A GENERAL CONTEXT FOR THE LOG HOUSE IN NEW HAMPSHIRE

ARCHITECTURAL HISTORY HISTORIC PRESERVATION

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AUGUST 2011

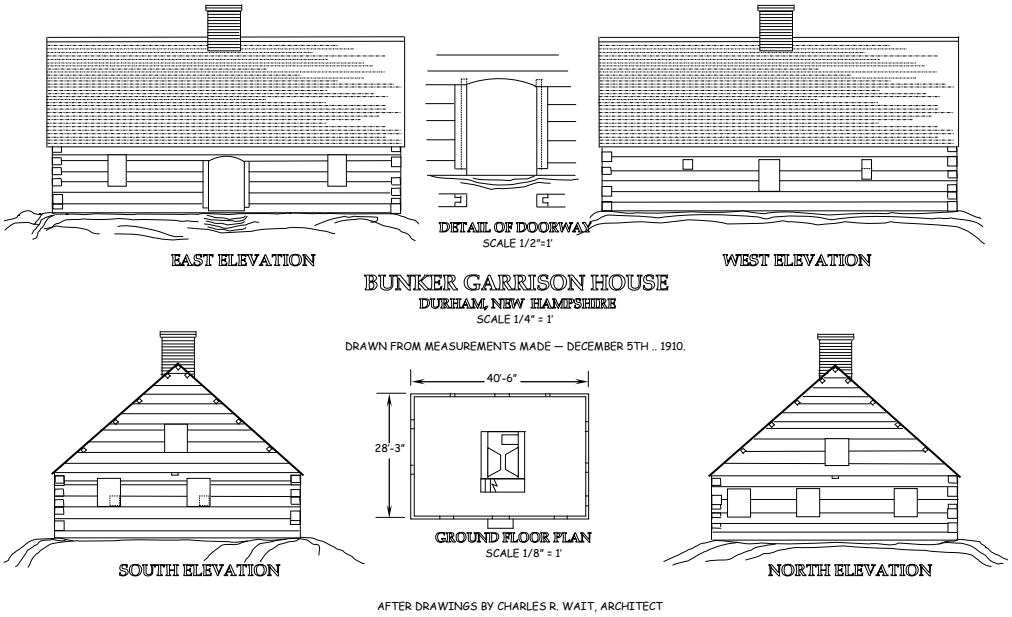
The first settlers of New England in the seventeenth century were ignorant of the log house. Possibly a few settlers had seen such structures in travels to the Baltic regions before their departure for the New World. Most, however, would have known nothing of such construction, and all evidence of the first wooden houses to be built in New England confirms that most of these structures were framed buildings, possibly accompanied in the earliest years of settlement by forms of "earth-fast" houses having the feet of their walls buried in the soil.

The false image of the log cabin as the home of the first settlers of New England had become so pervasive by the early twentieth century that Harold R. Shurtleff, a researcher at Colonial Williamsburg and a graduate student at Harvard, devoted the last years of his life to an extensive study to disprove the supposed connection between log structures and early seventeenth-century settlement in the Northeast. Shurtleff agreed that log construction had been brought to New Sweden (centered on the Delaware River) by the first settlers there in 1638. But he marshaled strong arguments to show that no such buildings had been constructed in New England before the mid-1600s, and then mostly as specialized structures, often as fortified places of refuge or defense. Shurtleff died before finishing his work, but his book was published posthumously in 1939 under the title *The Log Cabin Myth*.[1]

The earliest recorded log building in northern New England was a meeting house in Portsmouth, New Hampshire, built in 1659. A number of log structures are documented in coastal New Hampshire and Maine from the 1660s onward, many of them apparently serving as garrisoned houses or places of refuge during the recurring hostilities with Indian raiders from the north. Several log garrison houses survive in this region. Dr. Richard M. Candee has documented the fact that many of these structures were built of logs or thick planks sawn in water-powered sawmills, not hewn. Never more than a small minority of the structures standing in the coastal communities, these sawn log buildings were the product of an advanced technology. They represented an exploitation of the same industry that was rapidly reducing the forests of the

[1] Harold R. Shurtleff, *The Log Cabin Myth*, edited with an introduction by Samuel Eliot Morison (Cambridge: Harvard University Press, 1939).

coastal region to merchantable timber and lumber through a plethora of water-powered sawmills that stood on most streams in the coastal region. By 1718, almost a million board feet of pine boards and planks were being shipped from the Port of Piscataqua each year.[2]



Bunker Log House,
Durham, New Hampshire.
After drawings by Charles R. Wait, December 1910.
Although this house is said to have had an original second story that was removed in 1874, it illustrates the general appearance of the sawn-log dwellings of the New Hampshire seacoast.
Drawing by James L. Garvin, after Wait.

