# DUTCH BARN PRESERVATION SOCIETY NEWSLETTER



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**New World Dutch Barns of** 

## Bergen County, New Jersey (Part two)

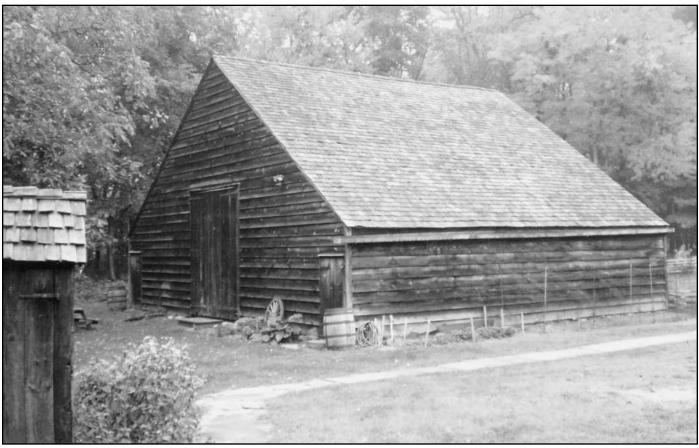
By Gregory D. Huber

The first article in this two-part series¹ focused on topics such as the geographic range and characteristics of New World Dutch barns in the various counties of New Jersey. Part two includes a brief discussion of 17th-century barns in Bergen County, and is followed by a consideration of some of the forces that determined regional variations in construction details. Unusual or significant expressions seen in a number

of the most important barns are also discussed. It will be readily understood that the surviving New World Dutch barns of Bergen County, although relatively few in number, still demonstrate a surprisingly wide array of construction features. A few traits that are almost exclusive to Bergen County and culturally similar adjacent Rockland County, New York, are also discussed. Estimates of ages of construction of certain barns are offered.

## **Seventeenth and Eighteenth Century Barns in Bergen County**

New World Dutch barns were constructed in Bergen County as early as the 1640s. The original



Frontispiece. Rebuilt three-aisle barn at the Hopper Goetschuis Farm Museum in Upper Saddle River, New Jersey was relocated about one mile away in its Anglicized form. The barn was rebuilt at the museum site in 1990 and only the H-frames, purlin plates and braces and south end wall wagon doors are original. H-frame posts have raising holes, a rare trait in Bergen County barns.

(continued on page 2)

contract survives for construction of the Winckelman nine-bay house-barn that was erected in what is now Bogota, southeast of Hackensack, on the east side of the Hackensack River.<sup>2</sup> The timbers for this structure were cut and assembled on the present-day island of Manhattan, then shipped across the Hudson River and re-erected in the newly formed colony of Achter Col. This structure was short-lived, having been destroyed by Native Americans during a

raid.

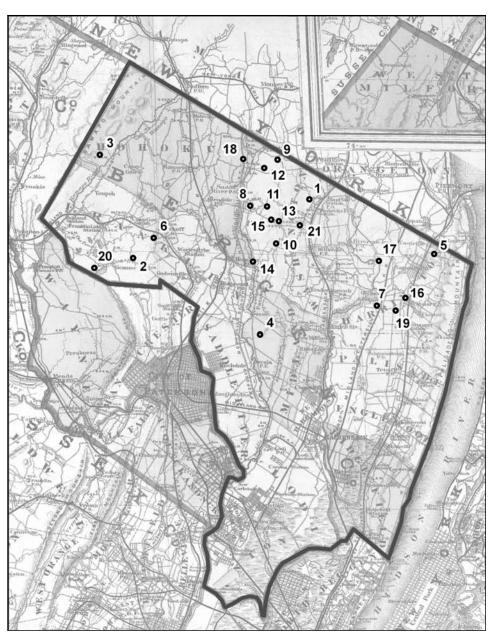
It can only be imagined that other house-barns or *loshoes* [the Dutch term for this type of structure] were built in the county. How closely the design of the Winkelman barn came to that of house-barns in other Dutch-settled areas is unknown. It is likely that other barn types common to the Netherlands were also constructed in the region in the 17th century.

As a result of the imperfectly preserved documentary record, building precedents established in the 120-year gap between the construction of the Winckelman barn and the Wortendyck barn in c.1760 are virtually unknown. Fragmentary evidence from the intervening years may eventually help to fill these gaps in our knowledge. For example, one of the recycled timbers in the Terhune barn has been dendrodated to 1730.<sup>3</sup>

#### Regionalisms in Bergen County Barns

In the second edition of the New World Dutch Barn a definition of "regionalisms" was offered.<sup>4</sup> The word as it applies to the design of Dutch barns denotes characteristics seen to varying degrees, and extending across defined geographic areas. Regionalisms may be explained in part by the per-

ceived local needs of area farmers and/or their builders. When a farmer wanted a certain feature, configuration or set of dimensions incorporated into the design of his barn that had not previously been used in the area, that trait (if perceived to be successful) might be introduced into the design of subsequently-built neighboring barns at the request of an owner or the suggestion of the builder. Depending on circumstances, the characteristic could have found its way into the structure and fabric of a number of other area barns.



Map 1. Locations of the barns discussed in parts 1 and 2 of this article indicated on the *Topographical Map of Bergen and Passaic Counties, New Jersey* (1872). 1. Wortendyke barn, Park Ridge; 2. DeGray barn, Franklin Lakes; 3. Bartholf barn, Mahwah; 4. Zabriskie barn, Paramus; 5. Haring barn, Rockleigh; 6. Yeoman-Abma barn, Wyckoff; 7. Durie-Belcher barn, Haworth; 8. Bishop barn, Saddle River; 9. Unnamed barn, Montvale; 10. Demarest barn, Hillsdale; 11. Chestnut Ridge Road Barn, Saddle River; 12. Tice barn, Upper Saddle River; 13. Duffy barn, Woodcliff Lake; 14. Terhune barn, Ho-Ho-Kus; 15. Van Buskirk barn, Saddle River; 16. Auryanson barn, Closter; 17. Weiss barn, Harrington Park; 18. Hopper barn (remnant), Upper Saddle River; 19. Demaree barn (remnant), Demarest; 20. Ackerman barn (recycled), Franklin Lakes; 21. Duffy barn (remnant), Woodcliff Lake. Map by Eric Temple Braymer.

Many factors play a role in the categorizing of characteristics and appearance of buildings. The availability of materials is an important example. Probably in the great majority of cases trees that supplied timbers for New World Dutch barns built prior to about 1800 were from either virgin or second-growth forests. In the case of second-growth timbers, examples of both purlin plates and wall plates having been assembled from two components scarfed together are known; available trees may not have been of sufficient length to supply full barn length timbers.<sup>5</sup> This characteristic is observed in almost all counties where Dutch barns occur.

