

Yasuhide Kawashima, "Forest Conservation Policy in Early New England" *Historical Journal of Massachusetts* Volume 20, No. 1 (Winter 1992).

Published by: Institute for Massachusetts Studies and Westfield State University

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Forest Conservation Policy in Early New England

Yasuhide Kawashima

In the early seventeenth century, the Atlantic coast of North America was covered by thick forests, which contained hardwood and softwood trees. Some of the trees were familiar to the colonists, but others they had never seen before. Although anthropologists disagree on the extent of cleared area and open, park-like woods, they all observe that the North American forests teemed with rich natural resources and were among the most valuable assets for the early settlers.¹

While the colonists, who had to clear the land for settlement and agriculture, may have at first regarded the forest as an obstacle, they quickly recognized the potential value of forest resources. The Reverend Francis Higginson, one of the first Puritan settlers, stated in 1630 that there were no better woods in the world than those in New England, and he went on to describe the various trees that could be exploited for their value.² Indeed, the New England residents' need for wood was so basic that during the colonial period they cut virtually all the original woodland.³

Settlers used wood in a great variety of ways. Furniture was made of wood, and the trees furnished frames, planks, and boards for their houses, and material for the long fences needed for their fields and pickets for the home lot. The oxcart, with its solid wheels, plow, harrow, sled, drag, hay rake and fork, flail, shovel, and most of the tools and utensils were made of wood. Table

1. Gordon M. Day, "The Indian as an Ecological Factor in the Northeastern Forest," Ecology, XXXIV (April, 1953): 329-436.

2. Francis Higginson, New England's Plantation (London, 1630), n.p.

3. J. Gordon Ogden, III, "Forest History of Martha's Vineyard, Massachusetts. I. Modern and Pre-Colonial Forests," American Midland Naturalist, LXVI (1961): 417-430; Albert E. Cowdrey, This Land, This South: An Environmental History (Lexington, Kentucky, 1983), pp. 52-53; Jenks Cameron, The Development of Government Forest Control in the United States (Baltimore, 1928), pp. 18-20.

dishes, bowls, spoons, cheese vats, milkpans, and buckets were also all wood.⁴

In addition, immense quantities of wood were burned in fireplaces for heating and cooking. The colonists found New England colder than old England in the winter, although it is located much further south in latitude. Severe winters forced the settlers to make great fires, which Europeans could not afford to make. "Here is good living for those that love good fires," Higginson remarked. A poor servant with fifty acres of land in North America, he stated, could have more wood for timber and fire than many noble men in England could afford.⁵

An ordinary colonial household needed twenty cords a year. Commercial centers, such as Boston and Salem, were great consumers of firewood. Some came from nearby farms, and much was brought by boat from New Hampshire. Early fishermen consumed a large amount of firewood to cure their catch on any unoccupied beach. Their uncontrolled cutting of timber is regarded as a major factor in the depletion of forests on the Maine coast.⁶

Bakers, brickmakers, and the lime-burners were consumers of large amounts of cordwood. The numerous pig-iron foundries and forges also needed great quantities of fuel, largely charcoal. An iron-maker required 130 to 150 bushels of charcoal, the product of five cords of wood, for every ton smelted.⁷

Potash and its more refined form, pearlash, which came to enjoy a good market in England, also required large quantities of timber. An acre of wood produced up to two tons of potash, which was heated redhot to produce creamy white pearlash. They were useful for soap- and glass-making as well as being valuable as a component of medicines. Tanners needed bark, especially

4. Howard S. Russell, A Long, Deep Furrow: Three Centuries of Farming in New England (Hanover, New Hampshire, 1976), pp. 81-85, 176.

5. Higginson, New England Plantation, n.p.

6. Douglas R. McManis, Colonial New England: A Historical Geography (New York, 1975), p. 105.

7. Russell, Long, Deep Furrow, pp. 65 and 175; First Ironworks Association, The Saugus Restoration (Saugus, 1951); Samuel Eliot Morison, Builders of the Bay Colony (Boston, 1930), p. 279.

from the chestnut oak, for processing hides and skins. As early as the 1640s, another industry had developed: tapping evergreen forests for naval stores such as pitch and tar. Although most of the colonies produced naval stores, the industry was especially important in the Carolinas.⁸

