



Revisiting the Ethan Allen Homestead: A Closer Look at a Vermont Landmark

Since the Ethan Allen Homestead opened to the public in 1987, there has been a quiet undercurrent of skepticism regarding the building interpreted as the last home of Ethan Allen. Could a reexamination of the building in light of more recent information confirm or debunk the authenticity of this famous relic?

By SCOTT STEVENS AND STEVEN C. MALLORY

As the United States prepared to celebrate its Bicentennial in 1975, Vermont historian Ralph Nading Hill announced a signal event for his state: he had rediscovered the home of Vermont's colorful founder and Revolutionary War hero, Ethan Allen. In the next few years, Hill led a group of volunteers in creating a public historic site that focused on the house. They raised private and state money to add the house and a few acres to the Winooski Valley Park District's existing park at the site, and then to restore the building to its appearance as Ethan Allen would have known it. The restoration meant recreating the earliest version of the building from the original

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STEVEN C. MALLORY is an independent historic preservation consultant specializing in the study and preservation of vernacular timber-framed structures. Based in Shushan, New York, he works in Upstate New York and New England.

SCOTT STEVENS is the Executive Director of the Old York Historical Society in York, Maine. He was the first director of the Ethan Allen Homestead Trust from 1989 until 1997, before which he directed historical museums in New York State and Minnesota.

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parts that had survived multiple renovations. The Vermont Council on the Humanities, and then the National Endowment for the Humanities, made major grants funding the development of the site as a museum. Sadly, Hill died just months before the opening of the museum.

The documentary record of Ethan Allen's Burlington property known by Hill and previous historians offered little specific information about his dwelling. Vermont records showed that Ira Allen bought for Ethan a 154-acre parcel of land in Burlington that had been confiscated from its Tory owner.¹ Surviving in the Stevens Collection of Allen papers is a letter Ethan wrote while still living in Bennington to Ira, then in Burlington, in August 1784, stating his intention to move to the Burlington property the following spring. In it Ethan asked Ira to saw boards for a two-story house whose dimensions would be 24 feet by 34 feet, and to set aside provisions for workers Ethan would supervise.² Ethan did not fulfill his intention to move in the spring of 1785. Those papers also include the two brothers' agreement dissolving the family's Onion River Land Company on May 1, 1787, in which Ira confirmed Ethan's ownership of the Intervale land and promised \$500 worth of house materials.³ Ethan Allen's letter to Stephen R. Bradley written in November 1787, announced that he had moved onto his farm, and described its virtues.⁴ Biographers have concluded that shortly before writing that letter, Ethan supervised the building of the house he had specified in the 1784 letter to Ira. This impression was probably strengthened by a reminiscence of Henry Collins, published in 1858, of the Allen family's stay in his family's home in 1787, during which he said "Mr. Allen was getting his house on the Intervale farm ready for the reception of his family."⁵ Undoubtedly familiar with these sources, Ralph Nading Hill ascribed the date of 1787 to the building he had rediscovered as Ethan Allen's home.

HILL'S ORIGINAL CASE

Although Ralph Nading Hill's reputation, charisma, and enthusiasm swept most people along, his actual case for the house's identity was, by his own admission, circumstantial. The few facts on which it was based could be seen as supporting his attribution, but could also support other conclusions. The case, as Hill stated it in his presentation to the Burlington Historic Sites Committee, was thus:

1. The original deed to the land surrounding the house proves that this was the Ethan Allen Farm.
2. The 34' × 24' dimensions of the original part of the house (subsequently enlarged with an 'L') are precisely those specified by Allen

when he wrote to his brother, Ira, requesting that he saw the boards for it (in his saw mills at the Winooski Falls).

3. The surroundings of the house near the river are all as Allen described them in various correspondence, and the dates when the house was completed and when he moved into it are authenticated.
4. The house is in exactly the location shown in a publication appearing when the memorial tower was erected on the Ethan Allen Farm.
5. Other than the block house the Allens built at Winooski Falls, the Allen house is the earliest house documented as having been built in the lower Intervale. No earlier houses with such characteristics are known to have been built, and to have survived there.
6. The design of the house is typical of cottage architecture of the 1780s. The construction of the roof bears this out. Many of the original materials, as shown in the attic and basement, remain untouched and are uniformly characteristic of the period of the 1780s. These include the masonry, hand-hewn beams and wide boards with marks clearly demonstrating that they were cut at Ira Allen's 'up-and-down' saw mill at the Falls, the only such mill then in the area.
7. A comparison with other houses of the 1780s, with which we are familiar to the smallest details, reveals this house to be a prototype of those built during this period. The present owner of the property, who has owned it for over three decades, is the latest of a succession of owners who have always known it as the Ethan Allen Farm, and the house as the Ethan Allen House. The present owner attests that during the 1940s he removed the massive fireplace which opened into four rooms around the central chimney on the first floor, and that during alterations every detail confirmed the house's age and authenticity.⁶