However, this "spliced plate" feature is not found in Bergen County. Since all but three documented Bergen County barns were constructed with three bays, they did not require long timbers, and no barn in the county has thus far been seen that has spliced plates. The Wortendyke barn is the longest of this group, and is only 37 feet long. No plate splicing is evident in that barn; apparently sufficient singlelength timbers were easily procured c.1760 when it was erected.

It also appears that neither of the two extant fourbay barns in the county has spliced plates. No barn in Bergen or Rockland County has any spliced timbers (except possibly the rafters in the Post-Sterbenz barn) and this characteristic may almost be regarded as a regionalism. It is, however, impossible to determine at this time if the availability of materials effected the decision to construct smaller barns, or if a predilection for constructing smaller barns in the region facilitated the avoidance of spliced joints.

No Dutch barns of more than four bays in length are known to have been constructed in the state of New Jersey. Several additional four-bay barns occur in central New Jersey counties-namely Somerset, Hunterdon and especially Monmouth counties. Only one two-bay barn has ever been identified.<sup>6</sup> This is not to say, of course, that no five or six-bay barns were ever constructed in New Jersey. It is important to remember that thousands of Dutch barns have disappeared from the state in the last 100 or more years.

In contrast, a few dozen five-bay barns, several sixbay barns, and six two-bay barns are known in New York State. Possibly the smaller size of New Jersey farms when compared with contemporary farms in New York State is responsible for this size differential. In addition, it is probably the case that Bergen County farms were smaller in size in general than those in the central part of New Jersey. The average size of a Bergen County barn is certainly smaller than those

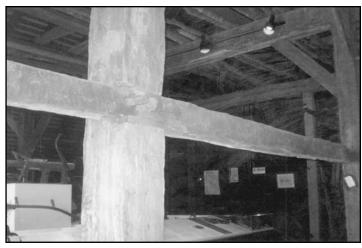


Photo 1. Interior of the c.1760 (dendrodated) Wortendyke three-aisle barn has longitudinal struts lapped onto widely slotted H-frame posts. These lapped struts are often seen in Bergen County and Rockland County barns and are considered a regionalism.

barns in the centrally located counties. Their relatively short roof peaks, short side walls, narrow naves and short verdiepingen, contribute to the rather diminutive appearance of Bergen County barns.

#### **Relative Isolation of Bergen County and Adjacent Rockland County**

An overview of New World Dutch settlement areas in both New York and New Jersey reveals that Bergen County and adjacent Rockland County, in New York, are relatively isolated from other Dutch-settled areas in the two states.<sup>7</sup> This fundamental geographic dissociation appears to be responsible for certain features that appear in Bergen County barns, distinguishing them from other areas where Dutch barns occur. Of almost all Dutch-settled areas—except perhaps Ulster County—Bergen and Rockland Counties appear to hold prominence in this regard. A few of these traits will be examined here, but an exhaustive study is beyond the scope of this article (Map 1).

The heavily-settled Dutch areas of Bergen and Somerset Counties were separated by nearly 25 miles of thinly-developed areas during the colonial era. There is a similar distance between the northern end of Rockland County and Ulster County. These separations contributed to regional isolation to some extent. Farmers and their builders inter-mingled with each other far more than with people from outlying areas, and they consequently felt outside influences to Meeting places such as taverns, a lesser extent. churches, mills or even each other's barns or houses must have contributed greatly in the dissemination of ideas and problem solving as applies to agricultural practices and concepts and construction practices.

(continued on page 4)

#### **Disposition of Head Height Struts**

One interesting regionalism that is often seen in both Bergen and Rockland County barns are wide slots in H-frame posts, created to receive beams frequently referred to as "longitudinal head height struts." The struts (Fitchen's term) were lap-jointed over these slots (Photo 1). The slots were normally four to six inches wide and 2 to  $2^{1/2}$  inches deep. They appear  $3^{1/2}$  to  $5^{1/2}$  feet or so above the threshing floor on the cow side of the barn. In barns that have lower side aisles these numbers can be somewhat misleading; in those instances the floor for the animals was at a lower elevation, with attendant lower placed slots for the struts. On the horse side slots generally appear eight to twelve inches higher than on the cow side in the same barn.

These slots are quite often oriented in the same direction. That is, on one range of H-frame posts slots faced one of the side or eave walls, while on the other range of posts the slots face the same side wall. One would presume that the timber framers would have positioned the slots in both post ranges in opposite directions; they would then face the adjacent side walls. The appearance of slots in H-frame posts, however, is not consistent in all Bergen County barns. Some barns have slots in all posts in one range while others have no slots at all of the type described. Barns in other counties almost never have these strut attachment slots. When these do occur in other areas, they

Photo 2. Interior of the Wortendyke barn, a good example of three traits that are often found in Bergen County barns. These traits include short *verdiepinghen*, purlin braces connected to H-frame posts two feet below the anchorbeams, and low side walls.

are typically joined to H-frame posts via regular mortise and tenon joinery.

How was it that in certain barns slots face the same side wall of the barn? Only speculation can be provided here. One always has to consider ease of execution as a primary motivator, together with prevailing agricultural customs. There may have been some advantage relative to the stabling of the farm animals themselves. Ultimately the reason for the orientation of these struts may remain unknown.

## Low Side Walls, Short *Verdiepingen*, and Low Placement of Purlin Braces

A constellation of traits appearing together only in a certain geographic area may rightfully be considered a regionalism. As almost ubiquitous features, the barns of Bergen and Rockland Counties have low side walls, short *verdiepingen*, and low placements of purlin braces on their H-frame posts. The combination of these three traits is rarely seen anywhere else in the New World Dutch cultural area (Photo 2). Isolated barns in other areas have these traits but these are rarely encountered. Notable exceptions are the pre-Revolutionary War-era barns of Ulster County, which consistently have this trio of characteristics. Only in Bergen and Rockland County do these traits appear consistently during the period 1760-1840.

The earliest positively dated barn in Bergen County is the dendrodated 1760 Wortendyke barn. It has a 22 inch *verdiepingh*, six foot high side walls and purlin braces that attach about two feet below the soffits of the anchorbeams. As a group these are genuinely ex-

ceptional numbers. It is due to the fact that these barns have such short *verdiepingen* and attendant low side walls that only lower side aisle ties ("struts" in Fitchen) were used. Importantly, no barn is known to have upper ties, so often seen in upstate New York barns and many central New Jersey barns.

