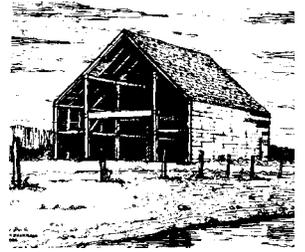


# DUTCH BARN PRESERVATION SOCIETY NEWSLETTER



SPRING 2004

VOL. 17, ISSUE 1

## TWO NEW FORMS OF DUTCH-AMERICAN BARNS?

By Gregory D. Huber

Since the publication of John Fitchen's 1968 classic and seminal work, *The New World Dutch Barn*, much has been learned of the various appearances and expressions of one of the earliest styles of American barns. Several observers, particularly Peter Sinclair of West Hurley, New York and Alex Greenwood and Eric Endersby of New Jersey, have clearly demonstrated that the complexity of this barn type in America extends far beyond what Fitchen originally portrayed in his book. The extent of his experience and awareness of the style dictated that he only delineated the principal traits and some secondary ones of what is now known as the classic or three-aisle barn. Consequently, far too many casual on-lookers of the barn in both New York and New Jersey have often believed that the three-aisle barn is the only form Dutch builders and farmers constructed in America. Six distinct forms were recognized: the long non-extant house-barn form, the three-aisle or classic form, the "Dutch-Anglo" form, the "Dutch-German" form, the one-aisle form and the derivative form<sup>(1)</sup>. Another category was discussed that included miscellaneous types that embrace several very unusual or unique expressions of the Dutch barn style. A few of these might be considered potential candidates as newly recognized forms of the Dutch-American barn. However, two very rare barns, both formerly in Bergen County, New Jersey, have been previously unrecognized as examples of potential barn forms. As will be demonstrated, one of these barns with its distinctive traits qualifies it as a new form. The other barn, while having its own peculiar constructional mode, is not entitled to the same position. A barn type must have fundamental differences from all the other barn forms to be accorded its own status as a distinct form. It should be noted that the classification system of barn forms is a refinement from what was presented in the second edition (June 2001) of the *New World Dutch Barn*.

### Original Dutch Barns and Their Attrition

A review of the different forms mentioned above indicates that Dutch-American builders had a wide lati-

tude of forms in which to choose and construct barns in America. They did this, to varying degrees, from the second quarter of the seventeenth century to the last third of the nineteenth century. Not all of the forms were constructed in equal numbers or perhaps even represented in all periods. The numbers and very probably the specific forms of barns that have remained and been examined in the last thirty years have almost certainly distorted any realistic sense of what their original numbers and forms most likely were 125 to 350 years ago. I have estimated that there were approximately 50,000 to 100,000 barns of the Dutch type that existed by the first quarter of the nineteenth century, when the great majority of Dutch building construction had run its course. At the start of the twenty-first century, approximately 700 barns of Dutch extraction have been seen and variously recorded by a number of observers. There has been a false impression of the total appearance of all the various forms of the Dutch-American barn.

### Regionalisms

As part of the full expression of the Dutch-American barn style, the idea of regionalisms plays a significant role in a broad-based understanding of the manner in which these barns were originally conceived and constructed.<sup>(2)</sup> Regionalisms may be defined as particular characteristics that are seen to varying degrees in certain barns extending over variable geographic areas. Certain traits may infrequently, rarely or never be seen in other areas. Regionalisms developed out of certain perceived and localized needs and availability of materials. Certain ideas and expressions initially spread and certain farmers and builders utilized them. However, far too many barns have vanished such that all the exact regionalisms that occurred in original settlement areas could ever be determined. Attendant to this is the loss of understanding of how certain builders and farmers anticipated and solved a multitude of the problems they faced, both in a purely structural sense and in a functional sense. Lost too is a gain of any genuine aware-

## **Dutch-American Barns** (continued from page 1)

ness of how these early folk people were specifically influenced by earlier building and farming practices in America. An incalculable amount of the efforts and the decisions they made were locked into the fabric and structure of each barn and they have simply dissolved over time. The two rare barns in the following discussion will serve as examples of certain structures that had distinctive traits and that varied considerably from what we now recognize as the norm and that was very likely more commonplace on the Dutch-American cultural landscape.