A skeptic could attack points one through five for vagueness, overstatement, and subjectivity. None of the evidence Hill presented in his sixth paragraph could be used to date the house to a particular decade. The form of the house was one common in southern New England, particularly western Connecticut and Massachusetts, as early as the 1760s and as late as the 1840s. Original materials—hewn beams and vertically sawn timbers and boards, and the surviving original masonry—were the results of building technologies spanning the same period in Vermont. While Ira Allen did have a sawmill, there was no way of proving that the boards Hill observed had been sawn at a particular mill. They might as easily have been brought from a mill further south or from Canada, since Ira was actively trading goods in the Champlain Valley.

The first sentence of the seventh paragraph begged for elaboration. What about the house, one might ask, had they observed and compared to the details of others with which they were familiar?

The “restoration,” more accurately a reconstruction, that Hill oversaw was done in the manner of the colonial revivalists of the early twentieth century. Hill and his assistant, Robert Francis, who had dismantled and reconstructed old buildings for the Shelburne Museum, interpreted features of the structure with a combination of logic and what might be called romantic hopefulness. Where details were missing, they conjectured from their knowledge of other old buildings, introducing salvaged material and handcrafted replacement parts in many places. Some features they simply created based on their ideas about Ethan Allen’s nature. They also imposed a few twentieth-century sensibilities about domestic life into an eighteenth-century setting.⁷

Hill made no systematic effort to record what he and Francis found as they removed nineteenth- and twentieth-century building fabric; nor did he put into writing all their reasoning about such essentials as floor plans, chimney dimensions, or interior walls. Hill cheerfully explained such decisions to visitors during the reconstruction, and noted one or two in a talk titled “The House that Found Itself Out,” delivered to the Center for Research on Vermont. He did not seek the expertise of historic preservationists at the University of Vermont, or submit his decisions to any further peer review by publishing them. Fortunately for the more scientifically minded, Hill hired as bookkeeper for the project Daniel Zilka, then studying in UVM’s Historic Preservation program. Zilka took it upon himself to photograph extensively the work in progress. These and pictures taken by another crew member are the best documentation of the building’s reconstruction.

Hill’s approach touched lightly on or sidestepped the few kinds of physical evidence generally used to establish a building’s age. Nails securing the sheathing and floorboards to framing timbers were mostly of a type with machine-cut shanks and hand-wrought heads. Completely hand-forged nails were, and by many people still are, considered characteristic of buildings in northwestern Vermont erected prior to c. 1800. Hill cited a nail factory in Fair Haven as the likely source of the cut-shank nails, though the exact dates the factory was in operation were uncertain. Hill never mentioned other potentially telling features: techniques used in cutting and assembling the frame, the overhang of the eaves, and the mixture of mill-sawn and hewn timbers. These and other bits of physical evidence suggested to some observers that the house was built in the first, or even the second quarter of the nineteenth century, not the last quarter of the eighteenth century. The only images of the building prior to its mid-twentieth-century version, a published sketch and privately owned photographs, showed a gable-oriented, Greek Revival-style house.⁸



One of the earliest known photographs of the house Ralph Nading Hill identified as Ethan Allen's Burlington home. Taken c. 1905, it shows the mid-nineteenth-century reorientation of the building as a gable-front, Greek Revival cottage. Photograph courtesy of University of Vermont.