One of the most recently built three-aisle structures in Bergen County is the c.1820 DeGray barn. It has a 55 inch verdiepingh, 10½ foot side walls, and purlin braces that attach just three inches above the anchorbeams. Bergen and Rockland Counties have the distinction of consistently having the smallest dimensions for



Photo 3. Interior of the Wortendyke barn. This barn has extremely short verdiepingh of only 22 inch length, which apparently precluded inclusion of raising holes.

these three traits, among all known examples. In the sixty year period between 1760 and 1820, the heights of side walls and *verdiepingen* of Bergen County barns both increased, but they never attained the dimensions typically used in other areas. Barns constructed in Bergen County in the early 19th century retained features that are commonly seen in barns constructed during the pre-Revolutionary War period in other regions.

It may be that several of the three-aisle barns built in Kings and Queens Counties in New York, seen in old photographs, may closely approximate the proportions and dimensions of the classic barns of Bergen County. Builders in both areas may well have had similar influences on their building traditions.

#### Raising Holes – Almost Absent in Bergen **County Barns**

Raising holes are rarely encountered in Bergen County barns. Their absence is not unique to that county, but almost all other Dutch-settled counties in New York and New Jersey retain a substantial percentage of barns with this feature.9 Only four barns in Bergen County have raising holes in the posts of their H-frames. It appears that none of the five three-aisle barns in the county have raising holes. Although the four-bay Paramus Golf Course barn could not be closely examined, the short verdiepingh of that barn would seem to indicate their absence there as well. Their infrequent use in the county may be considered a regionalism.

When raising holes occur in Dutch barns, they typically penetrate the full widths of all the H-frame posts. No Dutch barn in Bergen County possesses this feature in all its H-frame posts. The Bergen barn that comes closest to this condition is the three-bay DurieBelcher Anglicized Dutch barn in Haworth. This barn was relocated about 100 feet away from its original location about four years ago. One Hframe post had to be replaced. The seven remaining original posts have single raising holes that penetrate only about half the width of the posts; the holes are visible only on the lateral faces (on the eave wall side) of the timbers.

Why do Bergen County barns typically lack raising holes? The ostensible reason appears to be the short verdiepingen in all the barns (Photo 3). Barns with such short post extensions above the anchorbeams could have theoretically used anchorbeamto-post unions as a place where ropes could be attached for the raising of the bents. Use of such unions would have eliminated the chore of boring raising holes and thus save time in execution. This of course is speculation, and other scenarios explaining the manner in which H-frames were raised from horizontal resting positions to final vertical positions in Bergen County barns could be proposed.

#### Features Unusual and Otherwise in Certain **Bergen County Barns**

Despite having a number of similar characteristics, certain Bergen County barns have unusual traits. The following review of barns begins with the most unusual barn in the county—the Blauvelt barn in Harrington Park—perhaps the most unusual barn anywhere in the New World Dutch cultural region. Because they are so rare all five three-aisle barns are included here. Some information is borrowed from the two tables in the first article and is included here to lend a more complete picture of the barns in their overall context.

#### **Blauvelt Barn – of Unique Dekbalk** Construction

The Blauvelt barn in Harington Park, whose remnants (lying on the ground) were examined by the author in April 1993, was the focus of an article that appeared in the Spring 2004 Issue of the Newsletter. 10 The bent frame of this barn had a previously-unrecorded dekbalk type construction. This bent typology is common in barns constructed in the Dutch province of Friesland, but had never been seen anywhere in the northeastern American Dutch settlement area. Dekbalk construction is typified by the mortising of the underside of cross tie of a bent to receive the top tenons of that bent's posts. The tie extends beyond the posts by a few inches to a few feet in Netherlands

examples.<sup>11</sup> The bents thus had no *verdiepingh*, or extension above the top of the tie. Examples exist in the Netherlands where *verdiepingh* are seen at one end of a bent while *dekbalk* construction was used at the other end of the same bent.

In the Blauvelt barn the tie overshot the end posts by about three inches. The two remaining tie beams (dekbalken) of the barn had a fairly substantial size; each was about 15 inches in height by almost 13 inches wide. The bents had braces with half-dovetailed lapped tenons which established lay-out faces with the ties and the posts. A photo by Claire Tholl indicates that the Blauvelt barn likely had at least four dekbalken. Longitudinal timbers rested on the tops of both ends of each dekbalk which may have functioned as purlin plates.

It can not be said with certainty what the nature of the side aisles were. Since there were tie extensions beyond the lateral faces of the posts, side aisles of some description must have existed as the extensions were in generally good shape. That is, the ends of the ties had not deteriorated due to direct exposure to the weather on what would have been the exterior of the barn, so they must have been protected by interior spaces.

Apparently at a later date posts were placed on top of the two purlin plates—probably in an effort to raise the roof—and the roof ridge was turned ninety degrees as part of Anglicizing the barn. Other barns or

Photo 4. The 18th-century Zabriskie three-aisle barn in Paramus, New Jersey has low side walls and a relatively high peak, creating outstanding proportions. Note side wall at left with stone construction.

houses with *dekbalk* construction could have existed elsewhere in Bergen County and other Dutch-settled areas. Since no other examples are currently known it is difficult to determine the date of construction for the Blauvelt barn. It may have been contemporary with the stone house on the property, constructed c.1800.

#### **Wortendyke Barn – Early Vintage and Superb Proportions**

The three-aisle Wortendyke barn in Park Ridge on Pascack Road is outstanding in several respects.<sup>12</sup> It stands about 130 feet from an associated stone house, located across the street. This barn was first visited by the author in the summer of 1975 and a date of 1805 was seen, affixed to the front gable wall on non-original siding. The actual date of construction, c.1760, has been determined by dendrochronology. 13 At least eleven timbers were felled in 1759. Previously, this author had supplied a date of "1790 or possibly before" for this barn. Normally the Wortendyke barn would have been assigned an erection date likely before the Revolutionary War, due to its outstanding proportions. The reasoning for the later date estimation was the lack of dovetailed tenoned H-frame or purlin braces and absence of evidence of a major-minor rafter system, which two other area barns of presumed early date had.

As previously mentioned, the Wortendyke barn has both the shortest *verdiepingh* and the lowest side walls of any known three-aisle Dutch barn. The H-frame post extensions are quite short even among the

barns of Bergen County. It is probable that most mid-18th-century barns, at least in the lower half of the Hudson River Valley and many areas of New Jersey and Long Island, had similar proportions to those of the Wortendyke barn. Only a few extant barns vie for the rarity of the Wortendyke's proportions today. A five-bay barn in Ulster County off Route 209 in the Kerhonkson area has a quite similar exterior appearance and was likely built in the same era as the Wortendyke barn. Another barn of four-bay construction in Monmouth County has similar proportions.

