



HVVA is a not-for-profit corporation formed to study and preserve the vernacular architecture and material culture of the Hudson Valley

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The Society for the Preservation of Hudson Valley Vernacular Architecture

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Dutch scene courtesy of Haio Zimmerman of Hausforscher Unterwegs (House Researcher Group)

From the President

We've had an interesting and busy year – a full slate of tours, a workshop, and some good work done on the rather dull work of getting our bylaws in order. Our committees are up and running, and managing business nicely. We had tours every month of this past year, and held meetings in January, April, July, November, and December.

As a result of our work on the bylaws, we've seated a collections committee for the first time. Early on in our history, the HVVA accepted donations of building parts and tools – a small collection, to be sure – but one of importance to us. It remains to be seen whether we pursue collecting physical objects for eventual display – or if we opt to deed these items over to an already-established public collection. We'll address this topic later on this year.

Each of this past year's tours was attended by between seven and as many as 40 people – with the largest

attendance for the Feura Bush tour put together by Roberta Jeracka. The numbers attending that day were augmented by attendance of members from the Dutch Barn Preservation Society, who cosponsored the tour.

In October, John Stevens and I hosted a two-day building documentation practicum at the Bronck farm in West Coxsackie and the Van Alen house in DeFreestville. It was attended by several members, and seems to have been well-received. The ultimate measure of its success will be the contributions of its alumni to the newsletter and the archives!

For those of you who receive this newsletter but never attend a meeting or tour – and that's a large proportion of you (we have to work on that!) – let me give you some idea with respect to the makeup of the group. As of this writing our membership stands at 293. Ken Walton, our VP, crunched the numbers in October

(continued on next page)

(when we had 298 members) and came up with some statistics (*Fig. 1*).

Given our organization's origins as the mid-Hudson branch of the Dutch Barn Preservation Society, it's not surprising to find that 54 % of our members hail from either Dutchess or Ulster counties. But that means that 46% – almost half – of our members call locations further afield home. Most of the remaining counties bordering the Hudson are represented by between 2% and 5% of our membership each. A significant portion of our membership – 11% – hail from states other than New York or New Jersey. Four members (something over 1%) live outside of the US. The website serves a much broader audience, with over 120,000 individual visits to HVVA.org and HVVA.net during the past 12 months! Our website has evolved into a truly important resource.

Looking forward – the Education & Research Committee has put together another slate of interesting tours for this year, scheduled for locations across our entire study area. I think it's important – both for membership and for the continuing education of our core members – to include all

regions of our study area in each year's tours. This year will see our second try at scheduling a bus tour – one was attempted for sites on Long Island some time back – I think we are in a better position to pull it off this time. I'm sure some interesting memories will come out of that trip!

Maggie McDowell keeps bringing to my attention the fact that we have fallen out of the habit of documenting the sites we visit, either by write-ups in the newsletter, or by measuring and photography.

I suggest that each tour organizer submit a brief write-up with photos for inclusion in the newsletter after the fact. This will help the 90% of us who don't attend a tour the chance to benefit from what we've seen. With respect to more thorough documentation, while nearly impossible to undertake during a tour, perhaps the E&R committee can work out a systematic way in which we engage property owners so that we may undertake this work after a visit by our group.

Our finances remain steady, with expenditures pretty much equaling what we've taken in from memberships. I'd like to advocate here for

two pet projects which I'd like to see some discussion (and hopefully – action) on in the committees during the current year. The first is identifying a source of funds for (and then undertaking) a large-scale dendrochronological study of key buildings in our study area (by that I mean structures that by their nature will contribute greatly to our understanding of the evolution of our built culture as a result of knowing their precise dates of construction.) This isn't a new idea – I find reference to it in HVVA meeting minutes dating back to 2006 – yet it is one which remains important, and facilitate the removal of antiquarian assumptions that litter our understanding.

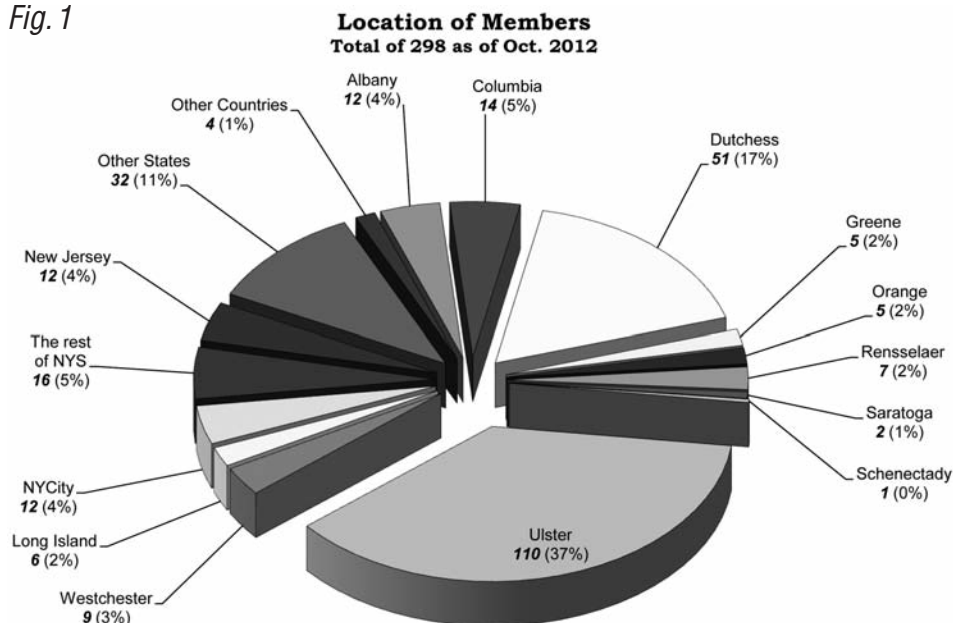
The other is the notion of giving out an annual scholarship for writing undertaken by a student in history on the subject of the built culture of the Hudson Valley. This could be limited to something like \$500 annually, and could be given to the best writing – whether essay, article, thesis, or dissertation, I don't have an idea about how it should be limited – by a college student at one of the several universities that offer history curricula in our region. The best from each would be vetted by the chair of each school's history department, and the Education and Research committee would choose from among the several submissions and make the award. I believe that this would give us a higher profile, create allies in schools and among graduates, promote writing on our field of interest, and expand interest in our work.

Please send notices of upcoming events – including public talks, exhibits, etc., which you think might be of interest to your fellow HVVA members – along to Neil Larson for inclusion in the newsletter and on the website.

I'm looking forward to seeing you – in the field!

Walter Richard Wheeler

Fig. 1



Hudson Valley Vernacular Archetypes: The Wright Homestead, Farmers Mills, Putnam County, New York

By Neil Larson



Fig. 1 – Current view of house from northeast. The north section of the front façade containing the entrance and two small windows to its right represents the extent of the original dwelling.