Another type of forest use which rose to prominence by the eighteenth century was maple-sugaring. At first the colonists tapped sugar maples for their own use only, but later they started to tap it for sale. In some communities, maple orchards were planted to make the collection of syrup more systematic and convenient.⁹

Shipbuilding consumed a large quantity of forest resources. The presence of an immense supply of forest products, especially oak and pine, made shipbuilding possible at only three-fifths of the English costs. Shipbuilders of Portsmouth, Medford, New London, and other centers required the best oak and pine for their vessels, many of which were sold abroad. As New England's trade expanded, shipbuilding offered a growing market for all kinds of forest products. Ship masts, timber, and wood products, such as hogsheads and barrels, clapboards, pipestaves, planks, dealboards, pitch, tar, and hemp, came to be exported to Europe and the West Indies.¹⁰

The forest resources, which satisfied the colonists' daily needs and turned out to be profitable export goods, became a mainstay of the colonial economy. Thus, the forest came to be ruthlessly exploited. Deforestation was most noticeable, of course, immediately around those towns with the highest population densities and in areas such as the lower Piscataqua, where the manufacture of forest products was emphasized. By the early 1700s, the urban areas often depended almost exclusively on

8. J. E. A. Smith, The History of Pittsfield, Massachusetts, from the Year 1734 to the Year 1800 (Boston, 1869), p. 42; Russell, Long, Deep Furrow, pp. 65, 174, and 175; McManis, Colonial New England, p. 114; Cowdrey, This Land, This South, p. 53; Richard G. Lillard, The Great Forest (New York, 1947), pp. 114-115.

9. McManis, Colonial New England, p. 114.

10. Edward Randolph, "Report to the Committee for Trade and Plantation," October 12, 1676 (Prince Society Reprint, Boston, 1898), II: 248; Russell, Long, Deep Furrow, pp. 64-65, 113, and 123.

supplies brought in from the woodlots of less urbanized neighboring towns or from distant forest lands.¹¹

By contrast, in the Southern colonies, large-scale deforestation was still in its infancy during the first half of the eighteenth century, although the forest had been modified greatly by the rapid growth of clearings and by the market production of timber and naval stores. The Revolutionary generations were able to continue the tradition of commercial forestry that the colonists had established, but, as one observer noted, the woodland they encountered "was nowhere like that which the colonists had found, and in certain localities there was probably no resemblance at all."¹²

Such wholesale exploitation of the forests forced the colonial authorities to take action to conserve the woodlands. Many early New England settlers were conscious about conservation because they came from England, where various environmental problems had long existed, including the short supply of timber and wood fuel.¹³ On the other hand, the colonists, though settled in a wilderness filled with natural resources, must have felt a real threat because wood was not always close at hand. Trees within hauling distance were rapidly cut. The lack of roads meant that trees could not be moved except by water; hence, amid a seemingly endless forest, colonists faced the problem that trees which were both valuable and movable were comparatively few. Conservation therefore became a viable concern, as timber near waterways approached depletion. New England observers perceived dwindling stands as a threat to the means of sustaining the colonial experiment.¹⁴

Depletion of accessible timber was so quick that within a decade of settlement many of the original towns imposed regulations to preserve the remaining trees, while newly-established towns often included cutting regulations among their

11. McManis, Colonial New England, pp. 115-116.

12. Cowdrey, This Land, This South, p. 54; Lillard, The Great Forest, pp. 67-68.

13. Russell, Long, Deep Furrow, pp. 65 and 176.

14. McManis, Colonial New England, p. 113; Cowdrey, This Land, This South, p. 53; Thomas R. Cox et al., This Well-Wooded Land (Lincoln, Nebraska, 1985), p. 44.

first laws. In fact, a local timber shortage was often the first ecological crisis.¹⁵

Conserving the forest and timber was one of the colonists' strong concerns in New England, where compact and clearly-defined townships were the normal pattern of settlement. Plymouth Colony took the lead by passing a law in 1626 seeking to prevent "such inconveniences as do and may befall the plantation by the want of timber." Shipment of timber outside the colony, regardless of the quantity, was subject to licensing, and duties were levied on the export of boards, planks, and staves.¹⁶