The wood species of choice for the major timbers in this barn was tulip wood. Short wall posts, braces and the remaining original rafters are of red oak. It is possible that the roof was originally thatched. The north end wall anchorbeam was recently replaced.

Most other area barns were constructed of oak, and chestnut and tulip poplar were used in a few barns. Superb dressed surfaces appear on the anchorbeams and particularly the Hframe posts in the Wortendyke A nearby barn (now gone) that was located on another Wortendyke homestead is sometimes confused with the Wortendyke museum barn.

Before the mid-1970s renovation of the barn undertaken by the county government, the side aisles were a number of

inches lower than the middle aisle. The work done at that time unfortunately disrupted the integrity of the floor levels and so this feature cannot be seen by the visitor today.

#### Terhune Barn - Cantilevered End Wall and **Early Recycled Timbers**

The Terhune barn in Ho-Ho-Kus was one of the most fascinating barns anywhere. When first visited by the author in April 1996 only the middle aisle survived. It was obvious the barn was originally a threeaisle structure; the side aisles were likely removed in the first few decades of the 20th century. Most importantly, it was discovered that the H-frames had recycled anchorbeams, flipped over in this second installation. In their original use the anchorbeams had no scribe marks. In the new three-aisle barn that at a later date lost its side aisles, the reversed 16 to 18 inch high tulip wood anchorbeams had two-foot scribe marks applied to their faces.

The lack of scribe marks in the initial use, with the addition of scribe marks for the reuse of these elements, is rare in the Dutch barn realm. A second example was probably represented in the three-aisle Van Buskirk barn in Saddle River. This barn was originally seen by the author in 1976 or 1977. Some of the timbers from this barn were recycled in a house constructed nearby in 1978.

In its original form, the H-frame braces of the Terhune barn had lapped joints. In the later conver-



Photo 5. A detail of a side wall of the Zabriskie barn, the only known extant Dutch barn with side walls of stone construction. This native stone is often the same type seen in innumerable Dutch stone houses in Bergen County.

sion the anchorbeams were flipped and different braces were used, but the early style lapped joints were once again employed. It appears that these second-generation braces were actually recycled timbers, possibly from the original barn. One of the "new" braces was dendrodated to 1730; this may be near the construction date of the original three-aisle barn. The reuse of these materials in the present barn likely dates to the Revolutionary War era. As will be seen below, the Durie-Belcher barn also had second-generation anchorbeams re-used from an earlier barn. In its original form the Durie-Belcher barn also had anchorbeam braces with lapped joints.

As mentioned in the Spring 2004 Issue of the Newsletter, the Terhune barn in its second form had a cantilevered north end gable wall.14 It may have had a cantilever at its south end wall as well. This detail apparently went undetected until April 1996.

The relocated Ver Planck-Van Wyck barn in Dutchess County has an intact cantilever gable wall at one end. A few other existing barns and a few barns known from old photos display this feature. The orientation of the barn is about 20 degrees west of south. This was determined during a recent site visit, and represents a clarification of information presented in the first installment of this article.

One of the inner anchorbeams in the Terhune barn was 18 inches in height, making this the largest anchorbeam yet found in any Bergen or Rockland County barn. This size vies with those seen in upstate

(continued on page 8)

New York barns, where it is not unusual to see anchorbeams 16 to 20 inches in height. All things considered, the Terhune barn was a genuinely remarkable structure. It is fortunate that the barn was examined and documented a short time before most of its remaining structure was dismantled. Only the far end bent and a few H-frame posts stand at present. The barn stood about 175 feet from a historic stone house.

## Zabriskie Barn – Large Size and Unique Stone Side Walls

The rare four-bay three-aisle barn at the public golf course on Paramus Road in Paramus, north of Route 208, was first documented by the author in December 1991 (Photo 4). This is another unique Bergen County barn in that the side walls were completely of stone construction (Photo 5). No other extant New World Dutch barn can make that claim although one excellent three-aisle barn in Hunterdon County near Oldwick, possibly dating to before the Revolution, has partial end walls of stone. Few other Dutch barns had exterior masonry walls.<sup>15</sup> The golf course barn has side walls of beautiful native brownstone often seen in New World Dutch houses in the county. An uncommon feature incorporated into this barn was the placement of a door immediately adjacent to the main wagon doors. The Larger Wemp barn (Fitchen barn No. 31), apparently the Wemple barn (Fitchen barn No. 32), and the Haring barn in Rockleigh are among a few other barns that share this trait.

The Zabriskie barn has no extant associated house and is located 210 feet from the main road. It is easily the largest Dutch barn known to have been built in the county, with 531/2 foot long gable end walls and almost 50 foot long side walls. The lengths of the end walls make this one of the widest New World Dutch barns anywhere. The exterior proportions are essentially similar to those of the Wortendyke barn. The height of each side wall is a short 61/2 feet, thus rivaling the Wortendyke barn for the shortest side walls. The peak height is about 27 feet high. The main front wall faces a little west of due south. Most Dutch barns in the county face the southeast quadrant or are close to it in orientation. In a trait rarely shared by other Bergen County barns—the Wortendyke barn being an exception—the H-frame braces are joined at each of their ends by two pegs.

This barn suffered extensive fire damage several decades ago; this was mentioned by Rosalie Fellows Bailey in her *Pre-Revolutionary Dutch Houses and Families*. Most of its timbers are more or less intact.



Photo 6. Detail showing initials and date carved in stone: **ACZ 1790** on the Zabriskie barn. This date is probably not the date of construction, which is likely earlier by a decade or two or more.

The nave is 29½ feet wide; few Dutch barns anywhere surpass this width. The side aisles are each about 11 feet wide. The eight-inch extensions of the anchorbeam tenons are long for a Bergen County barn. One H-frame brace is quite large at 9 by 5 inches. The charred structural elements appear to be oak.

On a stone in the east side wall initials and a date are prominently carved: **A C Z 1790** (Photo 6). This date is between 10 and 30 years after the probable date of construction of the barn. At least three other dates, carved in stone, appear on the west side wall of the barn: 1775, 1823 and 1895. Obviously the last two are not the original construction dates of the barn. The Zabriskie barn is the only one in Bergen County with carved dates.

## Bartholf – Lord Barn – Early Type Proportions and Least Altered Three-Aisle Barn

The three-aisle Bartholf-Lord Dutch barn along Route 202 in Mahwah was first visited by the author in the summer of 1975. The three-bay Americanized (with basement) three-aisle Dutch barn in Wantage, the four-bay Westbrook barn in Sussex County and the Bartholf barn are the northernmost three-aisle barns in New Jersey. The farm here is called *Amberfields*, so named by the Lord family who bought the homestead in the early 1940s. It is said that during a trip to Europe the Lord family decided to name their homestead after the lyric "...amber fields of grain."