As it exists today, the Wright Homestead is an amalgam of periods and designs that reflects the development of rural communities in the region from the late 18th century to the present agglomeration of suburban homes and weekend retreats. There is visual evidence sufficient to indicate that the north end of the wood frame house originated as a small story-and-a-half dwelling with a principal room and one or two rear anterooms on the ground floor and a chamber in the attic (*Fig. 1*). The house was constructed without a basement, a feature governed as much by the granite terrain as by design. The front entrance with its high flanking sidelights and two sash windows to its right constitute the original front façade. Wide weatherboard siding appears intact from this early stage and it extends across the front and around the north end and rear, which represent the outside dimensions of the initial building. All that remains of the south end of this dwelling is a ceiling beam exposed on the interior that contains a number of mortises indicating the location of studs once framing the wall. A large fireplace likely occupied the north end wall. It could have served cooking functions, or there may have been a kitchen in a small wing or outbuilding now gone. The story-and-a-half, one-room-plan dwelling with an entrance and two windows on the front façade was a common house type in Hudson Highlands and in other

areas of the Hudson Valley, particularly where British people settled. (Dutch houses were significantly different in form and design.) This three-bay façade or “two-thirds” house was built in a range of sizes that expressed social and economic hierarchies in the 18th-century cultural landscape. Large three-bay houses, two-stories in height and with more rooms represent the high end of the scale, while small story-and-a-half dwellings like the Wright Homestead are examples of the lower rank. Brick and stone exteriors added value and status to the house. Wood framing was a more economical construction method, although log examples of the form were the most basic.

While the three-bay facades of these houses are similar in appearance to the narrow fronts of urban townhouses and village dwellings, the form and design of rural houses were part of another architectural system. The best houses of this group were the grand manor houses of the land owners, such as the Phillipse Manor House in Yonkers, the Van Cortlandt Mansion in The Bronx, and the various Livingston country houses farther north. In general, they are substantial two-story houses with multiple-room plans and formalized five-bay facades with central entrances and decorated exteriors. The three-bay-façade house is a reduction of this model form and thereby reflects the



Fig. 2 – Historic view of house from southeast, c. 1920. The section to the left of the entrance represents an addition, at which time an entire new roof was added. The shed roof extension, containing a kitchen, was added later still.

diminished social status of its occupants. Larger three-bay houses were occupied by individuals of better rank and were part of farms on more productive land. Houses got progressively smaller as social status and land value diminished. In this scenario, the original section of the Wright Homestead represents the dwelling of a lower-class individual on a marginal mountain farm. The house is about as small as the hierarchy allowed; only a log home would have been valued less.

Such a dwelling would have been common to tenant farmers of a lesser sort in the Phillipse Patent, as well as other the Colonial-era manors that dominated the Hudson Valley landscape. However, the Wrights were not tenants and they moved to Farmers Mills from neighboring Dutchess County well after that period and the demise, though not eradication, of leaseholds in the region. (There were a series of tenant rebellions until the tenure system finally was outlawed in the 1840s.) Thus, even after the proprietary establishment was dismantled in Putnam County and freeholders moved in and created communities like Farmers Mills, the traditional hierarchical design of houses persisted. With a family of five and two grandparents occupying it in 1820, as recorded in the U.S. Census taken that year, the early house at the core of

the Wright Homestead is a good illustration of the modest lifestyle of early settlers in the mountainous Highlands region of the lower Hudson Valley.

As the new nation and its new communities matured, economic conditions improved and social relationships leveled in New York. Once-remote areas like Farmers Mills became more integrated in expanded community networks, and that was reflected in the adoption of a more regional architecture. By the mid-19th century, the norm was a larger and more commodious house, still a story-and-a-half in height, with a symmetrical five-bay façade with restrained features fashioned in the prevailing Greek Revival style. (Two-story houses still were reserved for people of higher status.) Trabeated elements were pronounced, that is, post-and-lintel frames for doorways and a tall frieze extending across the upper half-story. This motif also was employed on interior doorways and mantles. The Wright Homestead was enlarged and brought up-to-date in taste in this manner (*Fig. 2*). The deep eaves were added at this time as a new roof was built to span both old and new sections. This shadowy feature shows the influence of the picturesque designs that by this time (c. 1860) were supplanting the sharp-edged Greek Revival forms of the previous generation.

These shallow plan farmhouses were often expanded by kitchens in small gable-roof ells attached to one end. The large shed-roof kitchen appended to the south end of the Wright Homestead is an early 20th-century feature that may have replaced an earlier, smaller ell. The property also contains a barn, now altered following a damaging fire, and a root cellar embedded in the hillside behind the house. The small barn evinces the limited agricultural production of the local terrain. Root cellars are found throughout the Hudson Highlands for topographical, agricultural and cultural reasons that are not yet fully understood.

