

Timber

When the Pilgrims left Europe, they left behind a deforested landscape completely cultivated for agriculture. In America, they encountered differences in climate, environment and vegetation.

“To the hardy band of Pilgrims who dropped anchor in Provincetown harbor in November 1620, accustomed as they were to an England barely 10 percent forested for centuries, the apparent abundance of natural resources must have been staggering.”

“The forest in particular appeared limitless. It was viewed in two ways: as a storehouse of commodities to sustain the colony and its prospective economic relationship with Europe, and as ‘an adversary, a barrier, and a fearsome threat to peace and security [Demos].”

“The Pilgrims’ livelihood would have to be ‘literally wrenched from nature.’ To those accustomed to the order of the English countryside, wild New England was evidence of a land simply awaiting settlement under God's providence.” (Foster)

“Myles Standish found near Plymouth in November 1620, ‘great oaks, but not very thick pines, walnuts, beech, ash, birch, hazel, holly, aspen, sassafras in abundance, and vines every where, cherry trees, and many others which we know not’”. (quoted in van Ravenswaay)

William Wood wrote an account of New England in 1634 and poetically described the forest trees:

Trees, both in hills and plains, in plenty be,
The long-lived oak, and mournful cypress tree;
Sky-towering pines, and chestnuts coated rough,
The lasting cedar, and the walnut tough ;
The rosin-dropping fir, for masts in use;
The boatmen seek for oars, light, neat grown spruce;
The brittle ash, the ever trembling asps,
The broad-spread elm, whose concave harbors wasps ;
The water-spungy alder, good for nought,
Small eldern by the Indian fletchers sought;
The knotty maple, pallid birch, hawthornes,
The horn-bound tree, that to be cloven scorns,
Which from the tender vine oft takes his spouse,
Who twines embracing arms about his boughs.
Within this Indian orchard fruits be some,
The ruddy cherry, and the jelly plum;
Snake-murthering hazel, with sweet saxaphrage,
Whose spurns in beer allay hot fever's rage ;
The dear sumach, with other trees there be.

Wood was the raw material most frequently used for fuel, construction, furniture, and countless other articles. In many of these products wood substituted for other materials traditionally used in Europe.

The abundance of wood in Southeastern Massachusetts made it easy to immediately begin construction on houses and fortification for settlements. (Lome)



Myles Standish State Forest-Plymouth MA

However, “Wood gathering ‘always cost a great deale of labour,’ (Bradford). One Pilgrim complaining that the colony’s location forced him to walk, ‘halfe a quarter of an English myle’ to gather wood; not a great distance, but tiresome considering the backbreaking labor and the enormous quantities involved – each family burned through an acre of wood a year.” (Rutkow)

“[T]he Pilgrims were already preconditioned to trades and tools, including in their shipboard complement a full supply of axes and saws; two members of their company were carpenters.”

“The assault on the surrounding forest began promptly, and a group of one-room posthole cottages and a surrounding wood palisade were soon built to provide housing and a measure of security.” (Foster)

Crucial to the development of Plymouth Colony were axes. The 17th-century axe used by the English consisted of two pieces of iron hammered and welded down the center of a poll.

As the colonists built their homes out of the timber native to the region, they found their traditional tools insufficient for the task of felling trees. During the process of repair work, blacksmiths up and down the coast began experimenting with lengthening the side of the axe that wrapped around the poll, creating more room for the welding surface.

This resulted in a tool with more weight and better balance, and modern axes descend from this model. Generally, however, the tools produced by Plymouth blacksmiths were rough and unrefined copies of the superior English implements originally brought over. Improvements or changes in style were rare. (Lome)

“The next move was to begin creating the English open-field setting with which they were most comfortable. Lacking wheeled vehicles and draft animals until 1621, and without a sawmill until the Sicutate settlement was founded in 1633, the Pilgrims had to undertake the clearing by hand”.



“[T]he resulting felled wood and other cleared materials were dragged to the village, floated down nearby Town Brook, or simply left in place to be reduced by fire. Unlike the Indians, the colonists were capable of harvesting the larger trees - and did.”

“Furthermore, the English tradition of ‘joining;’ (piecing together wood fragments) also made it possible for smaller-dimension material to be used.” (Foster)

In 1621 pressure from Plymouth Colony’s financiers impelled the colonists to ship to England a load of their commodities upon the vessel Fortune “laden with good clapboard as full as she could stowe.” (Bradford)

“The merchant backers of the settlement expected financial returns for their investment, and the reported abundance of the forest made that a promising prospect. “

“Two hundred pounds of wood samples were sent back to England on the Anne in 1623.” (Foster)

However, it wasn’t long before the pilgrims realized that their wood supply was too precious a resource to export, and promptly restricted overseas sales in a colony-wide decree:

Laws of the Colony of New Plymouth, 1623
Exportation of Timber Prohibited (Re-enacted in 1636 and 1638)

It was decreed by the court held the 29th of March Anno 1626, That for the preventing of such inconveniences as do and may befall the plantation by the want of timber ...