The barn has classic proportions and its basic timbering is intact to its original date of construction. A single bay was added at the northwest end wall. It appears that there was originally only one wagon entry in the barn – that at the southeast end wall, facing the

associated stone house which stands about 135 feet from the barn. The original three-bay section is likely the least-changed three-aisle barn in the county.

The barn was partially documented by the author in August 1986 and more thoroughly in November 1991. This small barn measures only 36 feet at each of its end walls, and just 30 feet along the sides. The side walls are a fairly short nine feet high, and the roof peak height is only about 221/2 feet. The added far end bay is 12'-3'' in width. The nave is a narrow  $16^{1/2}$ feet wide and each side aisle is a little less than 10 feet wide. Inner anchorbeams are only about 11 inches in height and their tenons extend only  $1^{1/2}$  to  $2^{1/2}$  inches.

Two-foot scribe marks appear at each end of the first inner anchorbeam and likely also the second inner anchorbeam, which was not examined. Scribed half-circles intersect the vertical marks. The original far end bent anchorbeam has these scribe marks with scribed half circles measuring about four inch in diameter intersecting them. The verdiepingh length is 49 inches, rather long for a Bergen County barn.

The wood species of all four anchorbeams is oak and likely the balance of the barn's timbers are of the

same material. The ten original rafter pairs are hewn (as are those in the added bay) and are deeply notched to engage the purlin plates. A few of the purlin braces may be riven. Slots for head height struts are present on at least three of the northeast range of H-frame posts, but are not present on the southwest range.

When the author first visited this barn hundreds of openings between the wooden roof shakes were noticed. Dr. Lord, the owner, related that when it rained the shakes absorbed the rain water and the openings basically disappeared. Not a drop reached the floor of the barn. The barn was likely built about 1800 (this is a correction to the date presented in the first part of this article) or perhaps just a bit later.

#### John Haring Barn – Rare Raised Roof

The John Haring homestead on Piermont Road in Rockleigh includes a three-aisle barn, with a raised roof (Photo 7). The farm, which has new owners, has an excellent house with at least three historic sections including a stone portion dating to the first decade of the 19th century, featuring sweeping spring eaves. The barn stands about 110 feet from the house and

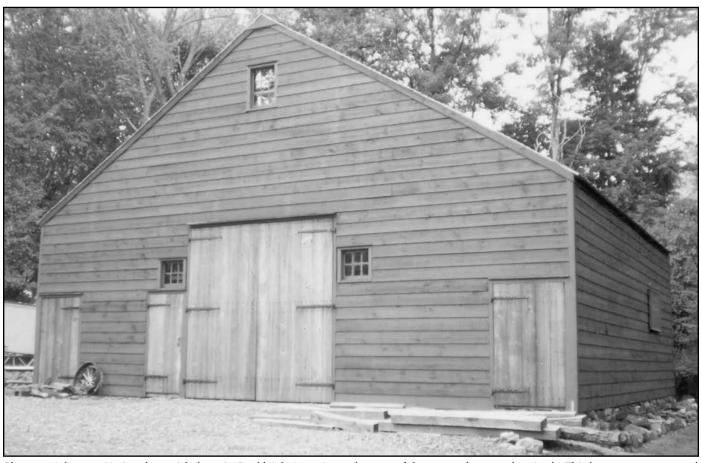


Photo 7. Johannes Haring three-aisle barn in Rockleigh, New Jersey has a roof that was subsequently raised. This barn was constructed about 1800. (continued on page 10)

only 35 feet from the main road, and is the only threeaisle barn in either Bergen or Rockland Counties that had its original roof removed and then raised, using new timbers, in the 20th century. The appearance of this barn before the raising of the roof is recorded in a c.1920 photo, seen at a recent visit to the homestead. The barn is only a few feet larger than the Bartholf barn, measuring about 40 feet at each end wall and 36 feet at each side wall. The side walls are presently about 12½ feet high but were extended about three to four feet by the early-20th century alterations.

The author first visited the barn in 1986, and documented it in October 1991. The front wall faces a little east of due south. The rafters are milled, and thus were apparently replaced during the roof conversion. The *verdiepingh* is 41 inches long—in the middle of the range of those documented—and there are no raising holes. The purlin braces attach 14 inches below the soffits of the anchorbeams. On the first inner anchorbeam, slightly to the left of its mid-point, are the carved initials **I H**, probably those of John Haring. This is the only known anchorbeam in a Bergen County barn that has any carving. The tenons of the anchorbeams extend about 7 to 8 inches and are square in profile, standard in the barns of the county.

One inner anchorbeam in the Haring barn is 14 inches in height; it is one of the largest in the county. Two-foot scribe marks are evident as are associated half circles which appear toward the mid-point of the beam, as is the norm. H-frame members are probably oak but the anchorbeams could be chestnut or some other hardwood. The floor of the wagon aisle has recently been replaced. Claire Tholl photographed the barn in the 1950s. The Haring barn is likely circa 1810 or perhaps somewhat earlier.

## DeGray Barn – Common Features but Still Extant

The DeGray barn in Franklin Lakes off Ewing Avenue, the fifth surviving three-aisle barn in Bergen County in this survey, was first visited in the summer of 1990. The barn stands about 130 feet from an associated stone house. The front wall faces almost exactly due east, a unique orientation for a Bergen County barn. This small barn measures 38½ feet at each end wall and just 32 feet along each side wall. The side wall height is 10½ feet and the roof peak is about 24 feet. The nave, at only 18 feet in width, is the third most narrow in the county.

The inner anchorbeams of the DeGray barn are about one foot in height, and their tenons are nearly flush with the lateral faces of the H-frame posts. At 55 inches, the barn has the longest *verdiepingh* among extant Bergen County barns. There are no

raising holes. Purlin braces attach to H-frame posts three inches above the tops of the anchorbeams. The original threshing floor has been replaced by a concrete slab. The barn likely dates to about 1820.

#### Demarest Barn – Americanized Dutch Barn

The Demarest Americanized Dutch barn in Hillsdale came about when a three-aisle barn was moved and then placed atop a newly constructed basement (Photo 8). 16 This conversion likely occurred within 30 years after the end of the Civil War. Family tradition says that the barn timbers came



Photo 8. The George Demarest Americanized Dutch barn in Hillsdale, New Jersey is the only Dutch barn in Bergen County that includes a basement. The original three-aisle barn was likely erected before 1800. The inclusion of both the side wall wagon entry and the basement may have taken place at the same time.

from Vermont before 1900, which is of course extremely unlikely.