Early in Scott Stevens's tenure as the first director of the Ethan Allen Homestead historic site and museum (1989–1997), he spoke to various people whose approach to the credibility of the Homestead ranged from informed reservation to outright skepticism. A Burlington architect, upon being introduced to Stevens by a Homestead trustee, immediately questioned the authenticity of the house, citing the nails. Thomas Visser, then teaching in the Historic Preservation program at UVM, generously shared his knowledge with Homestead paid and volunteer staff on several occasions. He was careful to avoid any strong pronouncements about the building, instead explaining how such characteristics as the nails, joists, rafters, and eaves compared with other, later buildings in the area. Kenneth Zogry, while curator of the Bennington Museum, observed after a visit that the houses the Allens were familiar with during their fifteen years in Bennington, and thus were likely to have wanted to emulate, were quite different from the Homestead. He further noted that the house was a one-and-a-half-story Cape, not

the two-story structure Ethan Allen had specified in the same letter to Ira Allen that Hill cited regarding its dimensions. (Even those dimensions proved troublesome; at 32 feet 7 inches by 22 feet 6 inches, the house came close, but was not “precisely” the 34 feet by 24 feet specified by Ethan Allen.) A professional restorer of timber-framed structures pronounced the frame to have been square-ruled rather than scribe-ruled, a technique one would expect in the early nineteenth century rather than the 1780s.

In addition to the more knowledgeable skeptics, a few people were perhaps too eager to debunk a great-white-man myth, or to discount the much-celebrated discovery in favor of other, lesser-known but better-documented Vermont houses. No one ever challenged publicly the authenticity of the newly designated historic site based on the physical evidence. Most people either accepted Hill’s judgement or quietly dismissed it.

The question of the Homestead’s actual date of construction remained at this uncertain point for several years. (Even during the preparation for this article, one Vermont museum director to whom the authors spoke asked: “Wasn’t that a Victorian cottage?”) Stevens devoted as many hours as he could spare from the diverse responsibilities of directing the site to conduct further research into the documentary evidence. He learned a great deal about the site’s history before, during, and after Ethan Allen’s supposed tenure from records of litigation over his Burlington land among his heirs, opportunistic speculators trying to acquire title, and Ira, who as executor long delayed settling Ethan’s estate. These documents revealed that Ira leased Ethan’s farm to his occasional employee, housewright Josiah Averill, who built a house on the site in 1785 and occupied it with other Allen employees until Ethan moved his family onto the farm in the fall of 1787, apparently into the house Averill had built.⁹

While learning more about the history of the site and the house into which Ethan moved, Stevens never found conclusive documentary evidence that the house Averill built and Ethan Allen occupied was the same building discovered by Hill. In training volunteer guides, Homestead staff discussed the physical traits of the building and encouraged them to present the case for the building’s attribution to visitors as unproven. The Homestead’s interpretation plan emphasized late eighteenth-century life on the frontier rather than the site as a true relic of the great man. The house furnishings, based on a study of Vermont probate inventories, and the surrounding landscape, with its record of human use over many centuries, offered ample material with which to explore history in a half-hour tour. Nonetheless, the troubling possibility

remained that the house, on which the whole site had been based, was actually a nineteenth-century structure Ethan Allen had never known.

Building forensics, like other pursuits incorporating scientific methodology, continue to advance with improved technology, the accumulation of data, and new interpretive ideas. The Historic Preservation Program at the University of Vermont grew under the direction of Thomas Visser during the 1990s, attracting and developing students of increasing sophistication in the field. Occasionally, UVM students examined the Homestead building with Visser as a field exercise. One student closely studied the nail history of the garret floor.¹⁰ However, a comprehensive forensic study of the building has never been done since Hill's rediscovery of it.

REEVALUATING THE EVIDENCE

Following a conversation with Stevens on the subject, co-author Steven Mallory, a freelance historic preservation consultant, conducted a fairly intensive examination of the surviving building fabric for the purpose of producing this article. A graduate of the UVM preservation program, Mallory specializes in the study of preindustrial vernacular buildings and building practices in New England and New York. He examined the house at Ethan Allen Homestead, viewed slides taken by Hill's crew, and examined other, more intact and better-documented structures in Vermont between Manchester and Burlington for comparison.

Mallory's study concluded that the present building clearly existed in an earlier form prior to its Greek Revival appearance, and that the gable-front, classic cottage was in fact the building's second, rather than first appearance. The earliest building survives in only fragmentary form; all that remains is the majority of the frame, some sheathing and roof boards, and some flooring in the garret. Nonetheless, an examination of these fragments and information gleaned from the photographs taken by members of Hill's crew, viewed in comparison to other, more intact and better-documented structures, provide evidence to address the questions raised about the structure.