But while log buildings in the coastal region were usually erected for specialized purposes at a relatively early time period and remained uncommon, the log building became the predominant house type in settlements made in forested country after the mid-1700s. The emergence of the log house as a preferred building type in new settlements apparently occurred as the New Hampshire and Massachusetts governments granted the first inland townships in the 1720s. Early records of Londonderry, New Hampshire, settled by Scotch-Irish immigrants in 1719, make

[2] Richard McAlpin Candee, "Wooden Buildings in Early Maine and New Hampshire: A Technological and Cultural History, 1600-1720," Ph.D. dissertation, University of Pennsylvania, 1976. Estimates of the number of sawmills operating in the coastal region vary. Candee states that by 1700 more than sixty sawmills had been built between Hampton, New Hampshire and Casco, Maine (Ibid., p. 115; Candee, "Merchant and Millwright: The Water-Powered Sawmills of the Piscataqua," *Old-Time New England* 60 [April-June 1970]: 131-149). Jonathan Bridger, Surveyor-General of the King's Woods between 1705 and 1718, stated that his inquiries revealed more than seventy sawmills within a day's ride from Portsmouth in 1706 (Joseph J. Malone, *Pine Trees and Politics: The Naval Stores and Forest Policy in Colonial New England , 1691-1775* [Seattle, Washington: University of Washington Press, 1964], p. 57).

several references to log houses. While settlers in the new townships undoubtedly used sawn logs when they could obtain them, sawmills in new townships were often absent in the first years of settlement. Building contracts from the 1730s, and later, reveal that a number of these log structures were built of hewn timber.

By the 1760s, when the first partial listings of house types were compiled in New Hampshire, the majority of buildings in frontier settlements were "logg" or "poll" houses and barns, with framed houses in the minority. Many of the surviving inventories of frontier houses in New Hampshire were compiled by or for the Masonian Proprietors, a group of wealthy Portsmouth merchants who in 1746, with two British partners, purchased the proprietary claim to New Hampshire lands that had descended to the heirs of Captain John Mason, the original grantee of New Hampshire in the early seventeenth century. Mason's heirs claimed ownership of all lands in New Hampshire within a great arc with a radius of sixty miles from the sea.

The Masonian Proprietors began to grant townships within their holdings in December, 1748. As land speculators, the Proprietors were eager to encourage settlement. The Proprietors retained some lands in each township in their own rights, knowing that the efforts of pioneering settlers to clear farmsteads and build roads would add value to the lands they reserved for themselves.

The Proprietors laid out townships that averaged six miles on each side, or 36 square miles in area. They granted all the territory in each township at once, laying out ranges of lots of perfectly regular size, separated by range roads, from border to border within each grant. Near the center of each township, they typically carved out a six- or ten-acre tract for a meeting house, a burying ground, and a training field for the militia. To encourage settlement and qualify the grant to apply for a town charter, the Proprietors required that shareholders build a small house within a specified time, clear a certain amount of land on an annual basis, construct a meeting house, and employ or "settle" a minister. If water power was available, the Proprietors encouraged construction of a sawmill through a grant of land to a millwright. In the township of Andover (originally New Breton), for example, the 1751 grant of the Masonian Proprietors required that

> . . . fifteen Families be Settled upon said Tract of Land each having an house of Sixteen foot Square at Least or Equal thereto & four acres of Land Cleared & fitted for Tillage or mowing upon their Respective Shares within four years next after the Granting hereof & fifteen Families more so Settled within Six years from the Granting & thirty Families more within ten years from the Granting hereof[.] That within eight years from the Granting hereof a meeting house be Built . . .[3]

In order to monitor the fulfillment of these and other terms of their grants, the Proprietors inventoried the progress of settlement within a few years of each grant. Insofar as they survive, these inventories often list the types of houses and barns that had been built and the number of acres that each settler had cleared. These inventories provide the best available indication of the proportion of framed and log houses in the frontier towns. In 1769, for example, the Masonian

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[3] Albert Stillman Batchellor, ed., *Township Grants of Lands in New Hampshire included in the Mason Patent Issued Subsequent to 1746 by the Masonian Proprietary*, Vol. 27 of the New Hampshire Provincial and State Papers (Concord, N. H.: Edward N. Pearson, 1896), pp. 81-85.

township of Middleton was inventoried as having three "small frame" houses, one pole house, one log house, and three dwellings described as "Part of Logg House."[4]

It is likely that "log" houses were built of squared timbers, while "pole" houses were built of natural tree boles.