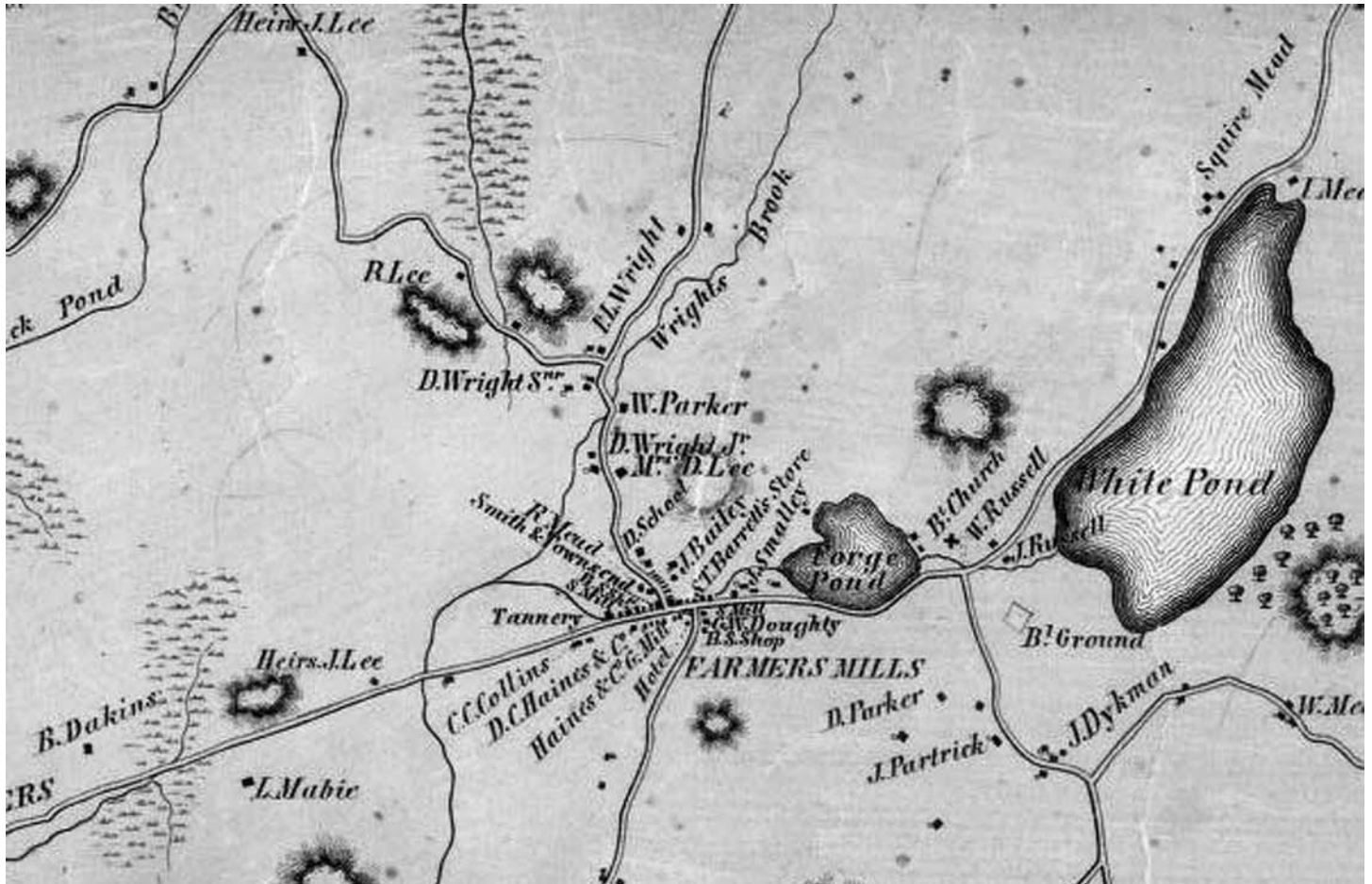
Historical Background

A map of Putnam County published in 1854 indicates that the house was occupied by “David Wright, Snr.” at that time (Fig. 3). It was associated with a large mountain-top farm, later estimated to contain 170 acres, on the outskirts of the hamlet of Farmers Mills, one of the first communities to form in the Town of Kent. When the town was created in 1788 it was sparsely settled by tenants and freeholders who had established homesteads when the entire county was a manor (Colonial proprietorship)

under the jurisdiction of the Phillipse family. According to local histories, the first settlers came from Westchester County and eastern Massachusetts. In his 1886 *History of Putnam County, New York*, William S. Pelletreau described Farmers Mills as a “place, which stands on a small stream, the outlet of White Pond, [that] has been a mill seat from very early times, the first mill having been built, it is said, by one Burton in 1784, and was owned by Joseph Farrington at the beginning of the present century.” The original name had been Milltown; it was changed to Farmers Mills when an association of local farmers purchased the flour mill in 1838. Another county history written by William J. Blake and published in 1849 reported the hamlet contained two or three stores, two taverns, a post office, grist, saw and fulling mills, and a tannery. The Phillipstown Turnpike (now Farmers Mill Road) ran through the hamlet connecting it with Cold Spring and the Hudson River on the west and Patterson on the east.

David Wright’s background is not fully known. He was born in 1782, probably in Fishkill in neighboring Dutchess County, where he was living in 1810. His father may have been Solomon Wright, who is recorded as living in the

Fig. 3 – Detail of 1854 Map of Putnam County showing Farmer’s Mills. Dwellings of David Wright, Snr. and his sons, Isaac L. Wright and David S. Wright (D. Wright, Jr.) are depicted along Wrights Brook in the center, among those of numerous members of the Lee family.



same town. (Based on the name and the location, the family likely came from Westchester County rather than New England.) By 1820 Wright, his wife, Millison Lee, and their three sons had established their homestead in Farmers Mills, which probably was where Millison had been born. The 1820 census also enumerated an older male and female in the household who appear to have been Millison Lee's parents. This suggests that the young Wrights acquired their farm from the Lee family, who fairly dominated the neighborhood. It has not been determined when the Lees arrived in Farmers Mills, but the older northerly section of the house may date as early as the 1780s when the community was first settled.

In 1850 David and Millison Wright's sons, Isaac L. and David S., were recorded in the census as heads of separate households with dwellings depicted on the 1854 map. (Neither of these houses is extant.) Isaac L. Wright had married Abigail Lee, daughter of Absalom and Eunice Lee of Farmers Mills, in 1844 and David S. Wright married Abigail's younger sister, Matilda Lee, in 1848. The eldest brother, Daniel Wright never married; he lived with his parents until they died and then boarded with his brother David S. Wright. The 1850 census records both David Wright Sr. and Isaac L. Wright as owning real estate, while David S. Wright owned none; the latter would have been managing his aging father's farm with the expectation, some day, of inheriting it. As his father's dependent, Daniel Wright was enumerated as a farm laborer. David Wright, Sr. died in 1862, and his wife, Millison, died five years later. A map of Farmers Mills published in the 1867 *Atlas of New York & Vicinity* shows both David S. and Daniel Wright living in their parents' homestead, while Isaac L. Wright maintained his own abode. Evidently, an arrangement was reached between Isaac and David (perhaps as directed in their father's will) that conveyed the parental homestead to David in return for caring for their brother, Daniel, who, it seems, could not live independently. The 1860 Census supports this by attributing \$9,000 of real estate to David S. Wright and none to his father or his brothers. By 1870 each brother was credited with one-third shares, or \$3,000 a piece.

It was around the time of this transition that the old house would have been enlarged and modernized. The additional space was utilized by David S. Wright and his family, while reserving a portion of the premises for his brother, Daniel. David's earlier house was either leased or sold. David S. Wright, his wife, Matilda, and brother, Daniel, lived in the house for the rest of their lives. David died in 1897, with his wife and brother predeceasing him. His daughter, Angeline, inherited the farm, which was conveyed to Smith Worden four years later in response to a foreclosure action. Angeline Wright had married James C. Lee of Farmers Mills in 1873, although in 1880 Angeline and her two young daughters were living with her parents in the homestead. Where James C. Lee was at the time is not

known, and neither he nor Angeline and their daughters were found in a search of the 1900 census. Smith Worden was a long-time resident of Farmers Mills; he held the mortgage, perhaps dating back to the renovations, and he purchased the deed to the property at auction for fifteen hundred dollars. Worden was elderly and unmarried; his 1904 will conveyed the James S. Wright farm, containing 140 acres, to his nephew, John F. Pierce. Pierce resided across the river in Orange County and in 1913 he sold the property to Augustus B. Smalley of Farmers Mills for two thousand dollars. Smalley, whose father, Joshua, had been a witness of David S. Wright's last will and testament in 1890, was 65 years of age and had his own home. He apparently bought the farm for his daughter, Nellie, newly-wed to Charles R. Morris, who the 1920 census identified as a dairy farmer.

The Morrisises sold the farm to Harry and Ethel Lockwood in 1925 and moved to what likely was a better farm in East Fishkill where they lived with their three sons and Nellie's 74-year-old mother, Emeline Smalley. Prior to 1925 Harry Lockwood had worked as a farm laborer on farms in Kent and East Fishkill; the Wright farm was the first he had owned. In 1929 the Lockwoods also bought a farm in East Fishkill and sold the Wright place to brothers Leland C. Ryder and Willis H. Ryder of Carmel, New York, the Putnam County seat. The Ryders were wealthy bankers and real estate investors (their family founded the Putnam County National Bank with the Kents, another prominent local clan), and they bought and sold scores of local farms in this period. The Hudson Valley farm economy had been in decline for decades and the national depression was the final straw for many struggling farmers. The Ryders were in a position to acquire many distressed and, in the case of the Wright farm, transitional properties.

The Ryders apparently were the agents in the subdivision of the Wright farm and the dispersal of its component parts. Their ubiquity in the deed indexes has made the identity of the next owner of the Wright homestead impossible to determine without examining every deed between 1929 and 1971, when the next known owner is recorded. Unfortunately, this gap covers the period when the house was renovated as a weekend retreat, so the individuals who made these changes to the house remain a mystery.