The farm economy that dictated the changes to the barn was far removed from that of the late 18th and early 19th centuries, when the original three-aisle barn was erected. This is the only extant barn in the county where a Dutch barn was Americanized by the addition of a basement. The basement is several feet shorter than the length of the barn, only extending about 241/2 feet of the depth of the barn, which measures approximately 28 feet. The basement ceiling joists are hewn. The barn is located about 110 feet from a stone and frame house.

In altering the barn four new H-frame posts were used; the end bent anchorbeams are not original. Interestingly, in the original version of the barn purlin braces were attached below the anchorbeams, and in its converted form the braces were positioned seven inches above the tops of the anchorbeams. This specific transformation is extremely rare among Dutch barn conversions.

The width of the nave is only 16 feet, which is about six inches narrower than the Bartholf barn, giving the Demarest barn the narrowest nave in any Bergen County barn. The barn also has the smallest anchorbeams in the county, measuring only 91/2 by 71/2 inches. The barn has early features that include two-foot scribe marks and diminished haunched shoulders at its anchorbeam-to-H-frame post unions. The original three-aisle barn may well have been built before 1800.

#### Yeoman-Abma Anglicized-Dutch Barn – with Half Dove-tailed Tenons

The converted Yeoman-Abma barn at the end of Lawlins Road in Wyckoff is one of the more interesting Anglicized-Dutch barns in the county. The barn stands close to 90 feet from a bent-framed house. The homestead, which still functions as a working farm, has been in the Abma family since about 1930. Before that time it was in the Yeoman family going back to at least 1830. The original barn had four-bays and its likely date of construction was around the year 1800. The rationale for this date is found in the Hframe braces, which are joined via lapped open-faced half dove-tailed tenons. This is the only barn in the county of any form with bent braces of this type. Only the Blauvelt barn in New City, Rockland County has these tenon forms and there they are only seen in the purlin braces. The bent braces in the New City barn have regular joinery; there are no lapped end joints or tenons.

A rare feature of the Yeoman-Abma barn is the lapped tenons, which span the full widths of both the anchorbeams and the posts to which the braces join. Another rare construction detail is that no pegs were used to join the anchorbeams to the posts. This pegless design has been seen in only two other Dutch barns: one in Dutchess County and the other at the Polhemus homestead in Somerset County, now razed.

Lapped half-dovetailed, tenoned braces were utilized in both the Yeoman-Abma barn and in pre-Revolutionary War era barns in Ulster County.<sup>17</sup> The short verdiepingh of just 26 inches, the rather low position of the purlin braces, and the long 13 inch tenon extensions of the anchorbeams suggest a pre-1800 construction date. The presence of later-type squareshouldered joints at the anchorbeam-to-post joints, and the fact that both the H-frame braces and purlin are milled, indicates a construction date for the Yeoman-Abma barn of a number of years after the end of the Revolutionary War.

Another trait of the Yeoman-Abma barn is unique in the county. Five-inch wide angled notches in the purlin plates are spaced about seven feet apart, ostensibly for the placement of rafters of considerably larger size than those commonly used. This suggests that the roof structure may have been of the major-minor rafter system type, such as those seen in early Ulster County The Anglicized-Dutch New City barn in Rockland County, dendrodated to before 1800, also possesses these angled notches in their purlin plates. The various traits of the Yeoman-Abma barn present conflicting indications of its age. It would appear on balance that it is likely it dates to about 1800.

Craftsmanship in the Yeoman-Abma barn is not of the quality seen in the finely-built early Ulster County barns or in the Wortendyck barn. There is a certain primitiveness of expression in the joinery. The conversion of the original three-aisle barn to a barn form including a second floor side wall wagon entrance likely took place after the Civil War. The "new" rafters and many minor timbers in the "new" side walls such as studs and braces are milled, suggesting a last quarter of the 19th century conversion date.

#### **Durie-Belcher Anglicized Dutch Barn –** with Early Recycled Anchorbeams

The Durie-Belcher barn on Schraalenburgh Road in Haworth was first visited by the author in September 1991, and has been disassembled and re-erected nearby within the last few years (Photo 9). The barn

(continued on page 12)

resembles the Terhune barn in one important aspect: three of the four anchorbeams have early-type open-faced mortises for lapped half-dovetailed braces. They are located about a foot inside the H-frame posts and they were recycled into newly constructed H-frames. It appears that three of the anchorbeams are of tulipwood and one is of another, unidentified, species. All were joined to oak posts and braces to form a series of H-frames in a newly-constructed three-aisle barn built about 1810 or so. In its original configuration the barn was likely erected before the Revolution. In its recycled state the anchorbeams had two-foot scribe marks but had the later-type square-shouldered juncture with the bent posts.

Several decades after the first barn conversion – from early three-aisle barn to later three-aisle barn – the barn underwent a second conversion, this time to an Anglicized Dutch form. The twice-converted structure of the Durie-Belcher barn makes it unique among those in Bergen and Rockland Counties. One hundred years may have passed between the first construction of this barn and its second conversion.

The reader will recall that seven of the H-frame posts in this barn have raising holes, which is extremely unusual in either a Bergen or Rockland County barn. This may be due to the fact that the *verdiepingh* seen in the Durie-Belcher barn, when compared to most Bergen County barns, is a relatively long 42 inches. One H-frame post is of new construction. Before its recent move, the barn was sited a quite distant 217 feet from a stone and frame house that has distinctive flared eaves.



Photo 9. The Durie-Belcher Anglicized three-bay Dutch barn in Haworth, New Jersey was recently moved about one hundred feet from its original location and converted into a residence. The original three-aisle barn was likely constructed before the Revolution. Later it took a second three-aisle form and still later a barn with a side wall wagon entry. Thus to date it has had four barn lives.

It is interesting to speculate as to why certain families that had three-aisle Dutch barns maintained their barns in that form, while three-aisle barns at other sites were transformed into Anglicized Dutch barns. This phenomenon may be related to a particular farmer's age and health, economic status, or to the passing of the farm from one owner to another in the 1830-1880 period, when most of these conversions occurred. A young farmer with great industry and need to expand an established farm may have enlarged his barn by roof re-orientation while his neighbor was content with the status quo. Clearly a number of potential factors could have influenced an owner to either maintain or convert their barns. Barn conversions were common in almost all areas of New Jersey, in New York outside of Rockland County it is rare. An interesting and valuable study would involve a property title search to see if transfer of ownership correlates to a major barn alteration.

