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## The Society for the Preservation of

# Hudson Valley Vernacular Architecture

October - December 2018

# **Newsletter**

Vol. 21, No. 4



#### From the President

At our June meeting the notion of joining our group with the Dutch Barn Preservation Society was brought up by one of our trustees. This proposal has been raised a number of times during the past several years by myself and others. A bit of background will help in understanding why such a thing might deserve our consideration.

#### **Background**

The Dutch Barn Preservation Society (DBPS) was established in the late 1980s by a group of vernacular architecture enthusiasts, many of whom were involved with timber framing. It originated in a class at Hudson Valley Community College led by Shirley Dunn, that took as its subject New World Dutch studies. It was inspired in this by the New Netherland Institute (now the New Netherland Research Center), initiated in 1974 by Charly Gehring (a founding member of the DBPS) and by the 1986 tricentennial of the City of Albany's charter, which was commemorated with a scholarly exhibition and monograph. Peter Sinclair, founder of the HVVA, was an early member of the DBPS, and for a long time was one of its trustees. In the late 1990s, the Society for Preservation of Hudson Valley Vernacular Architecture (HVVA) was formed by Peter as the Mid-Hudson Chapter of the DBPS. The initial intention of the group was to facilitate a more focused study of and advocacy for the barns and agricultural buildings of the mid-Hudson

region than the DBPS was able to provide, and had grown out of a group known as the "Barn Enthusiasts" – also headed by Peter – who had arranged more than 20 barn tours in the mid-Hudson region between 1993 and 1995.

The scope of interest of the new DBPS chapter quickly expanded to include all vernacular buildings built in the mid-Hudson region, and by the time the group received its provisional charter in 2000, it had adopted an even more inclusive statement of purpose to reflect a broader geographical scope and the name "Society for the Preservation of Hudson Valley Vernacular Architecture." In more recent years, the DBPS has also broadened its interests, seeking to understand the role of New World Dutch barns in a wider cultural context, and as components of agricultural landscapes that include a number of building types. Because its purpose is to study these resources wherever they are found, its geographic scope is larger than that of the HVVA. Conversely, because it includes vernacular structures built in a defined area (the Hudson Valley) but without regard to building type or period, the scope of the HVVA's interests does not have the temporal boundary that limits the DBPS's work.

These differences noted, it has become increasingly clear over the years that the study interests of the two groups have converged. In practice, the HVVA has largely limited its study to cultural resources associated with the New World Dutch, although there is no stated intention in our charter to do so. The DBPS has increasingly incorporated house tours into their field trips as a part of their expanded interests. Typically the HVVA and the DBPS co-host at least one tour a year and the memberships of the HVVA and DBPS have a significant overlap; perhaps as much as 50% of our membership also belongs to the DBPS.

### Moving forward

Unlike past meetings, during which a proposal to merge the two organizations met with inaction, at the aforementioned June meeting it was resolved to appoint a committee of four, tasked to represent HVVA at a meeting with representatives of the DBPS – if that group was open to such a notion – in order to enter into preliminary discussions on the matter. Roberta S. Jeracka, Neil Larson, Rob Sweeney and I were appointed to our committee. John Ham and Sheryl Griffith were subsequently added to the group.

The DBPS subsequently met in August, and similarly appointed four people as representatives. It should be noted that two of the four DBPS representatives are

also HVVA members, and that four of the six HVVA representatives have been or are DBPS members. The two groups met on 21 October, with the only goal being to figure out if the notion of a union of our two groups was even possible or desirable. Both contingents went away from the meeting encouraged at the potential benefits of such a joining of forces, and with identified tasks. Among these was to inform the memberships of both organizations of our thoughts on the matter, and to solicit a vote by our respective memberships to approve (or not) the continuance of these efforts.

The two committees met a second time on December 1st to continue these discussions; it is the plan of the HVVA's committee to present these initial findings and our recommendations at our Annual Meeting for a vote in January. Again – this won't be a vote on a specific proposal of how to merge the two groups – rather the vote is intended to gauge the level of support among the membership for such a merger, and will inform your committee re whether or not they should go forward with this work.

Potential benefits to the HVVA and its members arising from a merger would include the attainment of an absolute charter and 501(c)3 status, the latter of which would help to further our educational goals, and permit us to receive donations and apply for grants for research projects (such as dendrochronology), speakers and publications. Benefits to the DBPS and its membership include the opportunity to continue the promotion of the preservation of New World Dutch barns and other agricultural buildings. Being an older organization with – to put it frankly – an aging membership, the goals of the DBPS would be more effectively served by the increased energies of this combined group.