That no man of what condition soever sell or transport any maner of workes as frames for houses plankes boards shipping shallops boats cannoes or ...

whatsoever may tend to the destruction of timber aforesd how little soever the quantity be without the consent approbation and liking of the Governour and council.

And if any be found faulty herein and shall imbarque or any way convey to that end to make sale of any the goods aforesaid expressed or intended by this decree the same to be forfeited and a fine of twice the vallue for all so sold to be duly taken by the Governour for the use and benefit of the company.

In the division of land, January 3, 1627, the matter of timber was noted,

Plymouth : The 3rd of January 1627. It was agreed in a full court about division of lands as followeth.

Impr That the first division of the acres should stand and continue firme according to the former division made unto the possessors thereof and to their heires forever : **Free liberty being reserved for all to get fire wood thereon but the timber trees were excepted for the owners of the ground.**

4ly. This being done, that for our better subsistance and convenience those grounds which are nearest the town in whose lott soever they fall shall be used by the whole for the space of 4 years from the date hereof: viz, first that the right owner make choice of twice that quantity he shall or may use within the said terme and then to take to him such neighbours as shall have need and he think fit: but they cannot agree then the Govern and Council may appoint as they think meet: provided that the woods be ordered for felling and lopping according as the owner shall appoint: **for neither fire wood nor other timber either for building or fencing or any other use is to be felled or caryed off of any of these without the owners leave & licence, but he is to preserve them to his best advantage.**

“So successful was the forest exploitation that by 1631 the Massachusetts General Court had to begin enacting timber control ordinances for forest burning and the felling of trees and to start rationing fuelwood sources in the interest of conserving supplies and reducing waste.” (Foster)

The Court latter stated that any person may take limber, which is cut upon the common lands and not squared, &c. in six months

Wheras complaint is made that much timber is feld on the comon and lett lye and not employed and suffered to rott there by those that feld it and thereby the Countrey much daminfyed.

It is enacted by the Court that whosoever shall or hath felled any timber on the Comon and doth not either square or rive it within halfe a yeaere after it is felled it shalbee lawfull for any other to make use therof as they shall see meet. (Compact with the Charter and Laws of the Colony of New Plymouth, 1836)

Forest products became a regular item of trade from 1640 on. (Foster)



Regardless of the increase in timber production, the commodity was not as profitable as hoped; in part, higher wages were paid by freeholders compared to their serf counterparts in Europe, as well as the cost of transatlantic shipping.

In addition, the Dutch dominated trade, especially in England's colonies and could transport colonial exports more cheaply, offer a greater variety of imports, and generally provide a level of reliability England could not match. This meant that the Dutch controlled the lion's share of the market.

In October of 1651, the English Parliament passed its Navigation Acts of 1651; it greatly limited imports into England, prompting Denmark to prey upon British ships as they sailed to and from the Baltic Sea transporting their timber cargo.

It was at this time, on the eve of the first Anglo-Dutch War 1652–1654 that the Admiralty developed a plan to source North American timber and masts.

Accordingly, the Admiralty sent a fleet of mast ships in 1652 and thus began Britain's steady importation New England masts.

In 1672, the Colony's Court issued another timber export prohibition and also stated that the Court could appoint a person in each town to see that the order is carried out,

Be it enacted by this Court and the authoritie therof That noe timber of any sort may or shall within the tearme of seaven yeares next after the first of November next ensuing; bee at any

time transported or carryed away by land or water out of any Township in this Jurisdiction into any other Jurisdiction;

other than what is first sawne into boards or wrought into shingle or wrought up into Caske boates barques or other vessells of burden on the forfeite of all such timber planke Cooper stuffe bolts Claboard &c or the vallue therof;

the one halfe to the Countrey and the other halfe to the informer if duely proved within twelve months after such transportation made ; and that some meet pson be appointed and authorised by the Court in such Townes as they shall see cause lor to take care lor the due observation of this order;

and that noe master of any boate or other vessell presume to receive aboard any such timber plancke or Cooper stuffe &c. without first repaireing to such pson appointed and impowered as aforsaid and givelng in sufficient Securitie for his unlading and leaveing such timber &c in some towne within this Jurisdiction; the dangers of the seas excepted;

under the penaltie of forty shillings forfeite; the one halfe to the Countrey and the other halfe to the In- former and Officer appointed as aforsaid; forthwith to be payed;

And that such master of boate &c. shewing a Certificate from under the Constables hand ; or any of the Celectmen of the Townes where he shall unload as aforsaid, shall free and discharge him from the Securitie given as abovesaid.

And that noe barke shalbe transported out of this Jurisdiction under the penaltie and forfeiture as aforsaid.