## Auryanson One-Aisle Barn – Unique in County

The Auryanson barn in Closter is unique in that it is the only one-aisle Dutch barn known in the entire county. Only a single example of a one-aisle barn is located in adjacent Rockland County, at the Kellogg homestead near Palisades.

The Auryanson barn was moved a number of feet from what was probably its original site at an unknown date, and is associated with an early 19th-century gambrel-roofed stone house. It has three bays and is unusual in that the middle two bents have both upper braces, which are rare, and lower braces. The H-frame braces are milled, a feature which is also

rarely encountered in Bergen County. Most Dutch barns, even those constructed after 1820, have hewn H-frame braces. Another feature of the Auryanson barn is the presence of two-foot scribe marks. These features combine to suggest a likely construction date in the 1815-1825 era.

#### **Duffy Two-Aisle Barn Remnant**

At the Duffy homestead in Woodcliff Lake a unique and diminutive three-aisle two-bay barn (in its original form) was preserved until recently. It was intact except for one of it side aisles, which had been eliminated a number of decades ago (Photo 10). This barn was removed about 1997 or so and is believed to have been reconstructed in Texas. The center aisle was only 16 feet wide; the one remaining side aisle was 6 feet wide and its side walls were each just 17 feet long. The height of the top of the anchorbeam to the floor

was only seven feet. This last dimension is short—in most Dutch barns this dimension measures 12 feet plus or minus a few inches—although several Bergen barns feature a shorter height of about 11 feet.

The clearance below the anchor-beams in the Duffy barn was not high enough for a normal-sized hay wagon to enter at the gable wall. The anchorbeams had two-foot scribe marks and the barn likely dated to 1810-1820. The precise function of this structure is unknown but it may have supplemented a larger barn on the property. The farm was also the site of a c.1840 or possibly later three-bay Dutch-Anglo barn, now gone, that stood about 220 feet from the main house. One remarkable feature seen in the c. 1840 barn was the original condition of its wagon floor; the floor planks in two sections ran not side to side (H-frame post to H-frame post) but from wagon door to opposite wagon door. This condition is presently seen in the Haring barn, but is not original to it.

#### **Summary and Conclusions**

New World Dutch barn-building traditions were established in Bergen County at least as early as 1642, when the Winckelman barn was constructed. Other similar barns must have been erected in the county during the remaining decades of the 17th century, yet there is almost nothing remaining from the 120-year time span which followed its construction.

Nonetheless, the precedents that this and other now-unknown barns established gave rise to dimensions and proportions seen in Bergen County barns built in the later part of the 18th century and to some extent into the following century. Extant barns from the post-1760 period, such as the Wortendyke barn, provide some documentation of the general appearance of Dutch type barns in Bergen County in that era. For the period 1760 to about 1840, only a general sense of the county's building traditions is presently understood.

If the perhaps 100 or so barns remaining in the county 1900 had been thoroughly documented, a considerably better understanding of their evolution could have been obtained. The loss of pre-1800 county barns has resulted in an incalculable loss of information, and can only be supplemented at this time with data collected from surviving photographs and documentary sources. Such artifacts do occasionally surface, an example being photographs of the seemingly early-18th-century barn (with an end wall cantilever) at the Dey mansion in Lower Preakness in Passaic County.<sup>18</sup> The remarkable proportions of the Dey barn put even those of the superb Wortendyke barn almost to shame.

Bergen County Dutch barns followed certain parameters, that is, specific dimensions and expressions that were likely established early in the 18th century or even before. Some caution is advisable, however, in being too strict with interpretations of earlier traditions, such as the often-seen narrow-width naves in several county barns. Recall that the three earliest documented barns-the Wortendyke, Zabriskie and Terhune barns—all had wide naves.

> As a group, the remaining barns in Bergen County have the shortest verdiepingen anywhere in any of Dutch settled areas in either New York or New Jersey. It is possible that an environmental factor such as a shortage of long timbers could have influenced the diminutive dimensions seen in post-1800 Bergen County barns. Most areas of both states had a general shortage of long timbers after the close of the 18th century and perhaps even before. However, the principal cause of the restricted dimensions of Bergen County barns may ultimately be a reflection of the general low fertility of the soil; nearby Rockland County is socalled for good reason. A complex of factors including environmental

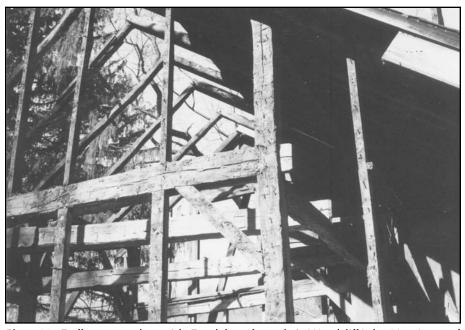


Photo 10. Duffy remnant three-aisle Dutch barn formerly in Woodcliff Lake, New Jersey of scribe rule era, or pre-1815 vintage. A number of decades ago one side aisle was removed. The barn originally had only two bays.

(continued on page 14)

and socioeconomic considerations determined appearances at both a macro and a micro level.

All of these factors were expressed in construction details that were refined and repeated to such an extent that they took on regional qualities, becoming deeply entrenched in both builders' lexicons and farming traditions. This however probably accounts for only a small degree of the reasoning behind the regionally unique appearance of Bergen County barns.

The recycling of timbers from earlier barns into later-constructed barns is a substantial part of the story of barn building traditions in Bergen County. Apparently this phenomenon occurred rather early, witnessed for example by the re-use of early anchorbeams in the circa 1780 Terhune barn. This recycling of early anchorbeams into later barns must have occurred in a significant number of other barns now lost. Either the proportions of the earlier barns proved inadequate to later agricultural needs or the barns required extensive repairs, causing them to be rebuilt. It was not the wont of early farmers and builders to throw away good useful timbers.

Construction expressions that were suitable for one farmer were likely useful for other farmers not far removed in time or place. Regionalisms developed and were successful inasmuch as they addressed local needs. In the day when these barns were constructed, the principal concern was utility; in our day we venerate these barns. They are two different orientations—one of long ago that lived by a certain agrarian consciousness and the other that serves to preserve that consciousness. Both are part of a long continuum. Bergen County is just one example among many wherein regional building traditions were followed for a number of decades. Although the remaining barns in the county preserve just a tiny percentage of what were once widespread customs, they tell a story of the common aspirations, decisions, struggles and triumphs of those people who labored to produce what was needed for their daily lives.