#### And...

On other fronts, I hope you've all had the opportunity to visit our new website at hvva.org. Please join me in extending gratitude to Sheryl Griffith and Donna Brown for all their work in bringing this project to fruition. Recent updates to the site include the uploading of a complete run of Living History, a journal published and edited by HVVA founder Peter Sinclair between 1991 and 1995. Find them under "Resources" at http://hvva.org/livinghistory.html.

Finally, I'd like to extend a warm thanks to Bill McMillen and John Stevens, long-time board members who have decided to round out their service with the end of their current terms in January 2019.

## Kip-Van Winkle House - Rutherford, Bergen County, New Jersey

By Carla Cielo

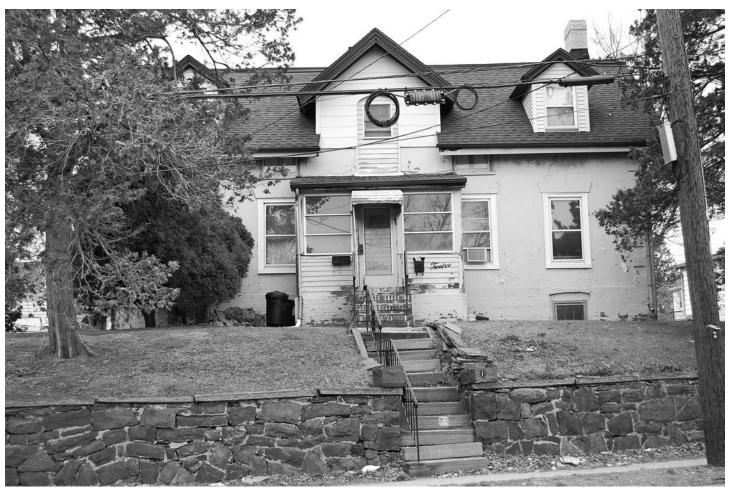


Fig. 1 – View of house from east. (Photo by Carla Cielo, 2018)

There has been much confusion over the construction date of the Kip-Van Winkle house at 12 Meadow Road in Rutherford, New Jersey, which unfortunately is located within a redevelopment zone and slated for demolition or preservation by relocation (*Figs.1 & 2*). Historian and author Rosalie Fellows Bailey suggested a construction date of 1743, but this has been mis-interpreted. There is a rare datestone from 1710 in the back wall of the niche of the arched chimney cribbing in the basement that is also misleading (*Fig. 3*). Stylistically, the house dates to the Federal period, ca. 1800.

The Kip-Van Winkle house is a one-and-a-half story, stone Dutch farmhouse with a gambrel roof. Stonework on the end walls extend up to the base of the

gambrels, which are wood framed. The five-bay street façade has a central entry. The house faces east (slightly off axis towards the south) towards the Hackensack Meadowlands. According to Bailey, the house was distinguished by "fine cut stone with quoins." 2 The sandstone quoins and window and door headers and sills on the front are finished with vertical grooves. They are proud of a plastered surface, which was considered a premium front finish on stone houses in Bergen County during the period. The north end wall is constructed with dressed sandstone ashlar including an elevated basement capped by a stone water table; basement windows have arched brick headers. The stone masonry on the lesser sides, the rear and south gable end to which a wood frame wing was attached, are composed of smaller, undressed stones (Fig. 2).



Fig. 2 – View of house from northeast. (Photo by Carla Cielo, 2018)

Fig. 3 – Date stone. (Photo by Carla Cielo, 2018)





Fig. 4 - Historic view, ca. 1900. (Author's collection)

The size of the house, gambrel roofline, first floor ceiling height and remaining interior window trim are consistent with a ca. 1800 construction date. The central dormer and the extended eaves were added ca. 1850 after Daniel Van Winkle purchased the farm. The renovation included verge boards and an ornate front piazza (*Fig. 4*), long since lost to another layer of design upgrades in the suburban era (*Fig. 5*).

The first-floor center hall plan is a room-and-a-half deep with fireplaces in the larger front rooms. The smaller rear rooms often were used for bed chambers. The fireplaces have been sealed off. Federal-style window trim remains at the rear, northwest room on the first floor. The current staircase was added to the center hall when dormers and bed chambers were created in the garret. Originally, the staircase was tucked in the rear of the center hall, not prominently placed in the front.

The basement beams are massive. They are hewn oak and span front to back with a posted carrying beam under the partition between front and back

rooms above. The first level floor boards remain intact under layers of modern flooring (the underside is visible in the basement). Stone-arched chimney bases are in place under both parlor fireplaces; both are sized for Federal-period fireplaces.