The Ethan Allen house as it appears in historic photographs with its nineteenth-century renovations was quite similar to hundreds of other Greek Revival-style gable-front classic cottages surviving in the greater Burlington area. After renovations done in 1942 by then-owners the Pease Grain Company (the state in which Ralph Nading Hill found it), the building resembled the many colonial-revival homes built in greater Burlington during the World War II era. However, lurking beneath these alterations survived the undeniable remains of a much earlier building, which clearly took the form of a three-bay, gable-end,

center-chimney form commonly called a “cape” today because of its similarity to buildings common on Cape Cod. Surviving evidence indicates that the gable-front Greek Revival “classic cottage” appearance of the building in the earliest surviving images was not the original appearance, but rather the result of a major renovation in the early-to-mid nineteenth century that involved a complete reorientation of the building. In short, the general body of evidence within the surviving fabric, including overall form, plan, framing, and materials, leans more heavily toward a construction date of sometime in the last quarter of the eighteenth century than in the first half of the nineteenth.

Buildings constructed in the last two decades of the eighteenth century can sometimes be easy to identify because during that period a number of changes began to take place in traditional building practices. These included increased use of sawn rather than hewn secondary framing members (such as rafters, studs, and floor joists), increased regularity and uniformity in the construction of the timber frame itself, and the incorporation of commercially available, machine-made nails for the first time in architectural history. Also, the use of drop-girt framing or a “knee wall” on the eave sides of one-and-one-half-story houses became increasingly popular in eastern New York and western New England during this period. The construction of a knee wall involves the use of posts taller than those found on traditional “low-posted” capes, which raise the front and rear plates usually between two and three feet above the plane of the second-floor joists. This framing technique increases headroom under the eaves and increases the amount of usable floor space on the second floor. It became quite popular in frontier areas because of its practicality. This type of cape is often referred to as “high-posted” rather than the earlier “low-posted” variety, in which the front and rear plates remain on the same plane as the second-floor joists.¹¹

The frame of the Ethan Allen Homestead exhibits a twelve-post system, comprised of four three-post bents. This framing plan had been popular in New England since the seventeenth century, and was used continuously until well into the nineteenth century with only subtle changes in joinery practices.¹² The building features gable-end orientation and a framed knee wall along the eave façades. The frame was clearly laid out for the construction of a massive central chimney stack, as framing allowances for the main stack and hearth crib survive in the first-floor decking. The frame features hewn primary members (posts and girts) and sawn secondary members (second-floor joists, rafters, studs, and braces). In these respects, the frame of the house is not much different from hundreds of more complete surviving examples of one-

and-one-half-story, three-by-two-bay, center-chimney houses scattered throughout western Connecticut (where the Allen brothers grew up), Massachusetts, southern Vermont, and eastern New York.

The differences between what Ethan asked Ira to have built in his 1784 letter and the structure we see today must be considered, especially because Hill cited the letter. The variations in exterior dimensions might be set aside as trifling (4 or 5 percent off), but the house is technically one and one half, rather than two full stories. While seen by some as a substantial difference, it remains uncertain what exactly was meant by “two stories” in eighteenth-century parlance. Describing houses in terms of half stories appears to be a fairly modern practice. In Mallory’s experience researching historic structures, houses generally appear described in historic records as being either one or two stories and seldom or never “one and one half.” Therefore it is likely that the word “story” may have referred to residential floor space and not necessarily cubic footage. If this were the case, the building in question might have been considered a two-story structure in the eighteenth-century mind.

Regardless, documentary evidence suggests that the house Ethan stipulated in that letter was never constructed as specified. Ethan’s plan to move to the farm in the spring of 1785 clearly changed, since he continued to operate from his base in Bennington until 1787, embroiled in various political pursuits. At the same time that a lease and later testimony show Ira to have put a housewright to work on the property, Ethan and Ira negotiated the dissolution of the Onion River Land Company. In the surviving document of their agreement, Ira agreed to furnish Ethan with \$500 worth of building materials, among other things.¹³ In the early 1800s, Ethan’s widow, Fanny, and her husband Jabez Penniman sued Ira, executor of Ethan’s estate, for her widow’s portion. In an account recorded by their attorney, Fanny stated that the house materials were never delivered.¹⁴ One could conclude that whatever structure housewright Josiah Averill built, and the Allens moved into in the fall of 1787, was probably a “starter” structure meant to provide shelter until something more suitable could be built.