- 1 See the Spring 2007 issue of the Newsletter.
- Reginald McMahon. "The Achter Col Colony on the Hackensack." New Jersey History (The New Jersey Historical Society) 84 (Winter 1971), 227.
- 3 The dendro-dating study of this building was done by Alice Gerard of Palisades, New York.
- John Fitchen and Gregory D. Huber. The New World Dutch Barn: The Evolution, Forms, and Structure of a Disappearing Icon. Second Edition. (Syracuse: Syracuse University Press, 2001).
- Gregory D. Huber. "Joinery in Dutch-American Barns," Joiners Quarterly 32 (Aug.-Oct. 1996), 19-22.
- John Fitchen and Gregory D. Huber. The New World Dutch Barn: The Evolution, Forms, and Structure of a Disappearing Icon. Second Edition. (Syracuse: Syracuse University Press, 2001).
- The greater part of New World Dutch settlement areas are covered by Rosalie Fellows Bailey in her Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern New York (New York: Dover Publications, 1968), and by Helen Wilkinson Reynolds in her Dutch Houses in the Hudson Valley before 1776 (New York: Dover Publications, 1965).
- Gregory D. Huber. "Regionalisms in Dutch Barns: A Possibility for Future Subtyping," Dutch Barn Research Journal 1 and 2 (1991 and 1992), 78-87.
- Gregory D. Huber. "Raising Holes in Barns," a five part series published in Barn Field Survey 4: 8 (August 2004), 4: 10 (October 2004), 4: 12 (December 2004), 5: 2 (February 2005) and 5: 4 (April 2005).

- 10 Gregory D. Huber. "Two New Forms of Dutch-American Barns?" Dutch Barn Preservation Society Newsletter 17: 1 (Spring 2004), 1-6, 8.
- 11 For a well-illustrated book with many drawings and photographs of numerous types of Dutch framing styles and variations in the Netherlands, see G. Berends, Historisch Houtconstructies in Nederland (Arnhem, Netherlands: Stichting Historisch Boerderij-Onderzoek, 1996).
- 12 Robert L. Cohen. "The Wortendyke Barn Museum" Dutch Barn Preservation Society Newsletter 12: 1 (Spring 1999), 4-5.
- 13 John Fitchen and Gregory D. Huber. The New World Dutch Barn: The Evolution, Forms, and Structure of a Disappearing Icon. Second Edition. (Syracuse: Syracuse University Press, 2001), xlviii.
- 14 Gregory D. Huber. "Two New Forms of Dutch-American Barns?" Dutch Barn Preservation Society Newsletter 17: 1 (Spring 2004), 1-6, 8.
- 15 Editor's note: See the 18th century advertisement for the sale of Guy Park in this issue for another example of a masonry Dutch barn. See also "Influences on New York's Early Dutch Architecture," by Shirley W. Dunn, published in the Fall 2003 issue of the DBPS Newsletter.
- 16 Gregory D. Huber. "Ninety-Degree Roof Rotations in New Jersey Dutch Barns." Material Culture 31 (Spring 1999), 1-20.
- 17 Gregory D. Huber. "Framing Techniques as Clues to Dating in Certain Pre-Revolutionary Dutch Barns: Major and Minor Rafter Systems, Lapped Dovetail Joinery, Verdiepinghs and Other Traits," in Material Culture 29 (Summer 1997), 1-41.
- 18 This photo was found by John Zerbo of Oradell, New Jersey in August 1997.

#### From the Survey

## The Guy Johnson Barn, Amsterdam, Montgomery County, New York

(NY-MG-AM-001)

Contributed by Walter Richard Wheeler

A previously-unknown barn associated with the Guy Johnson house in Amsterdam, Montgomery County, is among those new structures that have been discovered by the Survey of New World Dutch Cultural Resources (aka the Dutch Farm Survey). We know very little about this structure, except for what is included in an advertisement placed when the property was for sale in 1789 (Figure 1). It was probably constructed before the Revolution; the original house on this site was constructed c. 1763 (Photo 1). The "large Dutch barn built of stone" is no longer extant, and there are no known images of it. The house described in this advertisement still stands, and houses the Montgomery County Chamber of Commerce. was constructed c.1774 after the original house was struck by lightning and burned. There is no apparent New

World Dutch cultural influence in the design or construction of the present house, a center passage double pile stone dwelling, which underwent extensive alterations in the early part of the 19th century.

A Farm to be Sold, Cheap for Calli, NOWN by the name of GUYPARK formerly the lest of Col. Guy Johnston, confifting of 640 acres, being i mile fquare upon the Banks of the Mohawk River; alfo two fmall Islands in the River. On the premiles t ere is an excellent dwelling-house, built of stone, in the most modern stile, and capable of accommodating a genteel family, stands on the banks of the river, and commands a most delightful profpect; there is a brewhouse and malting in good repair, a large Dutch barn built of stone, with a coachhouse and pigeon-house adjoining the mansion House; there is about so acres of low land, under the highest cultivation, and nearly as much upland newly cleared and fenced; the meadow yields about too loads of hay, and may be greatly enlarged; the fituation is eligible for bufiness or tavern-keeping, being 16 miles from Schenectady, on the north fide of the river, on the road that leads to the Western country, and in the midft of very growing fettlements .--Those inclining to purchase, may be informed of particulars by applying to Meffrs. HAY STEVENson, and Co. Merchants, Queen-street, New-York, or to Mr. JAMES CALDWELL, Merchant, Albany, or the ful feriber on the premifes. PATRICK MIKELL

Figure 1. Advertisement placed in the 12 May 1789 issue of the *New-York Daily Gazette*, which mentions the barn, other outbuildings, and land uses.



New-York, May 11, 1789.

Photo 1. Guy Park, from the Historic American Buildings Survey, in 1936 (HABS NY.29-AMST.1-6).

#### From the Editor

Due to space limitations Ned Pratt's report on the first full year of the Survey of New World Dutch Cultural Resources will be published in the next issue of the Newsletter. Similarly, my attempt at disentangling the terms "Dutch-American" and "Americanized Dutch" will be published in a subsequent edition of the Newsletter. As promised, with this issue the new feature "From the Survey" begins its appearance.

DBPS member Roberta S. Jeracka has recently pdfed the full run of the *Dutch Barn Research* Miscellany. The Miscellany was a photocopied compilation of research notes and field notes, created by Vince Shaefer and others. It was issued as part of the regular membership subscription from 1988 to 1994, and is now hard to find. No more than 55 copies of some of the issues were printed. It is now available on our website for your information and enjoyment! Check it out at www.dutchbarns.org/index.htm.

Please contact me at wwheeler@hartgen.com or at PO Box 1413, Troy, New York 12181-1413, with ideas or submissions. We are always interested in articles which combine new and interesting information with long-term scholarly value.

Walter R. Wheeler

### **DUTCH BARN** PRESERVATION SOCIETY NEWSLETTER



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