The colonial conservation regulations in general sought not only to prevent the destruction and waste of valuable resources, but also to ensure that community members, not outsiders, would benefit from them. Some statutes forbade the cutting of timber entirely, while others discouraged wasteful cutting, by restricting the colonists from getting more timber than necessary, by restricting cutting to certain times of the year and to selected areas only, and by prohibiting commercial use of the cut wood. Although mill owners were permitted to cut timber freely for their own use, New England authorities opposed the large-scale exportation of lumber and lumber products, such as barrels, pipes, hogheads, and staves.¹⁷

15. McManis, Colonial New England, pp. 113-114.

16. John D. Cushing, ed., The Laws of the Pilgrims: A Facsimile Edition of The Book of the General Laws of the Inhabitants of Jurisdiction of New-Plymouth, 1672 & 1685 (Wilmington, Delaware, 1977), p. xiii; Cox, This Well-Wooded Land, p. 44; Yasuhide Kawashima and Ruth Tone, "Environmental Policy in Early America," Journal of Forest History, XXVII, no. 4 (October, 1983), pp. 168-179; Cameron, Forest Control, p. 15.

17. J. H. Trumbull and C. J. Hoadley, eds., Public Records of the Colony of Connecticut (1636-1776) (Hartford, 1850-1890), I: 60, 67, 243, and 558; III: 235; IV: 316-317; V: 434-435 (hereafter cited as Public Records of Conn.); N. B. Shurtleff et al., eds., Records of the Colony of New Plymouth in New England (1620-1692) (Boston, 1855-1861), II: 4 (hereafter cited as Records of New Plymouth); A. B. Batchellor, ed., Laws of New Hampshire, including Public and Private Acts and Resolves and Royal Commissions and Instructions (Manchester, 1904-1922), I: 731, II: 19 and 82-83 (hereafter cited as Laws of New Hampshire); The Laws of the Pilgrims, pp. 31 and 61; J. R. Bartlett, ed., Records of the Colony of Rhode Island and Providence Plantations in New England (1636-1792) (Providence, 1856-1865), I: 15 (hereafter cited as Records of Rhode Island); Charters and General Laws of the Colony and Province of Massachusetts Bay

Even more restrictive were regulations regarding the white pines, which dominated the landscape of some sections of New England. These trees, usually measuring between 150 and 200 feet high and from three to five feet in diameter at the base, could serve as mainmasts without being spliced.¹⁸ As early as 1645, a group of Massachusetts entrepreneurs agreed to supply English merchants with one hundred white pines for masts, from the forests in Maine. Masts were sent regularly from 1649 and, in the 1660s, even served the Massachusetts government as a bribe to Parliament for the continuation of its "precious liberties" without interruption.¹⁹

The potentially ruthless exploitation of "mast" pine by New England merchants was checked by the new monarchs, William and Mary, who initiated the policy of reserving them for the royal navy. Accordingly, the Massachusetts charter of 1691 prohibited cutting trees that a foot from the ground measured twenty-four inches or more in diameter, on penalty of a fine of one hundred pounds per tree. New Hampshire settlers were slow to comply with a similar provision in their charter, and in 1702 a royal instruction was sent to Governor Joseph Dudley directing him to urge the colonial assembly to act "for the better preventing the further Spoil of those Woods, and for preserving a Nursery of Such Trees." A statute was then passed in 1708 to enforce the policy more vigorously.²⁰ Parliament passed a more comprehensive White Pine Act in 1711, which applied not only to New England but also to New York and New Jersey. Eighteen years later, the British white pine policy was extended to the South, when a law was passed to cover all of North America which was at that time or which might eventually come under the

(Boston, 1814), pp. 1-5 and 148-149 (hereafter cited as Charters and Laws of Massachusetts); Charles F. Carroll, The Timber Economy of Puritan New England (Providence, 1973), pp. 36, 86, 105-106, and 113-114; Kawashima and Tone, "Environmental Policy," p. 169; Cox, This Well-Wooded Land, p. 44; Cameron, Forest Control, p. 15.

18. Carroll, The Timber Economy, pp. 36 and 44.

19. *Ibid.*, pp. 86, 105-106, 113-114.