The historic photograph of the house shows a smaller, one-story wood-frame wing attached to the south gable end set in from the façade (Fig. 4). It is reputed to have been the original house, built possibly as early as 1710 or 1743, as suggested by prior accounts and the datestone. Hendrick Kip (1720-1796) probably built the earlier house after his marriage to Jannetje Banta in 1741. He is believed to have descended from Hendrick Hendrickson Kip (1600-) who immigrated to New Amsterdam from Holland. The 1710 datestone with HR initials has not been accounted for as of yet.

Since the stone house lacks evidence of a cooking hearth, the kitchen was most likely located in the wood-frame wing. There are several filled doorways remaining on the south gable end wall that would have connected the two sections. The 1710 datestone



Fig. 5 - Streetscape with house in foreground, ca. 1950. (Author's collection)

could have been moved to the basement chimney arch when that section was demolished in the 20th century. It does not appear to be original to the masonry since the remainder of the niche is plastered and the plaster is damaged on the periphery of the datestone.

Today, the house has a forlorn look. Its former grandeur is hidden behind an enclosed porch and mustard colored paint. Some question the importance of saving the house since clearly it is not as old as some may have hoped. In my opinion, the Kip-Van Winkle house is invaluable to the history of Dutch stone house architecture in Bergen County and to the history of Rutherford and should be saved. It is one of only four Dutch stone dwellings remaining in Rutherford. The house is associated with a very early Dutch family. The sandstone construction with two different patterns and a hierarchy of detailing, is a significant feature of Bergen County stone houses built in the Federal Period. Its distinguishing characteristics illustrates the character of the best houses in the county and how the traditional Dutch design evolved in after

Revolutionary War to reflect both a connection to the past and an embrace of modernity.

The quality of workmanship in the hand-chiseled stonework cannot be duplicated today. The paint can be gently removed with non-caustic chemical paint removers and hand scraping. The house is structurally sound. Future uses are surely possible. The developer should also be required to fund full documentation of the building and its site, including an archaeological investigation of the site of the older house. The property is likely to yield information important to the understanding of farm life on a bluff overlooking the Hackensack Meadowlands in the early- to mid-18th century. Clues may be found as to how the wealth was acquired to build the remaining edifice and if the earlier section was built in 1710 or the early 1740s.

#### **ENDNOTES**

<sup>1</sup> Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern, New York (1936; rpt. NY: Dover Publications, 1968), 302-302.

<sup>2</sup> Ibid.

# A Survey of Scribe-rule English Barns

# in Washington County, New York

By William Krattinger; survey work undertaken with Molly R. McDonald

### **Synopsis**

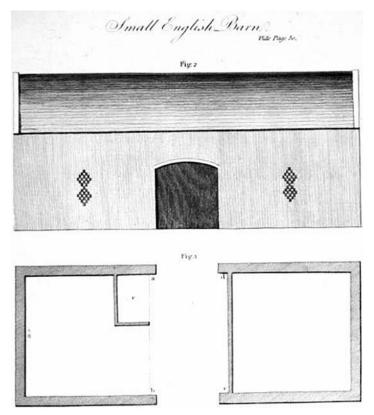
Like the New World Dutch barn, the English or "Three Bay" barn is an icon of early American vernacular architecture and was once a prevailing building type in New York's agrarian landscape. Derived from distant counterparts in England but modified in response to a new environment and agricultural circumstances. this traditional building type proved well adapted to the conditions of early farming in America's Northeast. The English barn accommodated the storage and processing of grain and was also used to store hay and to quarter farm animals. It was a central feature of many early New England and New York farmsteads and common to areas populated by people of New England cultural origin. The internal division of the plan into three principal bays, the central of which served as an all-important threshing surface for grain and a drive floor for off-loading wagons, was straightforward and born of practical necessity. In its typical form, one of the outer bays was given over to a hay mow; a loft for hay was also provided for in the opposite bay, above the stables that occupied that part of the plan. While variation within the larger typology is not uncommon, the overarching form was a self-contained gable-ended building 30 ft. deep with 40 ft long eave-wall elevations.

While the precise Old World origins of this barn type aren't entirely clear, it is generally acknowledged to have become a patent form in England by the seventeenth century, if not earlier, with examples erected in stone, brick or with wood frames. Eric Arthur and Dudley Witney in their work, The Barn: A Vanishing Landmark in North America, illustrate an example published in the waning years of the eighteenth century in England by its Board of Agriculture, indicating that both the name and basic three-bay form were by that time well established (Fig.1).1 It was described in that source as "...a small barn, according to the common construction used in most parts of England for the smallest farms." In England the type was largely employed for hay and grain storage and grain processing, while in the New World the type would be modified to also accommodate animal stables. In 1781 William Pain, whose English builder's handbooks were a popular source for American builders in the last decades of the eighteenth century, published a framing plan for a barn in his Carpenter's Pocket Directory (Figs. 2 & 3).2 That example,

measuring 42 ft. long on its eave walls by 28 ft. broad on the gable ends, illustrated the basic three bay configuration constructed with four transverse bents, with characteristic tie-at-plate English joinery and king-post roof trusses. Although Pain articulated a barn form with numerous parallels to those constructed in America, by the last quarter of the eighteenth century the type was already firmly established in English-settled areas of the Northeast.