Notwithstanding the former order concerning the transportation of timber it is ordered, That any pson or psons may transport any timber, out of any Townshipp that shall grow up on their own particular proprietyes, provided that they make it appear to any one of the Celectmen or Constables of the respective Townshipp by the testimony of one pson not interested therein;

and that ship carpenters be under the same restraint as others ; and that in defect of any officer neglecting to take notice of the transgression of this order such transgression of the said law shalbe presentable by the Grand Enquest. (Compact with the Charter and Laws of the Colony of New Plymouth, 1836)

“Because of the distances involved, New England never became a major exporter of timber to England except for its special role as a supplier of masts for the Royal Navy, but forest products did become a lucrative part of the flourishing trade between the colonies and the West Indies later in the seventeenth century.” (Foster)

Massachusetts Bay Colony Ship Building

Once the settlers in Massachusetts Bay had satisfied their need for housing, they began building ships. A large portion of the ships' frame was hewn from local white oak, which had many of the same qualities as the English oak. New England's white oak, however, proved most useful when built into a ship in Massachusetts.

Attempts were made to sell white oak logs in England, where the shortage of oak was acute, but were not very successful, because the oak was shipped immediately after being felled, rather than being allowed first to dry.

The holds of the ships of that time tended to be dank (few ships were totally water-tight) and filled with decay organisms. These infected the wood cargo, so that logs shipped to British shipyards had already begun to decay before they could be used.



For constructing ships in Massachusetts, however, they were highly satisfactory; and in shipbuilding the settlers of Massachusetts Bay and their descendants found a niche in world trade that lasted two centuries.

The first ship built in Massachusetts Bay colony was the *Blessing of the Bay*, launched in 1631 in Malden. It was followed in 1633 by the *Rebecca*, built in Medford. Both were relatively small ships, intended for the coastal trade.

But by 1636 the ocean-going vessel *Desire* slid down the ways in Marblehead. The *Desire* was followed by many others, for building ships in New England, despite the shortage of skilled shipwrights, was far cheaper than in England, because wood was so readily available.

(The 120-ton *Desire* is commonly believed to be one of the first ships to bring enslaved People of Color into the Massachusetts Bay Colony. Built to serve many purposes, the ship carried passengers, trade goods, and supplies throughout the Atlantic World. It also served a trade in people.) (Marblehead Museum)

By 1660 shipbuilding was a major industry in the Bay Colony; all the places with access to the rivers that flowed into Massachusetts Bay became busy shipyards, though Boston supplied the financing.

Throughout the colonial period New England continued to enjoy a great advantage in the shipbuilding industry, for its costs were below European costs.

One major advantage of the New England shipyards, besides the availability of oak ship timbers, was access to pine masts. For several centuries British shipyards had had to rely on Baltic sources for masts, produced from Scotch pine.

But as ships grew steadily larger, and carried more sail, larger and taller masts were needed. But large masts made of Scotch pine had to be pieced together.

However in New England's old growth forests were many white pines, a yard and more in diameter. A single tree could furnish the mainmast of a British man-of-war.

The rule of thumb was that a mast tree would have the same height in yards as it had in inches of diameter, so that a 36-inch-diameter tree would yield a 36-yard mast - over 100 feet tall.

Many of these trees were significantly larger. White pine masts such as these were available no place else in the world, and the men of Massachusetts Bay, skilled traders, soon learned to capitalize on this fact.

The abundance of naval stores and good timber enabled colonists to produce ships cheaper than the English, making it the most profitable manufactured export during the colonial period.

The Admiralty's venture to get mast logs out of the New England forest, in turn, produced a labor force that with it developed into a booming domestic lumber industry.

Since ninety-plus percent of New England pines harvested were unsuitable for masts, an important building and commodities lumber market emerged converting rejected masts into merchantable boards, joists and other structural lumber.

Such was the success of the colonial entrepreneurs that the Crown became concerned that its newfound resource of dependable naval stores and masts would quickly dwindle.

In response, King William III enacted a new charter in October 1691 governing the Massachusetts Bay Colony, which combined the former colonies of Plymouth, Massachusetts Bay, Maine, Nova Scotia, and certain lands lying between the latter two into a single province.

In the Charter "all Trees of the Diameter of Twenty Four Inches and upwards of Twelve Inches from the ground" growing on land "not heretofore granted to any private persons" were reserved to the Crown, to be cut only by royal license; a penalty of £100 for each tree cut without license was established. (MassHist-org)

The first mast was shipped from New England to England as early as 1634. By 1670 Portsmouth, in what is now New Hampshire but was then part of Massachusetts Bay colony, was regularly sending ten mast ships a year to England. Harvesting the pine masts, located mostly in New Hampshire and southern Maine, became a separate industry. (Most in this section is from Foster)

Information here is primarily from Journal of the Antiques, Erica Lome; America's Age of Wood, Charles van Ravenswaay; History of the lumber industry in the United States; The Compact with the Charter & Laws of the Colony of New Plymouth, 1836; A History of Massachusetts Forest - Stepping Back to Look Forward, Charles HW Foster, editor;

In an effort to provide a brief, informal background summary of various people, places and events related to the Mayflower, I made this informal compilation from a variety of sources. This is not intended to be a technical reference document, nor an exhaustive review of the subject. Rather, it is an assemblage of information and images from various sources on basic background information. For ease in informal reading, in many cases, specific quotations and citations and attributions are often not included – however, sources are noted in the summary. The images and text are from various sources and are presented for personal, noncommercial and/or educational purposes. Thanks, Peter T. Young