20. Charters and Laws of Massachusetts, pp. 18-37; Laws of New Hampshire, II: 19 and 82-83.

control of England.²¹ In 1743, a Massachusetts law reaffirmed the basic policy with more rigorous enforcement, while providing a means for avoiding unnecessary actions against authorized cutters.²²

The English government appointed officials to locate all the trees that were two feet or more in diameter and to mark them with the broad arrow that reserved them for the king's use, and then tried to enforce the law through vice-admiralty courts, which operated without a jury. The laws were often violated by lumbermen and landholders who were interested in sawing timber into boards which could be sold. At Northampton, for example, of 363 trees bearing the king's broad arrow, all but thirty-seven disappeared.²³

On the whole, however, these white pine laws, though not designed as preservationist measures, helped to reduce the careless exploitation of "his Majesties Woods." They also checked the philosophy that the public timber was "anybody's timber," and established a precedent for curbing the private abuse of a valuable common resource.²⁴ On the part of the British, the regulations show some of the elements of conservation policy, revealing a real concern for the future supply of ship timber.²⁵ At any rate, when the Revolutionary War ended in 1783, there were still enough royal pine trees preserved in Massachusetts for the state legislature to continue the British policy by forbidding the cutting of the trees within the state without a license.²⁶

Trees other than white pine also came under the protection of colonial laws. Numerous statutes were enacted after the second half of the seventeenth century, carrying penalties from ten to

21. Public Records of Connecticut, VII: 264-265; Cowdrey, This Land, This South, p. 53.

22. Acts and Resolves, Public and Private, of the Province of Massachusetts Bay (Boston, 1869-1922), III: 116-117 (hereafter cited as Mass. Acts and Resolves).

23. Russell, Long, Deep Furrow, p. 174; Cowdrey, This Land, This South, pp. 53-54.

24. Carroll, The Timber Economy, p. 119.

25. *Ibid.*; John Ise, The United States Forest Policy (New Haven, 1920), p. 19; Cox, This Well-Wooded Land, p. 43.

26. Ise, United States Forest Policy, p. 21.

forty shillings per tree for "cutting, felling, destroying, or carrying away any trees, timber, poles, wood, and underwood" from not only the property of others, but also from common or undivided land.²⁷ In the colonies outside New England, trespassing was also a serious concern. Virginia passed a statute in 1677 with the stiff penalty of five pounds per tree, in order to stop the wholesale practice of trespassing on another man's land, and East Jersey imposed the same penalty in 1678 for any trees cut from unpatented lands; five years later, East Jersey authorized the governor to issue a proclamation providing for a rigid enforcement of the law against persistent encroachments. New Jersey legislation of 1714 and 1771 charted the same course toward greater harshness in trespass laws.²⁸ During its first ten years, Pennsylvania enacted four laws dealing exclusively with trespassing on timber land. The law of 1683 carried a penalty of five pounds for each tree cut, which two years later was raised to ten pounds. William Penn's proclamation of 1686 appointed several commissioners to prevent such trespassing in the Philadelphia area. The penalty was lowered by 1693 to forty shillings per tree.²⁹

Because they had little common, undivided land, the Southern colonies failed to pass laws against trespassing,³⁰ but violations were rampant throughout the English colonies. Even those settlers who had their own woodlots often poached timber from the tracts of absentee owners or from ungranted lands or commons, in order to save their own.³¹ These laws dealt with the

 27. Mass. Acts and Resolves, I: 156, 324-335; II: 383-385; Public Records of Conn., VI: 60; VII: 30, 199, 519; Laws of New Hampshire, I: 592-593; Laws of New York from the Year 1691, to 1773 inclusive (New York, 1774), I: 26-28 (hereafter cited as Laws of New York).

28. W. W. Hening, ed., The Statutes-at-Large, being a Collection of all the Laws of Virginia, 1619-1792 (Philadelphia and New York, 1823), II: 415-417 (hereafter cited as Virginia Statutes); Ise, United States Forest Policy, p. 21; Cox, This Well-Wooded Land, p. 46.

29. George Staughton et al, eds., Charter to William Penn, and Laws of the Province of Pennsylvania, Passed Between the Year 1682 and 1700 (Harrisburg, 1879), pp. 160 and 252 (hereafter cited as Charter and Laws of Penn).

