forest legislation, see Public Acts (P.A.) no. 86 (1945), P.A. no. 74 (1951), and P.A. no. 253 (1977 adj. sess.). See in general 10 V.S.A., secs. 2651-2655. For appointment of municipal foresters, see Vermont Department of Forests and Parks, "Municipal Forests," in *Biennial Report* (1957-1958): 26-28.

<sup>16</sup> For offer of seedlings by Vermont Forestry Association, see Flint, "Forestry as a Municipal Undertaking."

<sup>17</sup> For Woodstock, see "Town Forests," *Green Mountain State Forest News* (April 1926): 2; "Municipal Forests of Vermont," *Green Mountain State Forest News* (July 1927): 3; Vermont Commis-

sioner of Forestry, *Biennial Report* (June 30, 1926): 39; and letter of Woodstock select board, 2 September 1961, records of the Vermont Department of Forests, Parks, and Recreation, Springfield.

For Winhall, see letter of Scott Nearing to David Barton, 29 November 1950, and letter of David C. Barton to Perry Merrill, 8 December 1950, both in the records of the Vermont Department of Forests, Parks, and Recreation, Pittsford. Written records of the Nearing's offer to Jamaica, if they exist, are well concealed. At the time, minutes of select board meetings were not taken. However, the story is well supported by oral history. Former longtime selectman Clifton Landman, whose father, Raymond Landman, was also a selectman, believes the select board declined the gift because the town already owned extensive lands acquired through tax forfeiture.

For certifications of Bennington's municipal forests, see undated memorandum by Vermont Department of Forests and Parks (Woodford lot), letter by Bennington select board, 1 March 1955 (Pownal lot), and letter of Jim White to Mark Halloran, 2 May 1984 (Shaftsbury lot), all in the records of the Vermont Department of Forests, Parks, and Recreation, Barre and Bennington offices.

For municipal forests owned by North Adams and Williamstown in the town of Pownal, see handwritten list titled "Ownership Class *Municipal*," 2 August 1982, records of the Vermont Department of Forests, Parks, and Recreation, Waterbury, and tax listings for the town of Pownal. The tract owned by North Adams is 3,713 acres and that owned by Williamstown 391 acres.

See 32 V.S.A., sec. 3659 for law governing taxation of property owned by one town but located in another.

<sup>18</sup> For Proctor, see worksheets titled "Forest Description and Management Sheet," for compartments 1-10, records of the Vermont Department of Forests, Parks, and Recreation, Pittsford.

<sup>19</sup> U.S. Forest Service, *Field Handbook of Community Forests* (Washington, D.C.: U.S. Department of Agriculture, Forest Service, 1939); and Nelson C. Brown, *Community Forests* (Washington, D.C.: U.S. Department of Agriculture, Forest Service, 1939), with a foreword by Franklin D. Roosevelt. Roosevelt's contribution was reprinted as a frontispiece in *Conservation* 6 (January-February 1940).

For Society of American Foresters, see various articles under the title "Reports of Committee on Community Forests," in the *Journal of Forestry*, for example, the issue of February 1942: 112-117.

<sup>20</sup> For progress in Vermont's municipal forests, see Vermont Department of Forests and Parks, "Municipal Forests," *Biennial Report* (1957-1958): 26-28 and (1961-1962): 20-24, and handwritten list titled "Ownership Class *Municipal*," 2 August 1982, records of the Vermont Department of Forests, Parks, and Recreation, Waterbury.

For Proctor, see letter of the Trustees of the Proctor Free Library, 26 January 1974, records of the Vermont Department of Forests, Parks, and Recreation, Pittsford, and survey titled "Vermont Marble Co., Proctor, Vt., Map of Library Property," by F. J. Olney in 1943, records of the Vermont Marble Company, Proctor.

For Bethel and Vergennes, see Eugene E. Keenan, "Good Forestry Practices Awards for Municipal Forests," undated typewritten manuscript, records of the Vermont Department of Forests, Parks, and Recreation, Pittsford.

For an example of a fire district forest, see "Forest Management Plan for South Royalton Municipal Forest Fire District #1, South Royalton, Vermont" (probably attributable to Eugene Keenan, undated), records of the Vermont Department of Forests, Parks, and Recreation, Springfield.

<sup>21</sup> Acts and Resolves of Massachusetts, ch. 223 (1957), and V.P.L. no. 250 (1977 adj. sess.). For the close of Vermont's municipal forest program, see memorandum from Roy S. Benton to James Billings, 1 February 1979, records of the Vermont Department of Forests, Parks, and Recreation, Waterbury.

For a history of conservation commissions, see Andrew J. W. Scheffey, *Conservation Commissions in Massachusetts* (Washington, D.C.: Conservation Foundation, 1969), with a supplementary report by William J. Duddleson. See also Peter Westover and David Letterer, *Conservation Areas of Massachusetts* (n.p.: Massachusetts Society of Municipal Conservational Professionals, 1989).

<sup>22</sup> For a general discussion of the effect of forests on hydrological conditions, see Bernhard E. Fernow, "Report of Chief of Forestry Division," in *Annual Report of the Secretary of Agriculture* (Washington, D.C.: GPO, 1889); see specifically "Influence of Forests on Water Supplies," 297-330.