English barns were built in great numbers in Washington County, New York, into the nineteenth century and represent the legacy of the region's early settlement by considerable numbers of settlers who arrived there from Massachusetts, Connecticut and Rhode Island both before and after the Revolution (Figs. 4 & 5). Barns of this type built in Washington County prior to the 1820s were erected when wheat cultivation remained

Fig. 1 – Elevation and plan for a "Small English Barn," *Communications to the Board of Agriculture*, vol. 1, Plate V (London, England: W. Bulmer & Co., 1797). Reproduced in Eric Arthur & Dudley Witney, *The Barn: A Vanishing Landmark in North America* (NY: New York Graphic Society, 1981), 59.



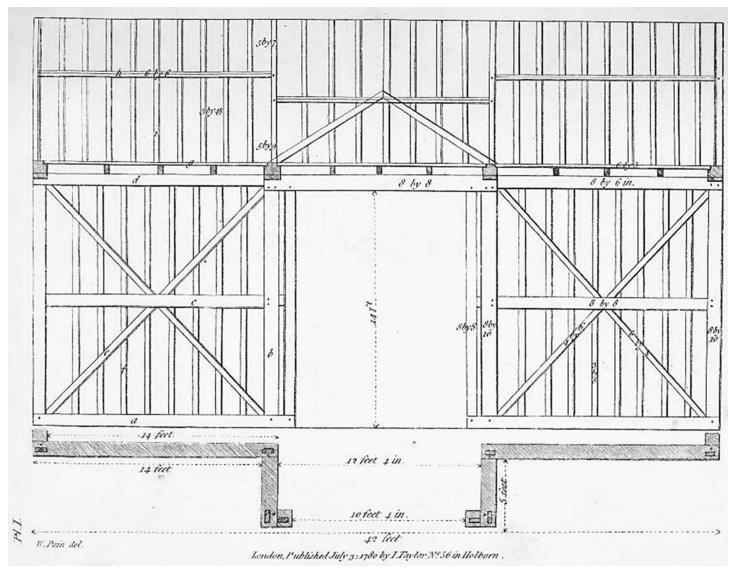


Fig. 2 – "The Elevation and Part of the Plan of a Timber-built Barn," in William Pain, The Carpenter's Pocket Directory (London, England: 1781), Plate I.

a central staple of regional agriculture in eastern New York. Wheat cultivation there collapsed during the following decade in the face of insect and fungal blight, soil exhaustion, and increased market competition.3 During the first guarter of the nineteenth century, while wheat farming remained profitable, the popularity of the traditional English barn in Washington County was challenged by a new form, the swing beam barn, which provided a larger threshing surface and increased hay and grain storage capacity.4 Many examples of the more conventional English barn which pre-date the broad acceptance of the swing-beam barn type nevertheless remain in the landscape for study and analysis, and this surviving stock indicates that a broad array of framing solutions were employed to erect buildings of this type in the county prior to ca. 1810, after which time square-rule framing became increasingly common.5 While sometimes built very differently in terms of structure, these buildings nevertheless largely functioned in like manner; the basic form and internal arrangement largely transcended differences in framing preferences, as manifested in the various bent typologies and roof frames observed and discussed below.

#### **Overview of Observed Examples**

The following analysis is drawn from observation of 21 scribe-rule Washington County barns, of which 17 represent the standard three-bay type. The earliest English barns in Washington County have scribe-rule timber frames indicating a presumed date of construction in the eighteenth or early nineteenth century. Most, but not all, adhere to the accustomed plan and dimensions of this type, measuring roughly 30 ft. by 40 ft. in plan and being divided internally into three asymmetrical bays. The 40 ft. dimension corresponds with the building's eave walls, through which animal-drawn wagons