30. Cowdrey, This Land, This South, p. 54.

31. McManis, Colonial New England, pp. 113-115.

difficulty unique to the forest and to timber, not with simple stealing. The motivation for flouting the regulations was obvious: the potential for monetary advantage made the risk worth taking. Timber trespass laws, designed to prevent with stiff penalty the unplanned, random, and indiscriminate cutting of timber by intruders, who could easily evade the laws because of the difficulty of enforcement, reveal the colonial governments' frustrated attempts at conservation.³²

Colonial authorities regarded the Indians as careful users of forest resources, but guarded their country against trespassing by white settlers. The legislatures dealt with trespassing strictly, forbade any private transactions deeding Indian lands to whites, and invalidated any white man's agreement for cutting wood and timber on the tribal land.³³ Early statutes also indicate the limits of colonial conservation doctrine. In contrast to these early efforts to conserve timber, unrestricted use was sanctioned where the common good was thought to be served. The fort builders, for instance, were authorized to cut and use as much pine as necessary, and ironworks, a vital public enterprise, were given similar encouragement and incentive.³⁴

Fire, which threatened the devastation of forest resources, also became an object of colonial regulations. Indians used fire extensively to clear forest underbrush, thereby facilitating travel, encouraging the growth of fodder for deer, and clearing land for planting. The natives claimed that the fires which they set twice a year did not threaten soil fertility or mature wooden vegetation.³⁵ Colonists, who adopted the practice from the

32. Cox, This Well-Wooded Land, p. 46; J. P. Kinney, The Essentials of American Timber Law (New York, 1917), pp. 96-97; J. P. Kinney, Forest Legislation in America prior to March 4, 1789 (Ithaca, N.Y., 1916), pp. 372-374.

33. Wilbur R. Jacobs, Dispossessing the American Indian: Indians and Whites on the Colonial Frontier (New York, 1972), p. 52; Calvin Martin, Keepers of the Game: Indian-Animal Relationships and the Fur Trade (Berkeley, Calif., 1978), pp. 3-26; Records of Rhode Island, IV: 151; Public Records of Conn. IX: 306; X: 20, 108, and 136; XI: 417; Cox, This Well-Wooded Land, p. 39.

34. Virginia Statutes, II: 220-221; IV: 296-300; VI: 137-139.

35. Jacobs, Dispossessing the American Indian, pp. 8, 25, and 127n; Francis Jennings, The Invasion of America: Indians, Colonialism, and the Cant of Conquest (Chapel Hill, N.C., 1975), pp. 61-62; Carroll, The Timber Economy, pp. 30-32, 34, 35, 164;

Indians, came to use fire chiefly as a means of clearing land for agriculture. The tool was the same, but the effect was different. Indian fires, which primarily burned in the underbrush, were less hot and thus did less damage to the soil than those of the land clearers.³⁶

During the seventeenth century, the colonial authorities allowed burning under restricted conditions. Plymouth passed America's first forest fire prevention legislation in 1634, forbidding the setting of fires in the woods, except between the middle of September and October and between February and the middle of March. The law required that prior warning be given to the neighbors. Other New England colonies established similar burning seasons, although the permissible periods differed widely. Forest clearing by fire continued, but the later laws became more stringent — and indicated more concern about the long-term effects of fire upon the environment.³⁷ The preamble of a 1742 Massachusetts law, for instance, stated that "the burning of the woods does greatly impoverish the lands, prevent the growth of wood, and destroying fence, to the great detriment of the owners." The law prohibited burning in the common woods, without permission, on penalty of a fine of forty shillings and the cost of any damage incurred by the proprietors.³⁸ Other colonies prohibited forest clearing by fire altogether. A 1727 New York law directed at the burning of old grass on Hampstead Plains is important for its ecologically sensitive attitude. It prohibited the "ill and useless Practice" of burning, on penalty of a fine of ten pounds, insisting that it impoverished the soil, destroyed the roots of the grass, and disposed the ground to barrenness.³⁹

 Martin, Keepers of the Game, p. 180; Calvin Martin, "Fire and Forest Structure in Aboriginal Eastern Forest," The Indian Historian, VI (Summer, 1973), pp. 3-26; George P. Marsh, Man and Nature, ed. by David Lowenthal (Cambridge, 1965), p. 120.

36. Russell, Long, Deep Furrow, pp. 171-172; Cox, This Well-Wooded Land, pp. 39 and 46.

37. Records of Rhode Island, I: 96, 107, and 114; III: 513; V: 340; Charter and Laws of Mass., p. 112; Public Records of Conn., VII: 456-457; Charter and Laws of Penn., pp. 137 and 208.