The building in question, while a small farm cottage by the standards of southern New England at the time, was, in fact, a substantial house by frontier standards. Many, if not most settlers in the frontier areas of Vermont and eastern New York built small, one-story frame or log cottages with one or two rooms until their situations improved. Settlers often enlarged or replaced these somewhat temporary structures later.¹⁵ The basic size, shape, and form of the house in question are similar to those buildings constructed by others at Allen’s socioeconomic level

in Vermont at that time, such as the oldest section of Rokeby, built in Ferrisburgh about 1783. The large, center-chimney house form of two full stories as understood today, was not nearly as common as the cape form in the years following the Revolution, and appeared far less frequently in frontier areas than in the better-established communities of Vermont until as late as 1800.

The “high-posted” or knee-wall profile of the house might catch the eyes of some skeptics, as many people associate this construction feature with later building types. However, the use of the knee wall in the construction of one-and-one-half-story “high-posted” houses appears to have arrived in western New England and northeastern New York by this period both as an influence of Dutch construction practices in the Hudson Valley and through the evolution of English practices in western New England. Therefore, while the presence of a knee wall often indicates nineteenth-century Federal and Greek Revival-period construction in eastern New England, this is not always so in western New England and New York. The knee wall had been used by the Dutch as early as the mid-seventeenth century in the Hudson Valley. Many aspects of Dutch construction practices influenced building practices in western New England in the seventeenth and eighteenth centuries. It is not clear whether the use of the knee wall was directly adopted from Dutch designs or whether this practical feature was developed more independently by housewrights working in the English tradition in western New England in response to frontier conditions in the late seventeenth and early eighteenth centuries. Regardless, the knee wall became a common design component for one-and-one-half story houses in western New England in the eighteenth century, and by surviving examples appears to have become almost as common as the low-posted variety by the Revolutionary period.¹⁶ Hundreds of examples survive in western Connecticut and Massachusetts, many of which date back as early as the second quarter of the eighteenth century. Moreover, numerous well-documented examples of New England-style center-chimney capes incorporating the knee wall survive in Washington County, New York, and in Bennington and Rutland counties in Vermont, which date to the last quarter of the eighteenth century.

In Bennington and Rutland counties along historic Routes 7 and 7A, two major thoroughfares dating back to the late eighteenth century, numerous houses survive that stood during Ethan Allen’s lifetime and that exhibit gable-end, high-posted, center-chimney construction similar to that of the Ethan Allen Homestead. Indeed, Allen presumably passed some of these buildings while traveling between Bennington

and Burlington in the 1780s. These include the c. 1789 Deming House on Route 7A in Manchester and the 1783 rear portion of Rokeby, on Route 7 in Ferrisburgh.

The Allen brothers were born in Litchfield County, Connecticut. They also spent more than a decade in Bennington, Vermont, prior to moving to the Burlington area in the mid-1780s. Many other people from western New England also headed north to Vermont following the Revolution, as well as many New Yorkers, who were leaving behind the bitter disputes over land ownership in the Hudson Valley. It stands to reason that these people would have brought familiar building forms with them when they headed north into Vermont.

The frame of the Ethan Allen Homestead incorporates the use of sawn rather than hewn second-floor joists and roof rafters. The lumber was cut to basically uniform dimensions and bears parallel saw marks, perpendicular to the length of the stock, which were created in a water-powered sawmill incorporating a sash-type blade carriage. Hill saw this as favorable evidence, because Ira Allen had a sawmill of this type on the Winooski River. Indeed, sawn framing members are consistent with a building constructed in the third quarter of the eighteenth century, as well as with much earlier and later structures. Sawn dimensional lumber appears in the form of joists and studs in buildings in eastern New England that date to the last half of the seventeenth century. The Dutch also used sawn lumber for roof rafters and joists well before the Revolution, and the use of sawn framing members appears regularly in buildings throughout western New England and eastern New York that date to the late eighteenth century, particularly in smaller buildings that did not feature widely spanned or steeply pitched roofs. The use of sawn second-floor joists appears to have become at least as common as the use of the hewn variety by the 1780s.¹⁷

The manner in which the frame of the building in question was cut and assembled incorporates scribe-rule techniques, but shows a tendency toward the later square-rule method in some aspects. The frame is fairly neatly laid out, with rafters and joists appearing at slightly irregular intervals and the joints cut to fit individually. This indicates that the frame was wrought using the earlier scribe-rule method rather than the square-rule method, which evolved at the tail end of the eighteenth century and features uniform joints and parts that fit interchangeably. However, the use of sawn lumber and fairly regular spacings in the building show motion toward the developing square-rule framing method, which was more or less ubiquitous by the first decades of the nineteenth century. Comparison to other buildings in the Burlington area strongly suggests that if the frame had been cut in the nineteenth

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Rokeby, showing the original 1783 house which became the back ell of the main house, added in 1814. Photograph by Steven Mallory

century there would be much greater regularity in the layout, joinery, and overall timber dimensions. It is interesting to note that the garret-level framing and joinery of the rear ell of the Wells-Thorn House in Deerfield, built as early as 1720, is very neatly laid out, features very regular spacings, incorporates a knee wall, and is not substantially different than at the Ethan Allen Homestead.