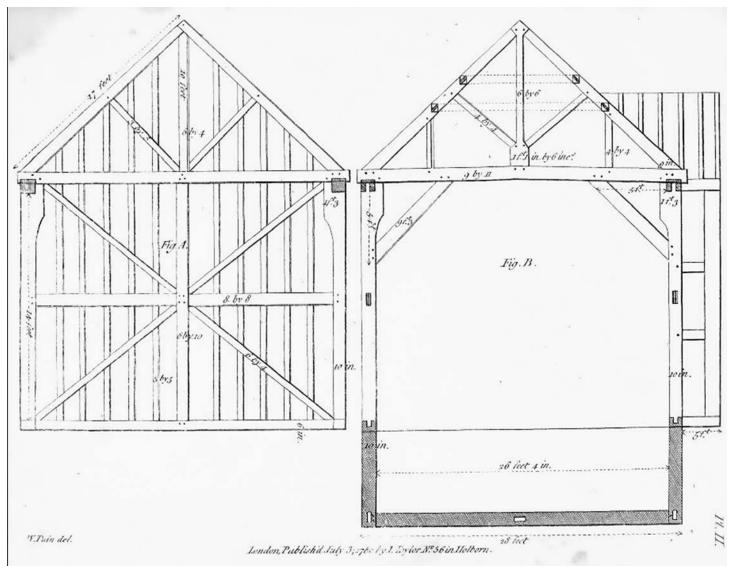


Fig. 3 - "The Elevation of the End and the Section of the Barn" in William Pain, The Carpenter's Pocket Directory (London, England: 1781), Plate II.

could enter and exit by means of large paired doors positioned in relation to the center bay. It was within this central bay that grains such as wheat were threshed by hand using flails, typically by two people working in tandem, on what was typically a 12 ft. wide floor that extended the full 30 ft. depth of the building. Winnowing followed, and by the early nineteenth century was increasingly facilitated by the use of mechanical fanning mills, which may have affected the orientation of barns relative to the prevailing winds and thus their placement in the landscape. The dimension of the center bay afforded sufficient room for flailing grain but was not likely wide enough to facilitate effective animal treading, another means by which grain could be separated. This required animals, typically horses, to be carefully guided over the unprocessed grain on the threshing floor, either threshing it with their hooves or by means of a drawn roller device. Bundled sheaves of wheat were

stored in a loft above the center bay prior to threshing, on poles longitudinally spanning the tie beams of the two internal bents. Characteristic of the early English barns surveyed in the region, but hardly uncommon elsewhere, is the decidedly asymmetrical arrangement of the three-bay plan, whereby the threshing and drive floor bay is flanked on one side by a bay that is typically twice the size of that on the opposite end of the plan. This asymmetry is among the characteristics that assist in identifying buildings of this type in the landscape, much as the gable end shadow line often intimates whether the end bents have tie-at-plate or dropped tie beams. The larger bay, roughly 18 ft. wide by 30 ft. deep, functioned all or mostly as the principal hay mow; in some examples framing evidence indicates a section of this bay was either partitioned off for livestock or given over to a granary for the storage of processed grain. The 10 ft. wide by 30 ft. deep bay on the other



Fig. 4, and Fig. 5 (next page) - Small three-bay barn, Easton. Combines all dropped tie-beam bents with a roof-framing system of New England precedent.

end accommodated animal stables and was directly accessible from the exterior, via a door. Later examples of the type typically exhibit a more symmetrical arrangement of bays. The exterior sheathing was typically vertical boarding secured with nails to horizontal girts and in a boarding groove in the underside of the top plate on the ends.

English barns displaying the standard 30 ft. by 40 ft. or 3:4 dimension were erected with four transverse bents which defined the three-bay plan. Evident within the surveyed examples in Washington County are three general framing solutions used in erecting a four-bent frame for this building type: a) frames in which all the bents have tie-at-plate joinery; b) those with all dropped tie beams; and c) those in which a combination of the two framing methods was employed. In examples of the latter type the two internal bents have dropped tie beams while the end bents are of the tie-at-plate type, employing English tying joints, using either jowled or tapered posts. The use of complex tie-at-plate joinery was of medieval English origin and indicative of the building methods introduced into this region by carpenters trained in this tradition, while the dropped tie beam is more characteristic of New World Dutch building traditions and the state's early Dutch and German

population. While the dropped tie beam completely supplanted the more laborious tie-at-plate framing solutions rooted in English carpentry traditions following the advent of square-rule framing in the early nineteenth century, it bears noting that New England framers were already using dropped tie beams in the eighteenth century for certain framing solutions.8 As such, it should not be assumed that builders necessarily adopted this framing method following their arrival in this region, where New World Dutch building traditions exerted an early influence, particularly in southern parts of the county. Remaining examples of New World Dutch framing in Washington County, employed for both dwellings and agricultural structures. chronicle this particular influence on the vernacular landscape and offer evidence of the mingling of these distinctive traditions. What is certain is that the dropped tie beam was being employed for traditional English barns in Washington County prior to the advent of square-rule framing.