Ownership records in the Putnam County Real Property Office pick up the trail again in 1971 when John Lewis of Farmers Mills sold the house to Michael and Lois Nadel of New York City. The instrument by which Lewis obtained the property has not been located; no deed is recorded in the indexes. The Nadels conveyed it to Dennis H. and Judith Leibowitz, also of New York City, in 1976, and two years later the house was owned by Richard L. Anderson, who had a Concord, California address. The current owners, Ellen Levine and Ivan Strausz, acquired the property from Anderson in 1982.

Vernacular Documents VIII

Harvesting and Seasoning Wood for Building Purposes

By Walter Richard Wheeler

Introduction

This installment of Vernacular Documents originated with the quest to find answers to persistent questions of how timbers were prepared for construction in the 18th and early 19th centuries, or before industrial methods like kiln drying were introduced. In particular, we would like to know when was wood harvested? Was wood “seasoned” before it was tooled into timbers and, if so, what methods were used? And, was there a difference between seasoning of oak and pine and other soft woods? I have often heard that oak, although heavier when green, is easier to work before drying and so wasn’t typically seasoned. Conversely, it’s typically said that pine and soft woods were seasoned for a year or more, and that buildings in which this practice wasn’t observed can be seen to have twisted and checked structural members.

Comprehensive published descriptions for the practice of harvesting and seasoning wood for construction appear only after the middle of the nineteenth century. Previous to this, an ad hoc collection of observations and experimentation characterized the printed references. A chronological review of this material will be contrasted with documentary sources and information collected from dendrochronology reports, which are much more revealing about what practices were followed, as opposed to what was written about these practices. The goal is to arrive at a sense of the most common practices and times of year when trees were felled, and some notion of the kinds of forces at play which influenced decisions to cut trees at times that vary from what might be considered typical practice.

First, let’s look at what published sources from the seventeenth through the nineteenth centuries have to say about the subject.

Published Sources

An early English source was written by Richard Neve and initially published in the late 17th century. His account is interesting for its inclusion of observations regarding specific species of trees and a review of the opinion of ancient writers on the subject.

The Time of the Year for [Felling]...is not usually till about the end of April, (at which Season the Barks does commonly rise freely, and if there be any quantity of Timber fell’d, the Statute obliges us to fell it then, the Bark being necessary for the Tanner) But



Logging in Winter.

Fig. 1 – From J. M. Scribner, *Scribner's Enlarged Lumber & Log Book* (1906).

the Opinions and Practice of Men have been very different concerning the best time to fell Timber; Vitruvius is for an Autumnal Fall; others advise December and January; Cato was of Opinion, That Trees should have first born their Fruit, or at, least should not be Fell'd 'till the Fruit was full ripe, which agrees with that of the Architect [Vitruvius]: And tho' Timber unbarked be indeed most obnoxious to the Worm, yet we find the wild Oak, and many other sorts Fell'd over late, (and when the Sap begins to be proud) to be very subject to the Worm; whereas being cut about Mid-winter, it neither casts, rifts, nor twines; because the Cold of the Winter does both dry and consolidate....Then for the Age of the Moon it has been religiously observ'd...The old rules are these: Fell Timber in the Decrease, or 4 Days after the New Moon; some say in the last Quarter; Pliny says, (if possible) in the very Article of the Change; which hapning, (says he, in the last Day of the Winter Solstice, that Timber will prove immortal:

Columella says) from the 20th, to the 30th Day; Cato, four Days after the Full; Vegetius, from the 15th to the 25th, for Ship-timber, but never in the Increase, Trees then most abounding with Moisture, which is the only Source of Putrefaction.

Then for the Temper and Time of the Day; the Wind low, neither East nor West; neither in Frosty, Wet, or Dewy Weather; and therefore never in a Forenoon.¹

Henry Aldrich published the following opinion in 1789. He appears to have been influenced by the lunar approach advocated by Roman authors.

The properest season for felling timber is from the beginning of Autumn to the latter end of February, when the moon is waning, and the weather temperate. Green or over dried wood requires great labour in working: none is fit for use that has not been laid by some time, and covered over with cow-dung: timber is unfit for making joists, doors, or windows, till it has been cut down three years.²

A member of the Kennebec Agricultural Society took up the subject, reprinting a passage from John Evelyn's *Sylva*, in which he quotes a Dr. Plott and other sources:

Dr. Plott recommends the disbranching [not disbarking] to be done in the spring, before felling, whilst the tree is standing; that is, from May to Michaelmas, and so let it continue till the next spring, and disburthen them, [that is, disbark the trees, & c.] when felled, as the custom is in Staffordshire and the north, for exceedingly contributing to a dry seasoning, freeing it from the attacks of worms and other accidental corruption....If we adopt the theory of Messrs. Buffon [who experimented with trees in the 1730s] and DuHamel, it seems easy to conceive whence the timber of certain trees may become benefitted by a removal of their branches, (while the tree is standing.) If the roots and stem continue uninjured, much superfluous sap may now remain in motion; of which a large portion may be deposited in the pores both of the sap-wood and of the formed wood, so as to improve each of them....If timber can be hardened on foot, according to the French phrase, that is, as it stands, it may be removed at that season of the year, which is most convenient for cutting it down and transporting it. If timber, also, can be seasoned as it stands, it will suffer little from wet, which injures other trees left to be seasoned in the open air.³

The subject was responsible for the spilling of much ink and cutting of many trees (for newspapers – not buildings)

in the early 1820s. Letters and other commentaries on the subject were published by newspapers across the United States, many of whom also copied the latest contribution to the national conversation from other newspapers as well. A sampling of these includes this from Timothy Pickering, in 1821.

...The important question...in relation to the felling of timber trees, is, I am inclined to think, not simply when trees have the smallest quantity of sap; but at what season the sap they contain will most easily escape, or be expelled. The fact...may show this to be in the spring; when the sap is thinnest and flowing in the greatest abundance.

In support of his notion, Pickering offered his observation of the poor preservation of wood harvested in the “old of the moon” in February, and the excellent preservation of oak felled in May.⁴ An anonymous author, who signed his (?) contribution “A Farmer,” suggested that “durability” was the overriding concern in selecting wood, and that

...there is a difference in the durability of the same kind of wood cut at different times. This difference, it is believed by some observing men, is occasioned by cutting down at favorable and unfavorable seasons; the months of February and August are said to be preferable to all others for felling timber, where durability is desirable.⁵

Samuel Preston, writing in 1823, offered the fruits of his experience. He found that June-felled white oak rotted much more quickly than the same wood “felled and hewed in the month of February, when hard frozen.” He cited advice from “an old man from Rhode Island, to adjourn cutting [hemlock] logs until the bark would again peel in the month of October, with the fall of the sap; then, he said, the logs would last forever.” Preston indicated that buildings he constructed in 1790 using hemlock harvested in October remained sound, but those used in a building he constructed seven years later, and harvested in June, were rotten. He offered his observations on white pine as well.

White pine timber should be felled in the winter, when hardest frozen, and the bark hewed off; then the sap part of such logs will remain white and sound several years. If the bark is left on them the sap part will turn black, and the logs be worm eaten. If green white [sic] pine logs are cut in summer when the bark will peel the sap part turns black, the boards mildew and soon rot, as will the logs. A green white pine tree chopped down, will last but a few years, unless felled when frozen, and the bark hewed off.⁶

Joshua Howard, writing in 1835, offered the results of his experience.