<sup>23</sup> For a discussion of early policies toward forestry management on watershed lands, see Edward Bryant, "Practical Forestry for Water Works," *Journal of the New England Water Works Association* 25 (June 1911): 243-246, and F. W. Rane, "The Reforestation of Watersheds for Domestic Supplies," *Journal of the New England Water Works Association* 25 (June 1911): 234-242. Rane's article was reprinted by the Massachusetts Forestry Association as an undated bulletin.

<sup>24</sup> "Municipal Forest of Essex Junction," *Green Mountain State Forest News* (March 1926): 2; "Essex Junction Village Forest Pays," *Green Mountain State Forest News* 6 (February 1930): 3; Everett Rice, "Forest Plantation Tour Guide. Chittenden County Forest Festival Week," typewritten handbill, records of the Vermont Department of Forest, Parks, and Recreation, Essex Junction; and Katherine Gregg, "Essex Junction Trustees Agree to Sell 1000 Acres," *Burlington Free Press*, 23 October 1973, 23.

For a timber-stand inventory, see unsigned document titled "Essex Junction Village Forest—November 1954 Survey," records of the Vermont Department of Forest, Parks, and Recreation, Essex Junction. For a brief history of Essex Junction's forest, see Frank R. Bent, *The History of the Town of Essex* (Essex: Essex Publishing Company, 1963): 102.

<sup>25</sup> For a review of Rutland's forest, see U.S. Forest Service, *Field Handbook of Community Forests* (Washington, D.C.: U.S. Department of Agriculture, Forest Service, 1939); "Rutland City's Valuable Forest," *Green Mountain State Forest News* (February 1930): 1; "Municipal Forest Work," *Green Mountain State Forest News* (April 1932): 2; "City Forester Sets Up Outdoor Classroom for 25 Lincoln School Youngsters Tuesday," *Rutland Daily Herald*, 29 April 1970; and *Rutland Annual Report* (1930): 86.

<sup>26</sup> Willard K. Sanders, "A Brief History of the Green River Project and the Area Covered by It," typewritten manuscript, 31 May 1951; "Sustained Yield of Timberland Agreement," between Morrisville Water and Light Department, lessor, and Justus B. Wheeler, lessee, 17 December 1952; letter from Morrisville Water and Light commissioners to Vermont Department of Forests and Parks, 18 March 1959; letter from Willard K. Sanders to A. F. Heitman, 8 November 1961; and memorandum from E. Warner Shedd to E. H. Walker, 8 November 1961. The Sanders manuscript is available from the Morrisville Water and Light Department; all other materials are public records maintained by the Vermont Department of Forests, Parks, and Recreation, Morrisville.

For case reports, see *Village of Morrisville Water and Light Department v. Town of Hyde Park*, 129 Vt. 270 (1970), 131 Vt. 590 (1973), and 134 Vt. 325 (1976). See also Ron Regan, "Municipal Forest Continues Forest Management Program," *Northern Logger and Timber Processor* 30 (May 1982): 26–27.

<sup>27</sup> Ralph Hawley, "Forestry Operations of the New Haven Water Company," *Journal of the New England Water Works Association* 61 (September 1947): 235–237, and "General Forestry Practices," *Journal of the New England Water Works Association* 66 (March 1952): 100–103.

For a discussion of computer-aided models, see Warren Archey and David R. Miller, "Water Conservation Begins in the Forest," *Journal of the New England Water Works Association* 105 (March 1991): 34–41.

<sup>28</sup> See Sylvester Baxter, "The Lynn Public Forest," *Garden and Forest* 2 (30 October 1889): 526–527; M. C. Robbins, "Forest Park, Springfield, Massachusetts," *Garden and Forest* 4 (2 December 1891): 566–567; and Susan Blake, "A Communal Forest for Andover," *Forester* 3 (1 November 1897): 132.

<sup>29</sup> Filibert Roth, "Woods as Parks," *Parks and Recreation* 5 (September–October 1921): 16–19.

<sup>30</sup> See "Last Will and Testament of Joseph Battell," dated 5 January 1901, recorded 26 October 1915; and "Decree of Distribution," dated 14 September 1916, recorded 13 October 1916, vol. 38, p. 38, records of the Middlebury town clerk. At the annual town meeting held on March 17, 1916, Middlebury accepted Battell's gift.

<sup>31</sup> See "John E. Hubbard (Will and Probate)," dated 4 August 1897, admitted to probate 19 August 1899, and recorded 1 November 1904, in book 21, pp. 229–232, records of the Montpelier town clerk. See also Dana F. Dow, "Report on Hubbard Park, Montpelier, Vt.," April 1908, in the Vermont Historical Society.

<sup>32</sup> See various reports by Montpelier's Board of Park Commissioners in *Montpelier Annual Report* 1908: 73–74; 1909: 75–76; 1910: 71–73; 1911: 70–72; and 1916: 152–154.

<sup>33</sup> Executor's deed from Effingham Everts and Prescott Everts, executors of the estate of Allen W. Everts, to the village of Windsor, 16 April 1943, recorded 17 April 1943, in vol. 47, p. 58, records of the Windsor town clerk.

<sup>34</sup> See "Forest Management Plan for Windsor Municipal Forest, Windsor, Vermont," January 10, 1961, and Compartment Map dated 1961, both by Eugene E. Keenan, records of the Vermont Department of Forests, Parks, and Recreation, Pittsford. See also "Resolution and Charge—Paradise Park Committee," 9 May 1979, records of the Windsor town clerk.