Washington County English barns have at times been referred to as "Scottish" barns, and many were in fact erected on farms settled and improved by Scottish and Scotch-Irish pioneers who formed an important ethnic component of the area's early settlement. However,



those qualities which affiliate these buildings culturally with Scottish building or agricultural traditions remain undefined, if they exist at all. Although some of the region's early Scottish and Scotch-Irish settling families came directly to the Province of New York from Scotland and Northern Ireland, many came from previously settled areas of Massachusetts, as well as the Highlands area of the Hudson Valley, and as such had already been immersed in a new cultural and agricultural landscape since departing their native lands. The choice of a building form well-suited to regional agricul-

ture requirements would have thus been an easy one. The region's early English barns also display a variety of solutions in their roof framing. They include a) the common rafter/purlin plate type, the most common thus observed; b) common rafter pairs with collar ties and no purlins plates; and c) common rafter systems with neither collar ties or purlin plates. The latter system, whereby massive rafter pairs were used without purlin plates or collar ties, has also been observed in a number of English barns in the Pittstown area of northern Rensselaer County, which borders the Hoosick River



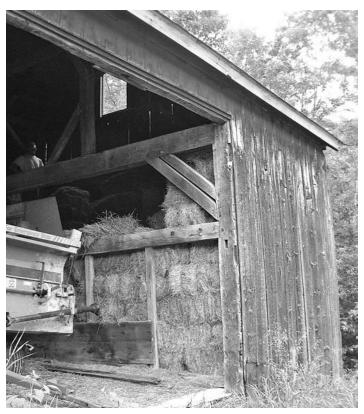
Fig. 6, and Fig. 7 (next page) – Steele Barn, Shushan vicinity. A highly intact example of the most common early type, combining end bents with English tying joints and dropped-tie internal bents flanking the threshing floor.

and southern Washington County. Rarer yet was one barn which exhibited a principal rafter/principal purlin/common rafter system characteristic of New England building traditions, the only example of its type thus far observed (Figs. 6 & 7). Interestingly, this roof frame was combined with an all dropped-tie beam frame and is located on an Easton farm where a New World Dutchframed outbuilding also remains. Ridgepoles were not observed as a standard or common feature but are seen occasionally on both scribe and square-rule barns in the region.

While barn frames were erected in a variety of ways to achieve an otherwise largely standardized form, a few characteristics appear common throughout, including a post height of roughly 12 ft. and the use of white oak for posts. The surveyed buildings suggest that white oak was the most desirable and predominant wood species used in erecting the superstructure and, in particular, the principal uprights of the frame as well as bracing. In some examples, rafters were also fashioned from oak. In three examples, paired braces were employed at major post-tie beam intersections, the braces arranged either one above the other or, in one instance, side-by-side on the post. Pine was also a common building material and most often employed for roof frames, where its relative lightness, compared

to hardwood species like oak, was advantageous. As for the marking of joints to ensure the proper reassembly of the frame prior to raising, an important aspect of the scribe-rule framing system, marriage and carpenter marks encountered were more often than not rendered with a race knife, across the joint, though chiseled numerals were also observed. Some barns either retain, or display clear evidence of, small pentice projections above the wagon doors. A similar feature, though more substantial and with corresponding short side walls, appears in Pain's published example.

Within the surveyed group are five somewhat anomalous examples that deviate significantly from the more established traditional English barn typology. Of these five, one is a four-bay example employing all dropped tie beams. Three were early examples of what later emerged as a standardized typology, the swing-beam barn, the popularity of which corresponded in large measure with the acceptance of square-rule framing. Two of the swing beam barns were built with substantially larger threshing bays then characteristic of English barns, measuring nearly 30 ft. wide, the continuous floor being made possible by a centrally placed, clear-span swing beam. Another anomalous example had an 18 ft. wide threshing floor, six feet wider than the standard dimension. Of larger scale then the standard



(Photos by William Krattinger)

English barn type, it was still of the three-bay type with four bents, all with dropped tie beams, and would appear to illustrate the desire for a more spacious threshing surface within the conventional English barn form. By the early nineteenth century this impetus would be satisfied by the adoption of swing-beam barns, which in this region typically added 5 ft. of additional width to the center section of the building and were built in a standardized manner.

Also worthy of note is at least one example in which both square-rule and scribe-rule joinery were employed by the builder. A barn located in Salem, combining both tie-at-plate end bents and dropped tie beam internal bents, was of scribe rule construction, excepting the braces, which were cut on the square rule, an indication of the acceptance of new joinery methods by the builder responsible for the framing, albeit hesitatingly and on limited terms. In one example in Easton, the opposite condition was observed; in that case the frame was all square-ruled, except for the braces, which were scribed.