38. Mass. Acts and Resolves, III: 40-41 and 682-83.

39. Laws of New York, I: 141-142.

Yet fires were so easy a way to clear land and undergrowth, destroy nests, and aid in hunting that the woods continued to be burned as before. There are many records of destructive forest fires. One started near Lebanon, New Hampshire, in the dry summer of 1661, crossed into Maine and reached the sea at New Casco after a whole month. Such fires destroyed not only standing trees but laboriously erected fencing. In a similar Cape Cod fire of 1772, great numbers of sheep were lost.⁴⁰

Despite this, early settlers demonstrated that their regard for the future timber supply was real and sincere.⁴¹; Ise, *United States Forest Policy*, p. 20.) The colonial reforestation policy took several forms. The first legislation involving timber conservation was a policy of prohibiting the cutting of younger trees. In 1689, Malden, Massachusetts, forbade felling for firewood any trees of less than one foot girth. Another Massachusetts town, Hadley, forbade cutting young oak and walnut trees, and made it illegal to sell timber out of the town.⁴²

While regulations on harvesting became widespread, attempts were also made to plant trees. Pennsylvania took the lead in this endeavor. People were urged to plant and preserve one or more trees in front of their houses,⁴³ and they were required to keep one acre in trees for every five acres they cleared.⁴⁴ A New York governor recommended that each person who removed a tree should pay for planting four or five young trees.⁴⁵ Shade trees on highways were often especially protected. In the Bay Colony, Watertown in 1649 appointed two citizens to mark trees to be left on the highway for shade, while Groton in 1665, only thirty years after its founding, had officials designate shade trees to be

40. Cowdrey, *This Land, This South*, p. 54; Russell, *Long, Deep Furrow*, p. 172; Clarence A. Day, *A History of Maine Agriculture, 1604-1860* (Orono, Maine, 1954), p. 40.

41. J. P. Kinney, *Development of Forest Law in America prior to March 4, 1789* (New York, 1972), Chap. 1; reprint of *Forest Legislation in America....* Ithaca, 1916

42. *Laws of New York*, II: 691-692.

43. Cox, *This Well-Wooded Land*, pp. 45-46.

44. *Ibid.*; Ise, *United States Forest Policy*, p. 21.

45. Ise, *United States Forest Policy*, p. 20.

protected along its roads, the same policy that Ipswich adopted the following year. In 1685, the Newbury selectmen approved the petition of Job Pilsbury to forbid the cutting of a white oak standing on the highway near his father's farm, and to give him permission to preserve it. In 1716-1717, Newbury appointed officers to prosecute anyone who cut or defaced trees on any highway. In 1735, Guilford, Connecticut, required permission from the selectmen to fell or destroy "any Tree or Trees that are now standing or that shall be set out on the Highways." These examples show that early New Englanders were desperately trying to preserve their street trees, which they valued. Salem, Massachusetts, short on shade for cattle, went further. In 1747, the town commoners voted bounties for anyone who would plant locust trees on the highlands.⁴⁶

The shortage of timber even caused the authorities at times to discourage the building of fences. In the British colonies, the landowners, not the owners of cattle, had the responsibility of constructing fences to keep cattle from invading their fields. The intention was to increase the meager supply of livestock by permitting cattle to wander about in order to breed faster. The enclosure of fields, not of livestock, continued to utilize excessive amounts of wood. Such a requirement was occasionally lifted in order to save timber. A town ordinance of Medfield, Massachusetts, in 1664, for example, forbade the fencing of land if a ditch would serve to keep the livestock out.⁴⁷

New England tried also to prolong the life of "turpentine trees," stipulating that extraction should be limited to one part of the trunk. A 1715 Massachusetts act spelled out the fear for the future of naval-stores production and sought to end "greater waste and destruction made of pine trees and other timber within this province." Similar legislation was enacted in other New England colonies as well.⁴⁸

The idea of forest reserves had developed by the eighteenth century. In 1744, the Massachusetts legislature responded to the

46. Russell, Long, Deep Furrow, pp. 66 and 171.

47. *Ibid.*, p. 66; David T. Konig, Law and Society in Puritan Massachusetts: Essex County, 1629-1692 (Chapel Hill, N.C., 1979), p. 118.