### **Two Rare Barns as Illustrations**

In the barn forms mentioned earlier, all forms, with the single possible exception of the post-1840 derivative barns along with the long extinct house-barn form, appear to be fairly well represented. In order to illustrate the unmitigated disappearance of certain Dutch-American barns, two barns, among other potential ones, provide rare opportunities to understand the poorly represented aspect of the few remaining numbers, structural types and possibly forms of the original extent of the Dutch-American barn. These barns also serve to make evident that certain builders and farmers were influenced by particular building methods that were considerably removed from many of the normal cultural expressions adopted in most barns.

### **The Blauvelt Barn: A Barn with *Dekbalk* Construction**

The first instance of a rare and unique barn, that had survived until about 1990 when it was dismantled,

stood on the Blauvelt homestead in Harrington Park, Bergen County, New Jersey.

On the exterior, the barn had the appearance of a “Dutch-Anglo” hybrid form with the standard sidewall entrances. This form was very likely not original. “Hybrid” barns (with the normal H-frame construction) are seen particularly in Bergen, Monmouth, Somerset and Hunterdon Counties, New Jersey. They also appear occasionally in a number of counties in New York. However, the original Blauvelt barn, circa 1800, was very likely in a three-aisle format.

The Blauvelt barn’s interior structure was unprecedented in the entire Dutch-American landscape. There were a series of structural units, or bents, but they were not at all in the form of the very typical H-frame or what is called *ankerbalk* construction in the Netherlands. The H-frame of course is seen in virtually every Dutch-related barn in America. The word anchorbeam, a Fitchen term, was derived from *ankerbalk*. Fitchen graphically demonstrated more than 35 years ago that what distinguishes *ankerbalk* construction so clearly is that each end of the horizontal tie or anchorbeam passes completely through the mortise of the post and very often terminate in a salient tongue or extension beyond each end post. In addition, there is an extension of each post above the tie that ends at the soffit of the purlin plate. In the first half of the seventeenth century, the Dutch in the Netherlands used the term *verdiepingh*<sup>(3)</sup> to describe this extended post condition in both houses and barns. The *verdiepingh* in American barn examples may vary anywhere from about two feet (in the Wortendyke barn in Park Ridge, Bergen County) to as much as about 18 feet (in the non-extant and unique seven bay Wagner barn in Rensselaer County). In general, the earlier the barn, the shorter the *verdiepingh*.



Fig.1 **Blauvelt Barn** – Barn with roof removed. Framing scheme of *dekbalk* construction with post of bent tenoned into horizontal tie. Bent braces with lapped half-dovetailed tenons. (Photo – Claire Tholl)

In the Blauvelt barn, main structural framing units were in the form of *dekbalk* construction. In each unit, a horizontal tie or *dekbalk*, was mortised near its ends into which were inserted the tenoned upper ends of each of the two vertical end posts of the bents. The mortises in each *dekbalk* measured 2-3/4 inches wide and 11-3/4 inches long. Each *dekbalk*, of tulipwood (*Liriodendron tulipifera*), was a few inches shy of 27 feet in length, thus the nave was over 25 feet in width, substantial by Bergen County standards. Their cross-sectional dimensions were about 12-3/4 inches thick by 15 inches high. The tie oversailed the post by a few inches and there was, of necessity, no post extension above the tie and therefore no *verdiepingh* of which to

speak. As a natural consequence of this, no raising holes were present. Two narrow pegs united the end of each tie to each post. Purlin plates were set into 9 inch wide recesses at the top surface of the *dekbalken*. The outer edges of the recesses were about 5 inches from the very end of the tie beams. End braces with lapped half dove-tailed tenons united the ties to the posts of the bents. Distinct marriage marks appeared at each tie and post juncture and at the top of the braces. Three *dekbalken* were in evidence in the Blauvelt barn. At least one *dekbalk* unit had been definitely removed many decades ago as the precise manner of the framing of the bent's braces indicates.