### **Patterns Within Observed Examples**

This survey, while by no means exhaustive, has nevertheless yielded some initial baseline information relative to Washington County's earliest extant scribe-rule

English barns. Clearly this was a pervasive regional form that proved adequate for grain-based agriculture and for quartering a limited number of animals during the eighteenth and early nineteenth centuries. The form did not, however, require a homogenous framing approach, and instead could be achieved through a variety of framing concepts based on a builder's training or preference. Early analysis suggests the scribe-rule English barn with three-bay asymmetrical plan and a combination of tie-at-plate and dropped tie beam joinery was common in the region (Figs. 8 & 9). This type adhered in large measure to the established 3:4 wall ratio and 10/12/18 ft. interior plan. Examples, of which eight have thus far been identified, have been surveyed in the towns of Hebron, Jackson, Salem and White Creek. Roof frames were of either the common rafter/ purlin plate type or the collared common rafter type: the former system was clearly established in the region by the turn of the nineteenth century and became ubiquitous after the adoption of square-rule framing. This particular subtype, combining both bent types, did not necessarily develop in the region independent of New England; at least one pre-Revolution example has been observed in Massachusetts. 10 The evidence indicates that a gradual abandonment of the complex English tying joint was already underway for barn construction well before the widespread acceptance of square-rule framing.

Examples of barns erected with all tie-at-plate bents have been observed in Hebron, Whitehall and Hartford, and demonstrate the more standard New England approach with all four bents being of the English tying joint type. Buildings framed in this manner were commonplace in New England into the early nineteenth century and examples also survive in other parts of New York, among them Suffolk County on eastern Long Island. Most curious of these is the Hebron example. which employed a common rafter roof frame without purlin plates or collar ties. There are additionally two barns which employ tie-at-plate framing but not in the conventional sense, with English tying joints; these are examples of so-called "level assembly" and are located in White Creek and Cambridge. In the Cambridge example the tie beams and plate meet above the post, but the latter does not flare outward towards the top, as is the case in the triple bypass joint.11 Instead, the tie beam is mortised directly into the plate where the two meet above the post.

A barn located in White Creek is an example that employs all dropped tie beams and a roof frame consisting of collar-tied common rafters. It is one of four examples of the traditional English barn type thus

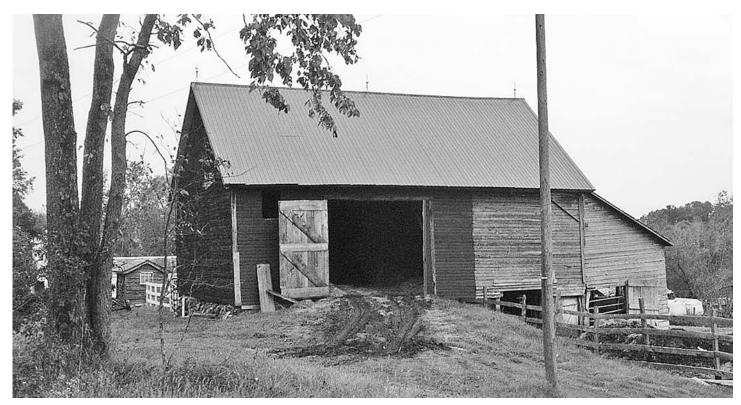


Fig. 8, and Fig. 9 (below) – Barn, Salem vicinity. Example of the standard type employing both English tying joints and dropped ties.

(Photos by William Krattinger)

far identified in Washington County built entirely with dropped tie beams. This grouping is of particular interest as representative of the traditional type as built, at an early date, without tie-at-plate joinery. The author is not presently aware if any examples of scribe-rule English barns with all tie-below-plate joinery have been identified in New England. Of this group one of the four surveyed examples used wedged half-dovetail joints, a variation of the traditional through-mortise joint, which provided increased tensile strength. Perhaps most interesting of this group is the Easton example previously cited, which measures slightly less than the typical dimension, it being 26 ft. by 38 ft. in plan. It is thus far unique in its use of all dropped tie beams and a principal rafter/principal purlin/common rafter roof frame. The framing suggests a builder of New England origin who retained a traditional roof framing concept but adopted the simpler tie-below-plate system for the bents.