In 1770, the town of Wolfeborough, just north of Middleton, had seven framed houses (including Royal Governor John Wentworth's forty by one hundred foot mansion) and nineteen log houses.[5] In the same year, the township of Moultonborough, a few miles northwest of Wolfeborough, had six framed houses and twelve log dwellings, several of them apparently built for tenants by Colonel Jonathan Moulton, the chief proprietor of the township.[6] In 1771, the town of Limerick (later Stoddard), New Hampshire, contained fourteen log houses, twenty pole houses, three "camps," and six framed houses.[7] In the same year, Washington, New Hampshire, had thirteen log houses, one pole house, and seven framed houses.[8] Records from Maine suggest that some sixty percent of the dwellings in new settlements at the same period were log structures.

Writing in 1792, New Hampshire historian Jeremy Belknap described the common house in new settlements as "a square building of poles, notched at the ends to keep them fast together. The crevices are plaistered with clay or the stiffest earth which can be had, mixed with moss or straw. The roof is either bark or split boards. The chimney a pile of stones; within which a fire is made on the ground, and a hole is left in the roof for the smoke to pass out. Another hole is made in the side of the house for a window, which is occasionally closed with a wooden shutter. . . . Many of these first essays in housekeeping, are to be met with in the new plantations, which serve to lodge whole families, till their industry can furnish them with materials for a more regular and comfortable house."[9]

Clearly, these structures were regarded as temporary in nature. They were supplanted by larger and more permanent framed houses as soon as possible, and their replacement was regarded as proof of progress in any settlement. Inspecting the improvements that had been made in New Boston, New Hampshire, in 1759, one observer noted a family living in a house of round logs. Nearby, however, was the "frame of a house . . . with 4000 feet of boards lying at said frame . . . and a Cellar under the same," promising a more comfortable future for the family.[10] In visiting General Henry Knox's Boston-inspired mansion at Thomaston, Maine, in 1796, the Duke de la Rochefoucault Liancourt remarked approvingly that "the dwelling houses around are frequent; and out of a hundred that may be seen at the General's residence, there are hardly half a dozen loghouses."

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[4] Ibid., p. 501.
[5] Ibid., Vol. 28, p. 477.
[6] Ibid., Vol. 29, pp. 392-393.
[7] Ibid., Vol. 28, pp. 291-292.
[8] Ibid., p. 407.
[9] G. T. Lord, ed., *Belknap's New Hampshire: An Account of the State in 1792* (Hampton, N. H.: Peter E. Randall, 1973), p. 195.
[10] Albert Stillman Batchellor, ed., *Township Grants of Lands in New Hampshire included in the Mason Patent Issued Subsequent to 1746 by the Masonian Proprietary*, Vol. 28 of the New Hampshire Provincial and State Papers (Concord, N. H.: Edward N. Pearson, 1896), p. 65.

The authors of several nineteenth-century New Hampshire town histories noted the quick disappearance of the log houses of the first settlers. In his *History of Sanbornton*, the Rev. M. T. Runnells quoted earlier comments to the effect that

> The primitive log cabin—dark, dirty, and dismal—rarely outlived its first occupant. With the progress of society in a new town it would look like premeditated poverty for the son to be content with the first shelter that his parents reared in the wilderness.[11]

For this reason, few early log houses are to be found in northern New England. A number were mentioned, and even photographed, in the late nineteenth century, but most have since disappeared. Those that survived into the late nineteenth century were often covered with clapboards and plastered inside, hiding their identity from the casual observer. The last log house in Weare, New Hampshire, for example,

> . . . was taken down a few years ago [before 1888]. . . . It stood half a mile east of the Center Square, and was built by Amos Stoning more than a hundred years before of hewn logs. The partitions were also of hewn timbers. Long ago it was sealed up on the timbers and plastered overhead, clapboarded with split clapboards on the outside, and made to resemble a modern built house. No one passing suspected it was an ancient log cabin, the only one [remaining] in town.[12]

Surviving log houses, including several in Maine and a number in Vermont's Champlain Valley and on the islands of Lake Champlain, provide rare glimpses of once-dominant building traditions and technologies that have nearly vanished from the landscape. One such house survived in a remote location on Bald Mountain in Campton, New Hampshire (now close to the boundaries of the White Mountain National Forest) until the early 1940s. It was recorded by photographs and measured drawings by the Historic American Buildings Survey in 1936-7. No trace of the house remains except for its stone underpinning and fireplaces, but the HABS records show that its walls were ten logs in height, with an additional 10-inch-high wall plate log set atop the front and rear walls to receive the feet of the rafters. This design provided a wall height of somewhat over eight feet between the top of the foundation and the bottom of the wall plate.