The apparent original floor plan of the Ethan Allen Homestead, including the layout of the frame and evidence indicating the original locations of room partitions, is consistent with late-eighteenth-century work. However, there are reasons to question the accuracy of the restored floor plan. The building was constructed initially as a center-chimney structure with gable-end orientation. The first-floor joist system survives with the masonry opening for the large center chimney, and empty mortise pockets indicate the original locations and general dimensions of a large kitchen fireplace on one side of the chimney and a smaller parlor fireplace on the other side. Hill and Francis interpreted rot in a joist on the west side of the masonry opening to indicate the presence of the kitchen hearth there, Francis surmising that water from scrubbing the hearth bricks would have seeped down and rotted the joist. Photographs taken by Daniel Zilka, however, show that the mor-



Ethan Allen Homestead after Ralph Nading Hill's crew removed twentieth-century exterior finishes to reveal original sheathing, and had just begun applying wooden roof shingles. The earliest orientation of the building is indicated by door and window openings. Photograph courtesy of Ethan Allen Homestead Trust.

tise pockets for the hearth are much further apart on the east side of the masonry mass than on the west side, indicating that the larger kitchen hearth was actually on the east side. A formal entrance hall was located on the front or south side of the chimney, and a service or utility entrance was located on the opposite, or north side. The apparent original plan was quite similar to most other center-chimney capes of the late 1700s, including the original, rear section of Rokeby.

One significant factor supporting a construction date in the late eighteenth rather than the early nineteenth century is the original orientation, evidence of which survived later changes made to the building. Openings in the original sheathing boards, uncovered by Hill and Francis and photographed by Zilka, clearly indicated that the building was initially gable-end oriented and featured a symmetrical, three-bay front façade with a centrally placed front door. This orientation was changed in the renovations that took place in the mid nineteenth century, when the original front door on the south façade was replaced with a window, and the windows on either side of it were closed up and covered. The evidence of this earlier façade orientation, when aligned with the

apparent original floor plan, clearly shows that the building existed in an earlier form prior to the Greek Revival appearance that shows up in the oldest images of the building. Changes were made in the plan as well; most notably, relocating the original stairwell into what became the front hall opening into the west gable-end façade, which had been created from a portion of the old kitchen. The center chimney apparently survived this wave of renovations, being removed in 1942. The nineteenth-century renovations also included extending the eaves and enclosing them with decorative box moldings. Prior to this point, the building most likely had flush rake boards in the gables and front and rear eaves.¹⁸

Physical evidence of changes in buildings often coincides with documentary evidence of changes in economic circumstances or ownership. Surviving documents suggest that the scale of the Allen farm remained the same from the last quarter of the eighteenth century until the 1820s. In a 1787 letter, Ethan Allen noted to Stephen Bradley that he had about forty acres under cultivation.¹⁹ Tax records show that the amount of improved land remained forty acres during the occupancies of Jabez and Fanny (Allen) Penniman (1794–1799) and Ormsby family members (1799–1814), probably because of the limited ability to market farm produce. Not until the 1820s, during Cornelius Van Ness's ownership, does it seem that the farm production began to increase, probably because of the construction of canals and increased shipping opportunities in the Champlain Valley.²⁰ This could have been the earliest period when updating the structure became feasible. However, the exterior appearance of the building in the earliest known photographs suggests a renovation in the mid nineteenth century, perhaps coinciding with the property's changes in ownership in the 1850s or 1860s.

Interestingly, a dearth of early nail holes in framing members in the garret and the kitchen area of the house indicates that those two areas of the building may have been left unfinished for several decades, perhaps until the early-nineteenth-century renovations. This, too, is not unusual for early New England farmhouses. For example, one half of the front, two-story formal section of the Wells-Thorn House, built circa 1751, remained completely unfinished until as late as 1806. Many surviving Revolutionary-era farmhouses in Vermont and northeastern New York show evidence of having been left unfinished on the upper floors until much later in their histories. It would not be surprising to find that Allen left the garret of the homestead entirely unfinished during his lifetime, and that his chilly, drafty kitchen consisted of open stud walls and bare sheathing that did not see plaster or wainscot until after his death, when the building was renovated.