48. Cox, This Well-Wooded Land, p. 44.

devastation of Chibaco Woods in Ipswich by cattle and sheep with a law authorizing the proprietors of the forest to form a society that would manage the affairs of the woods. This proved to be an effective means of conserving wood and timber. Another law was enacted a decade later that established a proprietors' society to preserve a nearby Wenham forest.⁴⁹

The New England tradition of the village common survived first in the town square, then in public parks. As early as 1641, the Massachusetts legislature passed an ordinance setting aside "Great ponds" — bodies of fresh water ten acres or more — as reserves for fishing and hunting. These reserves seem to have been designed for recreation and domestic food supplies rather than for economic considerations. In other colonies, land was also set aside for the enjoyment of the people.⁵⁰

The protection of the deteriorating environment was another concern of the colonists. In the 1690s, the Bay Colony forbade tree-cutting on the "Province Lands" near the tip of Cape Cod, where drifting sand was silting up the harbor at Provincetown, due to the devastation of woods for fuel in the process of making lime from Indian shell heaps. A Plymouth town ordinance in 1702 made it illegal to cut pines at its beach, in order to prevent the sand from blowing. A situation created by the encroachment of sand dunes in the vicinity of the town of Truro, on Cape Cod, was brought about by cutting the timber and permitting stock to graze on the sea-side commons. A number of acts were passed during the middle decades of the eighteenth century to avert this menace, but to no avail.⁵¹

The exploitation of the colonial forests set in motion the enactment of a series of forest statutes that had grown to a considerable number by the end of the colonial period. These laws and regulations covered major aspects of forest conservation: restrictions on cutting timber, control over white pines and other trees, prevention of forest fires, strict rules on trespassing on forest

49. Mass. Acts and Resolves, III: 132-133 and 799; IV: 731.

50. Cox, This Well-Wood Land, p. 42.

51. Cameron, Forest Control, p. 15; Mass. Acts and Resolves, II: 967-968, 993-994, 1042-1043; III: 26-27, 117-118, 209-211, 338-342, 428-429, 446-447, 485-488, 5015-03, 546, 739-746, 808, 868, 1038-1040; IV: 22-25, 27-29, 70-71, 323-324, 333-334, 414-415, 427-428, 909-911, 983-984, 988-989.

land, and maintenance of the forest environment for the future timber supply. In retrospect, it can be argued that the efforts of New England colonists to preserve forests were unsuccessful. This failure was due not only to the lack of enforcement, but also to the inefficient coverage of the laws. The timber regulations, for example, applied only to undivided land or commons. Individual families in the New England town were assigned timbered acreage, and, as the population increased and more settlers received woodlots, the unallotted lands became smaller. It was up to the individual owners as to how they would use their forest land. As a strict statutory matter, farmers and landowners could not be easily taught how to manage their forests.⁵² While some farmers destroyed their woodlands, resorting to clear-cutting for large profits, many others did maintain woodlots for household use. There is one instance in which for over one hundred years two families cut all of their staves and firewood from a forty-acre lot.⁵³ Legislative control was even less effective in the South, where vast amounts of land were owned by individual planters and largely escaped public control.

The colonial conservation policy, designed to protect forests from theft and waste and to preserve timber as fuel sources for the community's benefit, was, to a certain extent, utilitarian in nature. Although it was designed to save forest resources, colonial conservation did not have a clear-cut plan for a remote future. Modern anthropologists rate early axemen by the stump sprout they left. A good axeman would leave a single sprout that within one hundred years would become twice the diameter of multiple sprout stems.⁵⁴ Such a consideration, controlling forest resources against total extinction in the remote future, never entered into the colonial forest policy.

Yet the colonial governments did try to manage natural resources in order to prevent ruthless exploitation, destruction, and neglect. Colonists lived in a land of plenty, yet their conservation

52. Cameron, Forest Control, p. 17. For the English forest law, which regulated forests on both public and private lands, see John Manwood, A Treatise of the Laws of the Forest (London, 1615); and N. D. G. James, A History of English Forestry (Oxford, England, 1981).

53. Ogden, "Forest History of Martha's Vineyard," pp. 426-427.

54. *Ibid.*

policy was not the result of their foresight that saw environmental disruptions before they became critical. Early New England forest policy was not preservation for preservation's sake, but was based upon the colonists' realization that their forest resources had been seriously depleted and that they were actually experiencing the scarcity of timber within their own communities.

The forest policy in early New England was not effective, because of the problems of an ever-growing population, of constant demand for cleared land, and of growing economic opportunities for forest products. The colonists' policies of conserving the forest, though they may not fit the strict definitions of environmental protection that modern scholars have developed, are, nevertheless, well-intended and became a harbinger for later conservation policies.