The house measured 26 feet deep by 36 feet long, and had a half cellar. Its roof was framed with rafters and purlins in a manner characteristic of all of New Hampshire roof framing in the eighteenth century except for the Connecticut River Valley, as shown in the drawing below.

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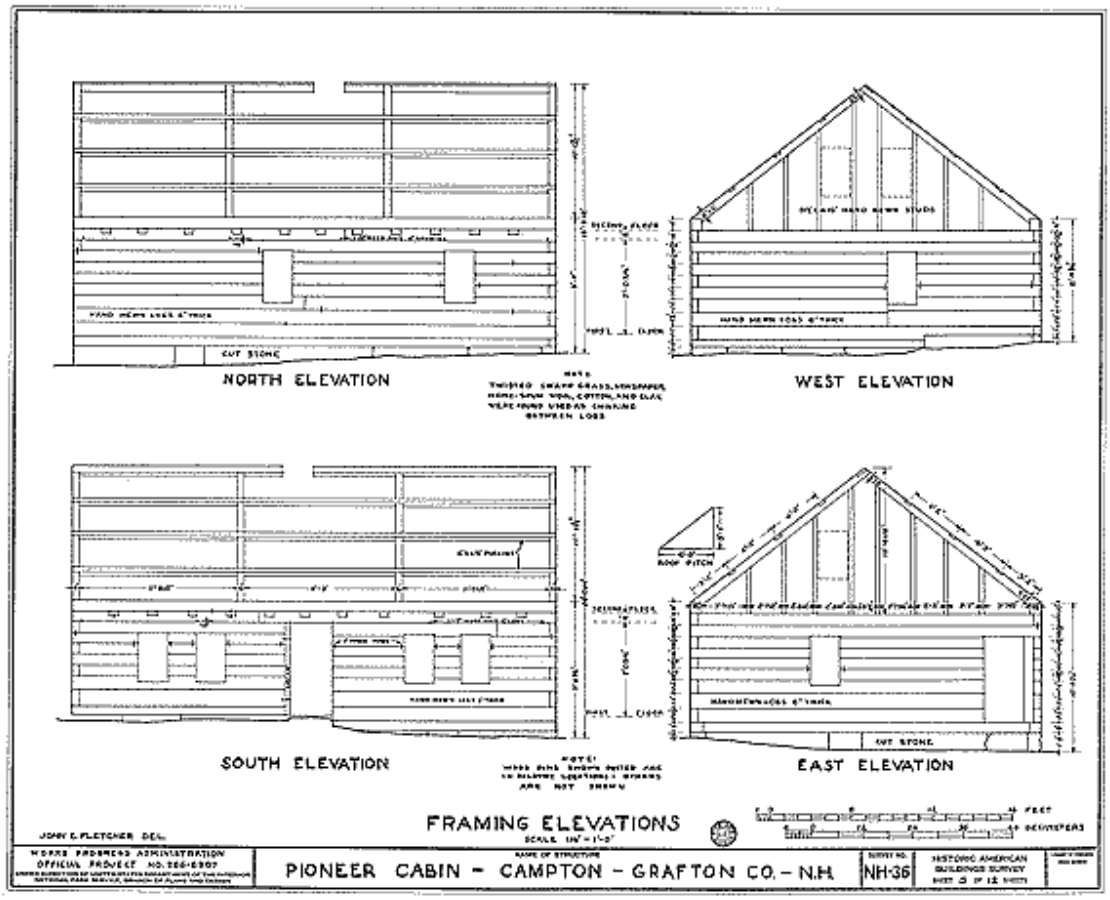
[11] Rev. M. T. Runnels, *The History of Sanbornton, New Hampshire*, 2 vols. (Boston: Alfred Mudge, 1881-2), p. 58, quoting Edwin David Sanborn, *History of New Hampshire from its First Discovery to the Year 183* (Manchester, N. H.: John B. Clarke, 1875).