The lack of fully hand-forged nails in the surviving building fabric has led many observers to the conclusion that the building cannot date to the eighteenth century. A conditions assessment prepared in 2001 by an historic preservation consultant notes the nails as uncharacteristic of the 1780s.²¹ However, the use of machined-shank nails does not necessarily point toward a later construction date. This type of nail actually appears in hundreds of buildings constructed in western New England and New York just after the Revolution. In fact, the hand-headed, machine-shank nail enjoyed a fairly short period of use, for the most part confined to the 1780s and 1790s. The machine-cut shank was invented in the early 1780s, but nail-making technology advanced quickly to include a machined head as well as shank by the late 1790s.²² The hand-headed, machine-cut-shank nail seems to have appeared on the scene rather suddenly in Washington County, New York, in 1783, and by evidence in surviving buildings, not before. It appears there in numerous well-documented houses dating from 1783 to about 1795. Numerous houses in Vermont dating to the 1780s also feature the hand-headed, machine-cut-shank nail. These include the oldest section of Rokeby, built in Ferrisburgh in 1783, which exhibits exclusive use of the machine-cut-shank, hand-headed nail in the original flooring on the second floor. After 1795, the fully machine-made nail appears to have become quite common. By the 1810s and 1820s the fully machine-made nail had replaced the fully and partially forged nail in most building construction, except in instances that required clinching.²³

CONCLUSION

Physical evidence in nails; the framing technique; the mix of sawn and hewn timbers; and the form, plan, and scale of the house at the Ethan Allen Homestead, can all be seen as consistent with 1785, when Josiah Averill built a house at Ira's behest, the house that Ethan Allen occupied from 1787 until his death in 1789.²⁴ While none of the evidence can positively date the house to that specific year or decade, it points more strongly to a pre-1800 construction date than many people have previously believed. The evidence that Mallory finds indicates further that, regardless of the exact original date of the present building, the current version does not reflect the original appearance as closely as it could. In addition to the kitchen being incorrectly oriented, it is likely that the house was even cruder at the time of Allen's occupancy than the version Hill and Francis created, with no finishing on part of the first or any of the second floor. Ethan Allen, his second wife Fanny, the children of both his marriages, and black and white hired hands, likely lived in cramped, cold conditions we would find rough today

even for a camping trip. There is reason to believe that this structure would have been supplanted by, or become the ell of a grander home had Ethan Allen lived longer or had his brother Ira fulfilled all of his part of their 1787 agreement.

What would constitute proof of the house's exact age? Dendochronology might date more precisely the surviving framing timbers. Otherwise, like many historical questions, this one will be subject to further review and reconsideration by future generations. With this study, we believe we have bolstered a case that Ralph Nading Hill made on scanty evidence. In a happy coincidence of Hill's "gut" feelings and current methodology, he may well have gotten it right.

NOTES

¹ "Certificate from Esquire Ira Allen," Mary E. Nye, ed., *Sequestration, Confiscation, and Sale of Estates, Vermont State Papers* (Montpelier, Vt.: Secretary of State, 1941), Volume VI, 376–7.

² Ethan Allen to Ira Allen, 31 August 1784, Ethan Allen Papers, Henry Stevens Collection, Vermont State Archives, Montpelier, Vt.

³ Ethan Allen and Ira Allen contract, 1 May 1787, Ethan Allen Papers and papers on Ethan Allen's estate in Ira Allen Papers, Henry Stevens Collection.

⁴ Ethan Allen to Stephen R. Bradley, 6 November 1787, Ethan Allen Papers, Henry Stevens Collection.

⁵ *Burlington Free Press*, 19 June 1858.

⁶ Ralph Nading Hill and Sterling D. Emerson to William R. Preston, Jr., Chairman, Burlington Historic Sites Board, 27 January 1975. Copies of this letter and manuscripts of Hill's talks are in the files of the Ethan Allen Homestead Trust, Burlington, Vermont.

⁷ Examples of salvaged material included floorboards on the first floor and the kitchen fireplace surround. Conjectured elements included transom lights over the doors, planks covering the interior kitchen walls, and details of the central chimney. Hill and Francis created a chamber on the second floor where there was no physical evidence of one, on the assumption that Ethan Allen's teenage daughters would have had their own room.