During the last twenty years I have been engaged more or less in the preservation of timber, and from my experience am able to say with confidence, the old opinion of the English writers to the contrary notwithstanding, that the best time to cut timber to ensure its durability, is when the tree is in its GREATEST VIGOR; and in this latitude, say middle of June – then the sap is in its most fluid state, and entirely escapes through the several pores of the tree. The idea that the sap of a tree recedes to its roots during winter, is in my opinion a mistaken notion. The sap is distributed through the tree in winter the same as in summer, and circulation never ceases, except with the life of the tree. – The sap in winter is less in quantity and thicker, and owing to its stagnant state, remains in the timber when it is cut in winter, and becomes the principle of its destruction. Let timber for rails, posts, or other purposes, be cut when it is in its greatest vigor, (never [sic] mind the phase of the moon,) and keep it off the ground until seasoned.⁷

In 1858, James Slight and R. Scott Burn weighed in, advocating for what we may call the “sap” theory.

The winter months, and the month of July, are considered the best for felling, as the sap is then believed to be dormant. The researches, however, of M. Boucherie, a gentleman who has devoted much time to investigating the properties of timber, point to midsummer and autumn as the time when the sap is least active.⁸

This interpretation was codified by the 1860s in popular lumbermen’s books such as *Scribner’s Lumber & Log Book*, which went through many editions.

The most suitable season for felling timber, is that in which vegetation is at rest, which is the case in mid-winter and in mid-summer; recent opinions, derived from facts, incline to give preference to the latter season, say the month of July; but the usual practice is to fell trees for timber between the first of December and middle of March. Some experiments are in progress with view to determine the question with regard to oak timber for ordinary purposes.

The tree should be allowed to obtain its full maturity before being felled; this period in oak timber is generally at the age of from 75 to 100 years, or upwards, according to circumstances....Felled timber should be immediately stripped of its bark, and

raised from the ground. As soon as practicable after the tree is felled, the sapwood should be taken off, and the timber reduced, either by sawing or splitting, nearly to dimensions required for use.

The best method of preventing decay is the immediate removal of it to a dry situation, where it should be piled in such a manner as to secure a free circulation of air around it, but without exposure to the sun and wind. When thoroughly seasoned, before cutting it up into smaller pieces, it is less liable to warp and twist in drying.

When green, timber is not so strong as when thoroughly dry. Lumber containing much sap is not only weaker but decays much sooner than that free from sap....

For the purpose of seasoning, timber should be piled under shelter, where it may be kept dry, but not exposed to a strong current of air; at the same time, there should be a free circulation of air about the timber, with which view slats or blocks of wood should be placed between the pieces that lie over each other, near enough to prevent the timber from bending. In the sheds, the pieces of timber should be piled in this way, or in square piles, and classed according to age and kind. Each pile should be distinctly marked with the number and kind of pieces, and the age, or the date of receiving them. The piles should be taken down and made over again at intervals, varying with the length of time which the timber has been cut.

The seasoning of timber requires from two to four years, according to its size. Gradual drying and seasoning in this manner is considered the most favorable to the durability and strength of timber, but various methods have been prepared for hastening the process. For this purpose, steaming and boiling timber has been applied with success; kiln-drying is serviceable only for boards and pieces of small dimensions, and is apt to cause cracks, and to impair the strength of wood, unless performed very slowly.

Timber of large dimensions is improved by immersion in water for some weeks, according to its size, after which, it is less subject to warp and crack in steaming.⁹

This last text is the earliest identified which offered a comprehensive approach to the harvesting and seasoning of wood for building purposes. Now, let’s look at some “on the ground” sources for the practices of builders active in the region.



A Winter Scene in Vermont.

Fig. 2 – From Peter Parley, *Geography for Beginners* (1845).

Manuscript Sources

A small group of account books, journals and manuscripts from the Hudson Valley and adjacent areas survive which preserve references to the collecting of wood for construction purposes and its fabrication into structural components.

The account book of Louis Bevier of Marbletown, Ulster County reveals that he paid workmen for “rough cutting” and “squaring” beams for his house in October 1750. Workmen resumed “rough cutting” for door cases and rafters in the following March. Work at that time included working “in the pine woods.”¹⁰

The construction of the Van Rensselaer Manor house (commonly dated to 1765, because of the tie irons in its west elevation), began in December 1763 with the “cutting and hewing” of wood. Additional materials were procured the following December, 1764.¹¹ It appears that all of the wood used for framing components was harvested in the winter months. It is presumed that the wood was used in construction the following spring; this makes it likely that it was oak. The house had brick exterior walls and so the wood was used for floor joists, interior partitions and rafters.

Alexander Coventry recorded the progress of construction of his house in present-day Columbia County beginning in the late summer of 1786. Cutting of trees began in late August of that year, and hewing of some of the material for sills began immediately. Coventry noted that his neighbor Whitlock was also “get[ting] his frame for a house out,” suggesting that Coventry’s method of collecting building materials, and the time of year he chose to undertake the task, was not unusual. Procurement of wood continued through September. The frame of the house was raised on 28 September, meaning that the longest any of the pieces of wood had seasoned was one month, and much of it was far greener than that.¹² Coventry mentions inquiring after pine specifically. Typically sills and first floor beams were hewn from oak, even when the remainder of the superstructure was pine. Coventry’s house – and perhaps that of his neighbor Whitlock as well – made use of unseasoned wood, including pine.

A letter written by Evert Van Alen, surveyor of the City of Albany and for the Van Rensselaer Manor, records his beliefs regarding the proper time to cut trees:

...with Respect to the cut[t]ing of Timber the Best time is in the last Quarter or the old of the moon

as is Commonly called in March at which time the Sap is Supposed to be in Roots, and the Body of the timber Dry and Hard, So as to Prevent worms from get[t]eng (sic) in and is also Better fo[r] Fuel.¹³

Van Alen didn't indicate which species of tree he was referring to, but "timber" in the time (1824) and place from which he wrote (Rensselaer County) most likely meant either pine or oak. He appears to have been strongly influenced by the lunar approach, and may have arrived at his opinions after reading letters in the popular press.

James C. Holmes, carpenter and farmer who lived in Otsego County but who maintained social and professional connections to the upper Hudson Valley, kept a diary in 1869 in which he recorded "taking a load of lumber to...get it dressed," drawing wood (transporting it, typically on sleds), making trips "after lumber" and selling logs to local sawmill operators from mid-January to early March. Holmes mentioned "moving lumber" and "moving timber" on a few occasions in April; it is not clear, however, if he was referring to materials drawn from a remote site or to wood already on his property. The next mention in the diary of wood-collecting activities was in late October when a friend borrowed his horse for "drawing wood from mill." In early November Holmes drew wood on his own property, including eight loads drawn by a single horse on one day. Again, it is unclear whether or not this material was intended for building purposes, or was being put up for heating. Less ambiguous is his activity in December, when on several occasions he noted "sawing wood in woods" along with an assistant. Holmes delivered some of this material to the local saw mill, where it was converted into laths and other building supplies.¹⁴

A journal kept by Matilda Bergen detailing renovations to the Dockstader-Bergen barn in the Town of Mohawk, Montgomery County in 1889, indicates that "most of [the lumber] was drawn by sleigh from Caroga Lake during the winter [of 1888/89]. This was piled up across the road to the south and most of the carpenter work getting it ready for assembly was done there later." The material used in the barn was pine; the work of hewing it into framing members began in early May.¹⁵ In this particular instance the pine timbers were allowed to season on-site about six months; it is not known however, when the wood was actually cut.