While difficult to substantiate, it is probable that first-hand familiarity with New World Dutch building traditions in New York factored into the ultimate abandonment of established tie-at-plate building systems, a process that was underway prior to the advent of square-rule framing, particularly in parts of western New England where these New England and New World Dutch cultures interacted. The English tie-at-plate framing system, with its considerable complexity, was also at times challenged by practical consider-



ations, among them the tendency of this joinery to fail under certain environmental conditions which differed from those in England. Evidence such as that presented by the historian James Sexton nevertheless indicates that in areas of southwestern New England

English-trained builders were already employing new framing solutions inclusive of the dropped tie beams in the 18th century. Further analysis is required to comprehensively understand New World Dutch influence on the evolution of English-based framing traditions.

### **Surveyed Examples**

#### **General Classification**

### Bents with all tie-at-plate joinery

T/Hebron English barn/three bay with tying joints
T/Hartford English barn/three bay with tying joints
T/Whitehall English barn/three bay with tying joints
T/Cambridge English barn/three bay with level assembly
T/White Creek English barn/three bay with level assembly

#### Bents with all dropped tie beams

T/White Creek
T/Cambridge
T/Cambridge
English barn/four bay with dropped tie beams
English barn/four bay with dropped tie beams
T/Easton
English barn/three bay with dropped tie beams
Swing beam barn with dropped tie beams
T/Argyle
Swing beam barn with dropped tie beams
T/Jackson
English barn/three bay with dropped tie beams
English barn/three bay with dropped tie beams
T/Jackson
English barn/three bay with dropped tie beams

# Barns with combination of tie-at-plate and dropped tie joinery

T/White Creek English barn/three bay with tying joints/dropped tie beams English barn/three bay with tying joints/dropped tie beams T/Salem T/Hebron English barn/three bay with tying joints/dropped tie beams T/Salem English barn/three bay with tying joints/dropped tie beams T/Jackson English barn/three bay with tying joints/dropped tie beams V/Salem English barn/three bay with tying joints/dropped tie beams T/Salem English barn/three bay with tying joints/dropped tie beams T/Salem English barn/three bay with tying joints/dropped tie beams T/Easton Swing beam barn with tying joints/dropped tie beams

#### **ENDNOTES**

- <sup>1</sup> Eric Arthur and Dudley Witney, The Barn: A Vanishing Landmark in North America (Toronto, Canada: M.F. Feheley Arts Company Limited, 1972), 59. Elevation and plan for a "Small English Barn," Communications to the Board of Agriculture, vol. 1, Plate V (London, England: W. Bulmer & Co., 1797).
- <sup>2</sup> William Pain, The Carpenter's Pocket Directory (London, England: I. Taylor, 1781), plates I and II.
- The importance of wheat cultivation to the agriculture of the region, and its rapid demise after 1830, is well documented in the historical record. As noted by the preeminent Washington County historian of the nineteenth century, Dr. Asa Fitch, Jr., it was the arrival of the wheat midge that delivered the final crippling blow to the already declining fortunes of the region's wheat culture.
- 4 See William Krattinger and Molly McDonald, "The Swing Beam Barn in Southern Washington County, New York," Timber Framing 103 (March 2012).
- <sup>5</sup> Defining the period of transition between scribe and square-rule framing has not yet been comprehensively addressed; ca. 1800-1810 is often acknowledged as the general time frame in which the latter became more commonly accepted. Future dendrochronological survey work will prove critical in providing concrete data from which to draw more precise conclusions at the regional level.
- 6 The barns included in this survey are located in the towns of Argyle, Cambridge, Easton, Hartford, Jackson, Salem, Whitehall, and White Creek.
- 7 Advertisements for mechanical fanning mills first appeared in area newspapers in the 1790s.
- See James Sexton, "Tying Joint Evolution, 1690-1790," Timber Framing 36 (June 1995). Sexton indicated the use of dropped tie beams at an early date for house framing in Connecticut, as part of the framing of large two-story houses with integral lean-tos.
- 9 See William Krattinger, "Revisiting Richard Babcock's Norumbega Barn," Dutch Barn Preservation Society Newsletter 28:2 (Fall 2015), 1-10.
- <sup>10</sup> Jack A. Sobon, Historic American Timber Joinery: A Graphic Guide (Becket, MA: Timber Framers Guild, 2002), 9, fig. 4.
- 11 Ibid, 16, figs. 28-29.
- 12 Ibid, 8.

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### **Hudson Valley Dutch architecture...**

...is alive and well on the New York State Thruway. Capital Region Welcome Center opened at the New Baltimore travel plaza in November.



#### **Upcoming Events**

**January 18** HVVA Annual Meeting, location and time to be announced.

February 16 Annual Maggie MacDowell Memorial Lecture,

Woodland Pond, New Paltz, 10 am, speaker to be announced

March 16 Study Tour in northern New Jersey led by Carla Cielo,

details forthcoming.