⁸ Prints of photographs of the house in the early twentieth century may be seen in the collections of the Ethan Allen Homestead Trust. Originals are in the hands of descendants of Charles F. LaCasse, tenant farmer at the site from 1905 to 1909. A sketch appeared in Justin Smith, *The Struggle for the Fourteenth Colony* (New York and London: Charles Putnam Sons, 1907), 1: 376.

⁹ Court records of litigation over the property between 1802 and 1814 are available on microfilm at the University of Vermont. The legal journal of Udney Hay, the attorney who represented Ethan's widow Fanny and her husband Jabez Penniman in those suits, contains much valuable information. The journal is in the Udney Hay Papers, MS 152, Vermont Historical Society. Records of depositions given by Intervale residents and other Burlington contemporaries of Ethan Allen are in private collections. Copies and transcripts of all these materials may be seen in the files of the Ethan Allen Homestead Trust.

¹⁰ Betsy Loftus, "Ethan Allen Homestead Second Story Floor Analysis," 9 December 1991, History Department, University of Vermont, and Ethan Allen Homestead Trust.

¹¹ James L. Garvin, *A Building History of Northern New England* (Hanover, N.H.: University Press of New England, 2001), is a good source for general information on early New England building practices.

¹² A publicly accessible example of early knee-wall construction is the rear wing of the Wells-Thorn House at Historic Deerfield, which dates to c. 1720. This one-and-one-half-story building features a framed knee wall, and the overall framing layout and joinery techniques visible in the garret are not substantially different from those of the Ethan Allen Homestead.

¹³ Ira Allen lease to Josiah Averill and Jonathon Butterfield, 2 May 1786 Ira Allen Papers, Henry Stevens Collection. Ethan Allen and Ira Allen contract, 1 May 1787.

¹⁴ "X. Minutes taken at Westminster from Mr. and Mrs. Penniman," Udney Hay's legal journal, Udney Hay Papers.

¹⁵ Thomas C. Hubka, *Big House, Little House, Back House, Barn* (Hanover and London: University Press of New England, 1984), 44–47.

¹⁶ Images of buildings incorporating knee-wall construction, dating from the mid- to late eighteenth century and showing the influence of both English and Dutch design, can be seen in J. Frederick Kelly, *Early Domestic Architecture of Connecticut*, (New Haven, Conn.: Yale University Press, 1924), plate XXXI.

¹⁷ This statement is based on Mallory's observation of extant historic structures. To date, unfortunately, little scholarly material has been written on colonial Dutch building practices.

¹⁸ It was common for the flush rake on earlier buildings to be extended in the early to mid-nineteenth century. In addition to the practical purpose of better water drainage, eave overhangs became stylistically popular in the nineteenth century as an element of both the Greek Revival and Gothic Revival styles. They were often added in replacement of deteriorated flush rake boards on many older houses.

¹⁹ Ethan Allen to Stephen R. Bradley, 6 November 1787 (see note 4, above).

²⁰ Burlington Tax Records, Special Collections, University of Vermont Library.

²¹ Douglas Porter, "Ethan Allen Homestead—A Conditions Assessment Report," July 2001, Ethan Allen Homestead Trust files.

²² Maureen K. Phillips, "Mechanic Geniuses and Duckies: A Revision of New England's Cut-Nail Chronology," *Association for the Preservation of Technology Bulletin* 25:3–4(1993): 4–16.

²³ The process of clinching a nail involves driving the nail through the face of an object, such as a door, then bending the tip around and driving it into the back of the object. The clinched nail forms an overall U-shape in profile, which is impervious to loosening over time. Clinching is nearly impossible with cut nails, as they tend to break when bent. However, forged nails are extremely elastic and withstand bending very well.

²⁴ Authors of Ethan Allen biographies currently in print relied on Ethan and Ira Allen's correspondence for the scanty information they provide about Ethan's home in Burlington's Intervale. More information can be gleaned from the court records of litigation over the property between 1802 and 1814, available on microfilm at the University of Vermont, and from the papers of Udney Hay, the attorney who represented Ethan's widow Fanny and her husband Jabez Penniman in those suits. Hay's papers are in the collections of the Vermont Historical Society. Records of depositions given by Intervale residents and other Burlington contemporaries of Ethan Allen are in private collections. Copies and transcripts may be seen in the files of the Ethan Allen Homestead Trust.