Early twentieth century sources, interviewed by Harold K. Hochschild, lead him to the conclusion that cutting "was delayed "until the sap was down" because softwood logs cut in spring or summer and left lying in the woods during hot weather – particularly pine logs – attract woodworms that bore into them." Some sources alternatively suggested that autumn/winter was preferred because of workforce concerns. Men were more available after the summer, when those who were farmers had their winter crops in, and others who worked in the lumber mills had gotten through the "accumulation of logs driven down the river in spring."¹⁶

One might reasonably assume that account books from sawmills active in the region, a number of which have survived, would provide useful information regarding the times of year that various woods were typically processed. However, a review of these reveals the limitations of this source type with respect to this particular research question. The account book for the sawmill owned by Maurice Goetehuys Hager, located in Blenheim, Schoharie County, and covering the period from April 1854 to April 1873, is a case in point.¹⁷ During the twenty years covered by the account book, the majority of transactions do not specify the type of wood being processed and an analysis of examples wherein species is mentioned is not very revealing:

Table 1. Months and types of wood processed by the Hager sawmill, 1854-1873.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
oak	1	1	1	2	1	3	2		1	1		1
pine	1			1		3			1	1	1	2
hemlock						1					3	
cherry										1		
ash			2	3	4	3	1	1			3	
bass	2		1	1	2	1	1	1		1		3
hickory	1				1							
maple						1						3
beach			1	1								1
elm					1							

Even though only between 15 and 20 percent of the transactions recorded in the account book indicate species of wood being sawn, it can be seen that there is seemingly no relationship between the harvesting time of bass, oak, pine and ash and the arrival of their raw materials at the sawmill, since they are mentioned at all seasons of the year. Alternatively, this may be an indication that wood was being cut irrespective of time of season by this date, although this seems to be contradicted by other contemporary documentation, cited above. Earlier account books may prove more useful for this avenue of inquiry.

Dendrochronology and Oak

A resource that can help document the regional habits of builders in this matter is only recently becoming available. Successful dendro-sampling of structural timbers not only reveals the year which the various components of a building were harvested, but, in the case of oak, the wood itself records the season that it stopped growing. This is because oak grows differentially during the course of a year, creating different cell structures at different seasons.

To date, dendro-sampling of buildings within HVVAs study area – including sites in New York, New Jersey and western Massachusetts – has revealed construction dates spanning the period from 1668 into the early nineteenth century. Twenty of these reports have identified oak structural components with sufficient integrity to determine not only the year, but the season of felling, or cessation of growth (Consult the various reports posted on the HVVA website.) A total of 22 building campaigns are represented by this data set.

While this is at present a small census, we can begin to see the outlines of historical trends. Of the 22 building campaigns, 14 (63.6%) exclusively utilized oak which was harvested during dormant months, that is, between the months of November and February. Documented examples representing wintertime procurement span the period 1668-1814.

As with the Van Rensselaer house, where procurement of oak occurred during the winters of 1763/64 and 1764/65, the construction of the Tullar house in South Egremont, Massachusetts is revealed by dendroanalysis to have occurred during the winters of both 1757/58 and 1758/59. The willingness on the part of the builder to wait for a full year in order to procure additional material is a strong indication of the belief in the importance of wintertime harvesting of oak.

Five of the 22 building campaigns (22.7%) made use of oak procured during the spring-summer of the year. The oak components for Crailo, in Rensselaer, Rensselaer County (1707), the Mabee house (campaigns of 1761 and 1795), the J. & R. Ham house, in Pine Plains, Dutchess County (1791), and the rafters of the Cahn house, in New Paltz, Ulster County (1774) were each harvested during the beginning of the growing season (that is, spring-summer) of their respective years of construction. Together they document an alternative procurement approach which was somewhat widespread during the majority of the eighteenth century. It is possible that these trees were harvested in spring for the purpose of using the bark for tanning. A nineteenth century source (echoing Neve, cited above), notes that

“it...seldom happens that oak is cut down in winter; its bark being so valuable and useful for tanning of leather, that it is found to be more profitable to the owner to reserve the tree till spring, when the sap has ascended from the root, and loosened the bark from the wood, so that it may be easily stripped off; which it would not be were the tree cut down in winter.”¹⁸ If this is in fact the reason why the trees were felled in spring, it remains to say that it was not so compelling a rationale that more than a quarter of documented construction campaigns appear to have taken advantage of it.

The three remaining building campaigns (13.6%) utilized winter-harvested oak in combination with trees felled during other seasons. These include the Terry-Mulford house in Orient Point, Suffolk County (Summer 1715 and Winter 1715/16), the Gardiner-Brown house, East Hampton, Suffolk County (Spring 1746, Summer 1746 and Winter 1746/47), and the Freer-Low house in New Paltz, Ulster County (Winter 1761/62 through Summer 1763). The length of these procurement periods may be due to shortages of locally-sourced materials, economic hardship or other disruptions. It may be the case that in one or more of these examples trees which were found standing dead in the forest were cut, together with living specimens, although this practice was generally discouraged.¹⁹ In addition, it may prove important that two of these three sites are on Long Island.

Adopting Hemlock as a Building Material

Exhaustion of first-growth forests, caused not only by the expansion of agriculture and population growth in the region but also by an ever-expanding need for fuel, was well underway by the beginning of the 19th century. By the 1820s cities including Albany, Troy and New York were experiencing shortages in the availability of building materials.²⁰ An analogous loss of local supplies of first-quality construction materials in rural areas that had been settled before 1800 is documented by the choice of materials observed to have been incorporated into the construction of farmhouses and barns in those areas beginning in the second quarter of the 19th century. Framing materials at these sites were sourced from tulip, hemlock, birch, chestnut, beech, butternut, maple, elm, cherry, and sycamore among other species. The small size of the trees typically utilized – again, a reflection of limited availability – meant that many were used with the bark on, or were left with substantial waxy edges.²¹

Logging in the Adirondacks had commenced at the beginning of the nineteenth century, and was initially confined to the periphery of the region. It was largely a winter-time activity, with cutters beginning their activities after the first frost, and redoubling their efforts when the snow fell, allowing for the use of sleds. Much of the