## Frisian Barn Prototype

The use of *dekbalk* construction is a common feature in the Frisian barn form often found in Friesland, the most northern province (except Groningen) in the Netherlands. The Frisian barn form is distinguished from several other major barn forms that appear in the Netherlands as an aisled form with a high central nave for crop storage from floor to roof peak. Cattle were kept in one side aisle with noses to the side wall and the unloading of hay wagons occurred on the other side aisle. There are a number of cases in the Netherlands where the bents of particular barns actually combined both *ankerbalk* and *dekbalk* construction<sup>(4)</sup> where one end of the bent has one configuration while the opposite end has the other arrangement.

## Reasons for Rare Construction

What was the motivation or experience of the builder or farmer to construct the Blauvelt barn in such a seemingly unusual manner? Were his local economic requirements or farm operations so unique that he required a vastly different barn than the H-frame structures that were apparently utilized by so many other Dutch-American farmers? More to the point, how common was the *dekbalk*-constructed barn in Dutch America prior to about 1825? The first question may be answered at least in part by the identification of the occupants of the Blauvelt homestead when the barn was generally constructed and when and where they originated from in Europe. The answer may point to the Friesland area of Holland. Would a Frisian immigrant farmer instruct a contractor to build his barn in such a distinctive manner so as to include *dekbalk* framing? Or would the farmer be indifferent to the construction technique and simply require the builder to erect the barn as long as certain dimensions were satisfied? The builder may have been either Frisian or somehow knew the technique intimately. The riddle will likely never be answered but it raises other more significant questions. To what extent are known all the major framing techniques that were utilized by eighteenth and early nineteenth century Dutch-American related timber

framers? It is possible that by the first third of the nineteenth century several dozen or more of these barns with *dekbalk* construction could have existed. If this were the case, this construction type would have constituted a distinct form of the Dutch-American barn. This will never be known, as the attrition rate of barns has accelerated so rapidly in the last number of decades. The number of original barns with *dekbalk* construction has been long lost.

Ultimately, it is necessarily an assumption that the original use of the Blauvelt barn paralleled the functioning of the Frisian barns in the Netherlands as described above. Nevertheless, since the structural composition of the barn was so radically at variance with all other Dutch-related barn forms constructed with H-frames, the Blauvelt barn attains prominence as a singularly important and newly recognized barn form. It is particularly unfortunate that this barn has disappeared that could have remained as a symbol of the divergent methods that were employed by early Dutch-American timber framers.

Interestingly, the associated house at the Blauvelt homestead is constructed of typical Bergen County Dutch sandstone. The house basically mimics many of the general traits seen in the more than 210 other pre-1830 stone houses found in the County. Nothing about the house and its construction suggests any particularly direct influences of any distinct regional vernacular expression known in Holland-style houses. The house is thought to date from 1805.

## The Terhune Barn – A Barn with a Cantilevered End Wall

The Terhune barn in Ho-Ho-Kus, Bergen County, New Jersey is the second structure to graphically demonstrate the limited numbers of extant Dutch-American barns. Mostly dismantled in May 1996, the barn was a four-bay structure that was originally three-aisled. However, both side aisles were removed many years ago. Unusually large for a Bergen County barn, the side wall length was a long 48 feet and the central aisle measured a wide 26-1/2 feet. Anchorbeams of tulipwood 11 inches wide by 18 inches in height were the largest known of any of the 36 barns of Dutch type ever seen in Bergen and adjacent Rockland County, New York. Their size was comparable to many of the all-pine barns in the Schoharie and Mohawk River Valleys of New York. All timbers, except anchorbeams, were made of oak (*Quercus* spp.).