[12] William Little, *History of Weare, New Hampshire* (Lowell, Mass.: S. W. Huse, 1888), p. 648.



Pioneer Cabin—Campton—Grafton County, N. H.
Historic American Buildings Survey, 1936-7
HABS NH-36 (HABS, NH,5-CAMP.V)

As may be seen in the drawing, the courses of wall logs in this building were generally matched in height around the perimeter. The ends of the logs therefore intersected at even elevations. The HABS surveyors determined that some logs were pinned at their end joints, as well as at points near window openings where the logs would need vertical connections to avoid instability. Photographs reveal that the Campton logs were smoothed with an adze, at least on their exterior faces. The joints between the logs are tight, with those in the Campton building giving the impression almost of sawn surfaces like those seen in earlier log buildings in the seacoast. The ends of the attic joists were half-lapped into front and rear wall logs rather than resting on top of these logs. The building had no collar ties between the rafters, but rather relied on the stiffness of the front and rear walls, tied together by the attic floor joists, to resist the spreading tendency of the rafter pairs. The building had studded gable ends above the log walls.

While standing or thoroughly documented examples of log houses are extraordinarily rare in New Hampshire, many nineteenth-century town histories attest to the commonplace occurrence

of such buildings in new settlements. Log houses were undoubtedly most prevalent in areas where no sawmill had yet been built to supply sawn boards or timbers.

New Breton (later Andover) seems to have been a paradigm of the log building tradition on the New Hampshire frontier. Although the published records of the Masonian Proprietors do not enumerate the number of log houses in Andover, the 1910 town history asserts that

> All of the houses of those who settled in Andover before 1770 are believed to have been constructed of pine, hemlock, or spruce logs. The first cabin of Joseph Fellows was built chiefly of hemlock logs and the roof was made of spruce poles and large sheets of hemlock bark. The ground floor of the earliest houses was made of logs hewn on three sides. The best and widest side was laid uppermost and the other two sides were hewn straight to make the floor as tight as possible. The floors of the small attics or garrets of those houses were made of small straight spruce poles laid close together. . . . The very last of the old series of log houses in Andover was built by Moses Brown at the south side of Chance Pond [Webster Lake] before that part of the town was made part of Franklin. Some persons now living [in 1910] may remember the picturesque appearance of the cabin by the brook near Aiken's beach.[13]

New Breton or Andover houses that were built before the completion of nearby sawmills relied on hand tools for the fabrication of any boards they incorporated. Among the first sawmills in the area were two on Punch Brook in Stevenstown, later Salisbury: one built by Steven Chase circa 1743, and another built by Ebenezer Webster in 1761.[14] In general, these mills were too distant from the settlements near Chance Pond (Webster Lake) in the eastern part of Andover to provide sawn boards for the houses erected there. For that reason, the earliest houses in Andover used riven boards instead of sawn boards to cover their roof frames and gable ends. The *History of Andover* describes these houses:

> "Clove" or "riven" boards, that is, boards split from the log and hewn with axe or adze, or shaved with drawknife, were used for many years to cover the roofs of log houses; and to a period considerably later than 1800 they were used for the roofs of sheds and barns. The last construction of this character in Andover, so far as now known, was on a barn built by Elijah Hilton on the farm now owned by Henry W. Kilburn. In 1850 this roof was as sound and substantial as it was rare and interesting.[15]

The *History of Andover* states that the first house in Andover to utilize sawn boards, rather than riven, as a roof covering was that of Edward Ladd, who

> . . . built his first house on a spot about eight rods south of the barn owned

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[13] 15 John R. Eastman, *History of the Town of Andover, New Hampshire, 1751-1906* (Concord, N. H.: Rumford Printing Company, 1910), pp. 40-41.
[14] Alice M. Shepard, *The History of Franklin* (Tilton, N. H.: Sant Bani Press, 1996), pp. 27-28; 63-64.
[15] John R. Eastman, *History of the Town of Andover, New Hampshire, 1751-1906*, p. 41.

> in 1902 by Napoleon B. Bryant. In one respect this house was more pretentious than any other building in town. While the walls were made of logs, the roof was covered with *sawed* boards which Mr. Ladd hauled on a hand sled, three at a load, from the sawmill of Col. Ebenezer Webster on Salisbury "North Road."[16]

Because Webster did not erect his sawmill until 1761, the Edward Ladd house must have been built after that year.

[16] Ibid.