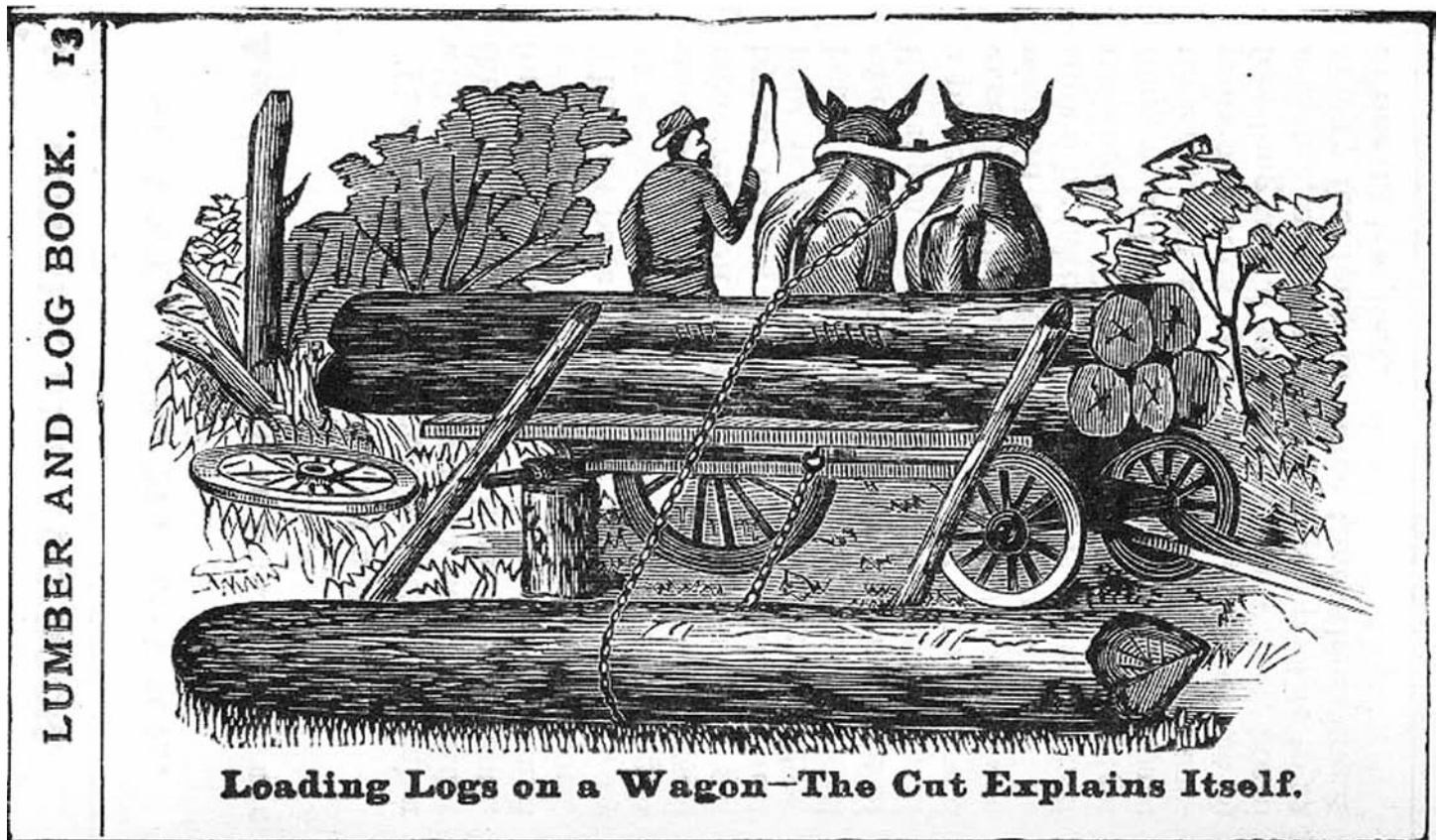


Fig. 3 – From J. M. Scribner, *Scribner's Enlarged Lumber & Log Book* (1906).

wood taken for construction purposes was white pine and spruce. By the second quarter of the nineteenth century tree boles were floated down from Lake Champlain and its feeder canal to the Hudson in the form of rafts or set loose during spring freshets, and were ultimately sawn in mills located in Queensbury or as far south as Albany.²² With the exhaustion of much of the first-growth white pine forest, and facing an expanding need for building materials, hemlock was at last resorted to.

The extensive hemlock forests of the Catskills and the Adirondacks were not initially recognized as sources for building material. The wood was so poorly-considered that tanners cutting the trees for their bark typically left the boles to rot in the forest. However, with the advent of more efficient means of transportation to major markets – including canals and railroads – the value of the wood increased to the point where profit in its being brought to market as a construction material became possible.²³ Hemlock bark (and thus, the tree) was typically cut between mid-May and mid-August, “when the sap flowed.”²⁴ It was also found that denuding the trees of their bark helped them float better as they were driven downstream. Thus the season for cutting was moved from late fall/winter to spring/summer.²⁵

Conclusion

For people looking to procure wood for construction purposes from the seventeenth through the nineteenth century the selection of cutting time was informed by a spectrum of vernacular and anecdotal knowledge, including superstition and more “scientific” approaches. It was also based upon other anticipated uses for products from the tree, namely bark (used in tanning) and the smaller pieces which would have been used for fuel or for other purposes. Availability of cheap means of transport was an overriding consideration in some locales. Trees cut down in remote hilly areas may have been best harvested in winter months, when a cover of snow allowed for sledding or dragging by teams of oxen or horses. Improvements in transportation brought new sources of building material to urban markets, as well as changes to the materials used in building.

The two principal building woods historically used in the Hudson Valley before 1850, generically speaking, were pine and oak. Subsequent to that date, hemlock was extensively used to fill growing demand for building material; it was later supplemented with materials sourced from northwestern Pennsylvania and the south. Oak appears to have been chiefly harvested during

the winter months and (presumably) worked the following spring. The cold facilitated the use of sleds to transport the heavy boles, and preserved much of the moisture remaining in them. Evidence for drying coniferous woods before their utilization in construction is inconsistent, but eighteenth century sources point to attempts to season these trees without felling to avoid insect predation, suggesting that letting them dry where felled had been a common practice before that time. Later sources suggest stacked drying for as much as four years.

Hemlock was, by the second half of the nineteenth century, typically harvested in the spring and summer months. By that time numerous sawmills had been established which converted the boles to dimensional lumber before it was sent to market. Technological changes in the manufacture of lumber contributed to the abandonment of traditional timber-framing methods in the construction of buildings.

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 - 2 Henry Aldrich. *The Elements of Civil Architecture, According to Vitruvius and Other Ancients, and the Most Approved Practice of Modern Authors, Especially Palladio* (Oxford: D. Prince and J. Cooke et al, 1789), 3.
 - 3 Anon ("A Member of the Kennebec Agricultural Society"), "Means for Increasing the Strength, & c., of Timber," in *Papers on Agriculture, Consisting of Communications Made to the Massachusetts Society for Promoting Agriculture* (Boston: Young and Minns, 1803), 38-39.
 - 4 Timothy Pickering. "Felling of Trees for Timber," *The Washington [DC] Gazette*, 2 October 1821, 2. Reprinted from *The American Farmer* of 28 September 1821.
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 - 9 J. M. Scribner. *Scribner's Enlarged Lumber and Log Book* (Rochester, NY: S. E. Fisher, 1906), 10-12. Although quoted from a later edition, editions of the book printed in the 1860s featured text identical to this passage.
 - 10 Neil Larson. "Building a Stone House in Ulster County, New York in 1751," *The Society for the Preservation of Hudson Valley Vernacular Architecture Newsletter* 15:4-6, (April-June 2011), 7-8.
 - 11 Ten Broeck account book, Van Rensselaer Manor Papers SC7079, New York State Library, Manuscripts and Special Collections, Albany, New York.
 - 12 Alexander Coventry. Diary. Typescript at the NYS Library, Manuscripts and Special Collections, Albany, NY. Quoted in Roderic N. Blackburn, "The Persistence of Dutch Culture: Account of Building a Farm in 1787," in Nancy Anne McClure Zeller, ed., *A Beautiful and Fruitful Place: Selected Rensselaerswijck Seminar Papers* (Albany, NY: New Netherland Publishing, 1991), 38-40.
 - 13 Evert van Alen in Green Bush to Henry van Schaick in Lansingburgh, 14 February 1824. Van Schaick Family Papers, 1161-1863, SC 10837, Box 1, folder 2. New York State Library, Manuscripts and Special Collections, Albany, New York.
 - 14 Wayne Franklin. *A Rural Carpenter's World: The Craft in a Nineteenth-Century New York Township* (Iowa City: University of Iowa Press, 1990), 41-51; 65-73.
 - 15 Walter Richard Wheeler. "The Dockstader-Bergen Barn: Journal of a New World Dutch Barn Conversion in 1889," *Dutch Barn Preservation Society Newsletter* 23:2 (Fall 2010), 3.
 - 16 Harold K. Hochschild. *Lumberjacks and Rivermen in the Central Adirondacks, 1850-1950* (Blue Mountain Lake, NY: Adirondack Museum, 1962), 8-9.
 - 17 This account book is in the author's collection.
 - 18 Peter Nicholson, revised by Thomas Tredgold. *Practical Carpentry, Joinery and Cabinet-Making* (London: Kelly and Co., 1856), 58.
 - 19 "Wood which has died before being felled should in general be rejected..." George Talcott et al. *Ordinance Manual for the Use of the Officers of the United States Army* (Washington, DC: J. and G. S. Gideon, 1841), 253. Copied verbatim in J. M. Scribner. *Scribner's Enlarged Lumber and Log Book* (Rochester, NY: S. E. Fisher, 1906), 10.
 - 20 George Tibbits noted in April 1827 that "there is such a press for timber for building in...[Troy] & New York, that the mills have more orders than they can supply." George Tibbits to Elam Lynds, 28 April 1827. George Tibbits Letterbook, Rensselaer County Historical Society, Troy, New York. Builders looking to construct houses in Troy in that year are known to have sourced materials from mills located in Saratoga County among other places.
 - 21 An example of this practice is the Haywood-Craver-Wehnau house in North Greenbush, Rensselaer County (c.1840-55). White birch, hemlock, and oak were among the whole tree boles used, with bark on, as first floor beams.
 - 22 Richard C. Merrill. *Log Marks on the Hudson* (Utica, NY: Nicholas K. Burns Publishing, 2007), 16-17, 22-24 passim.
 - 23 Harold K. Hochschild. *Lumberjacks and Rivermen in the Central Adirondacks, 1850-1950* (Blue Mountain Lake, NY: Adirondack Museum, 1962), 9-10.
 - 24 Peter C. Welsh. *Jacks, Jobbers and Kings: Logging the Adirondacks, 1850-1950* (Utica, NY: North Country Books, Inc., 1995), 5.
 - 25 Harold K. Hochschild. *Lumberjacks and Rivermen in the Central Adirondacks, 1850-1950* (Blue Mountain Lake, NY: Adirondack Museum, 1962), 8-10.

Albany Fifty Years Ago

By Ken Walton



Under this title in the March, 1857 of *Harper's New Monthly Magazine*, Benson J. Lossing (1813-1891) created an essay that introduces the reader to an "Albany Knickerbocker" and relates some interesting reminiscences of Albany. Using engravings from the drawings by James Eights, Lossing's narrator, as he laments the degeneracy and speed of life in the mid-nineteenth century America, takes the reader on a romantic journey through streets filled with quaint Dutch characters, customs, and wonderful architectural buildings of an old city already forgotten by most. One street is described here; expect others to follow.

Pearl Street north of Maiden Lane

The Woodruff House (1) is first seen, and the smaller building (2) next to it was Dr. Woodruff's office. At that time dentistry, as a distinct profession, was not practiced in Albany. Physicians usually connected it with their own. I well remember when I went tremblingly up these steps, sat in the Doctor's leather cushioned chair, and thought my neck was broken when the huge turnkey drew an aching molar from my jaw for the first time. Next to the Doctor's office was a stately Dutch building (3) erected by Mr. William Eights, of the city of New York. Being a Whig, Mr. Eights was compelled to leave the city when the British took possession "of it, in the autumn of 1776. He erected this mansion soon afterward, and resided there for some time. The frame building adjoining was long occupied

by Dick Thompson, as he was familiarly called, who was quite celebrated as a waiter. He used to serve parties at the houses of the Albany gentry, half a century ago. The next house, with terraced gable (6), was the dwelling of Widow Sturtevant, ' in the immediate rear of which is seen the present church edifice, over the congregation of which the Rev. Dr. Sprague is pastor. This is much more modern than the other buildings, and is introduced, in outline, to show to the eyes of the present generation their relative position.

The tall yellow building (7) next to Widow Sturtevant's was then occupied by Dr. C. C. Yates; and its quite fanciful companion of the same color was the residence of Brower, the renowned sexton and bell-ringer of the old Dutch Church, of whom I shall speak presently. The next building (9) was painted a lead color. It was the famous Uranian Hall, then the great school of Albany. It was erected by the Society of Mechanics, whose children were educated there. The school was supported partly by the funds of the society, and for a long time it was the best institution of the kind in the city. On the site of these three last named buildings (8, 9 and 10) the edifice of the Albany Female Academy now stands. That institution was founded in 1814, under the title of the Union School. The Academy was incorporated in 1821, and its first president was the late Chancellor Kent. The present building was erected in 1834.

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The history of measurements

An anonymous account from the Internet. Believe it or not.

American railroad tracks are 56.5" wide (the "gauge") because the English built the first railroads in America and they used that width. Why did they use that width? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used. Why did "they" use that gauge then? Because the people who built the tramways used the same jigs and tools that were used for building wagons which used that wheel spacing.



Why did wagons have that particular odd wheel spacing? Because older wagon ruts throughout England used that spacing, and if they changed it, wagon wheels would break by either falling into or being forced out of the old ruts, which were 56.5" wide.

The old ruts were that size because the roads were built by the Romans, who arrived in England in 54 BC and left about 400 AD. Their wagons, and their chariots before their wagons, used that spacing, and that spacing was used all over Europe and wherever Rome conquered, because their wagons used the identical wheel base everywhere. So the modern railroad track width derives from the Roman chariot.

Why was the Roman chariot track width 56.5"? Because that was the width of a chariot that would equal the width of two "standard" Roman horses. Thus, wagon and horses would fit through the same narrow street. Specifications and bureaucracies live forever!

Such curious dimensions continue today. A space shuttle sitting on its launch pad has two big booster rockets attached to the sides of the main fuel tank. These are solid rocket boosters, or SRBs, made by Thiokol at their factory in Utah. The engineers who designed the SRBs might have preferred to make them a bit fatter, but the SRBs had to be shipped by train from the factory to the launch site. The railroad line from the factory had to run through a tunnel in the mountains. The SRBs had to fit through that tunnel. The tunnel is just wide enough to accommodate a railroad car, and the railroad track is about as wide as two horses' behinds, (and we now know why) so the booster rockets were made to fit.

The major design feature of what is arguably the world's most advanced transportation system was determined over two thousand years ago by the width of a horse's ass!

Calendar of Upcoming HVVA Events

- March 16** Tour of Houses along Passaic River in Lower Bergen County, NJ
- April 20** Tour of Houses in the Town of Poughkeepsie, led by Neil Larson
- May 18** Tour of Historic Properties in Palatine Bridge
- June 15** Richmond Town, Staten Island, NY
- July 13** Hurley Stone House Day & HVVA picnic

For more information, please check www.HVVA.org