The Terhune barn featured a very rare cantilevered gable end wall that assumed a triangular form above both the purlin plate level and the area of what was the center aisle or nave. The entire cantilever extended 12 inches beyond the rest of the plane of the end wall. A cantilever may have existed at the other end wall. The notched ends of a transverse timber

## **Dutch-American Barns** (continued from page 3)

that formed the base of the cantilever were lapped over the similarly notched ends of the projecting purlin plates at which points they were joined and pegged. The cantilever on the exterior face was covered with very old horizontal weatherboarding secured with cut nails. Toward the peak was an original martin hole, a very rare example found on any New Jersey Dutch barn. A very short 30-inch *verdiepingh* precluded a five-sided cantilever (see Fig.2,3,4,5) that was seen in a few of the cantilever barns that are discussed below. The primary function of these cantilevers appears to have been for crop ventilation and for some protection from the weather of the large threshing doors just below.

### **Other Features in the Terhune Cantilever Barn**

Rare lapped half-dovetail joinery appeared in the barn's massive 5 inch by 11 inch H-frame braces. The braces' lapped condition is most often reserved for bents seen in barns that have major and minor rafter systems in Ulster County, a few barns in both Bergen and Rockland Counties and very sporadically else-

where. <sup>(5)</sup> Lapped tenons appear in collar beams when they occasionally occur. This joinery method is ubiquitous in collars that are commonly seen in Dutch-American houses. Anchorbeams from an earlier barn were flipped over from their original orientation into the cantilevered structure making it one of the earliest converted barns from an original barn that has been studied. In the original barn construction there were also H-frame braces with lapped joints. In the converted-barn form the construction date may have been circa 1780 but the original barn could have been pre-1750 as one of the H-frame braces that appeared to have been recycled was dendro-dated to 1730.

### **Other Dutch-American Barns with Cantilevers**

In addition to the well-known and re-located barn at Mount Gulian in Dutchess County, New York, with its five-sided cantilever, the Ho-Ho-Kus barn was the only other extant barn with an intact cantilever. Photographic and structural evidence shows that at least five other structures were known to have cantilevers. <sup>(6)</sup> These included the VanderVeer and Van Pelt barns in Brooklyn, the Dey barn in Totowa, New



Fig. 2 Verplank – Van Wyck Barn – Exterior of end wall with five-sided cantilever. This circa 1765 three-aisle barn was relocated from its original location near Sprout Creek in the early 1970s to Mount Gulian. (Photo – Greg Huber)



Fig. 3 **Verplank – Van Wyck Barn** – Exterior close-up of upper section of end wall. View of side wall of cantilever in line with purlin plate. (Photo – Greg Huber)



Fig. 4 **Verplank – Van Wyck Barn** – Interior close-up of base of cantilever, looking up. End wall anchorbeam is seen in middle of photo. Base of cantilever is framed with timber 18 inches to left of anchorbeam that forms opening to interior of barn for possible ventilation of crops and protection of threshing doors during inclement weather. (Photo – Greg Huber)

Jersey and two barns in Mercer County, New Jersey. The Dey barn was destroyed about 1930 and had very low side walls and very wide gable end walls. One of the Mercer County barns, a circa 1780 structure, was disassembled about two years ago by the New Jersey Barn Company and will be re-erected at the same site. At some point in the first half of the nineteenth century two major alterations were done. A new roof with recycled rafters was re-oriented 90 degrees from its original position and new side wall entrances were installed. <sup>(7)</sup> The 3-bay barn maintained its original

dimensions with a 34 foot end wall (original length of side wall) and a 46-1/2 foot side wall (original gable end wall). Distinctive gunstocked end wall H-frame posts are seen, a trait that is known in about 8 to 10 other barns of Dutch-type in central New Jersey.

One particularly interesting aspect of the barns with cantilevers involves their geographic distribution. The seven barns with cantilevers are seen in five different counties. The most northern barn, in Dutchess County, is more than 100 miles from the most southern barn, in Mercer County. This is indicative of a quite extensive geographic area by the late-eighteenth century. This distribution also indicates that cantilever barns did not apparently constitute a distinct regionalism. Assuming that the ratio of cantilever barns that existed in the late 1700s was more or less the same ratio as is currently seen (seven cantilever barns to the total number of barns or about 700), there were likely a few hundred barns with cantilevers constructed by the late 1700s. From the current numbers, it is clearly seen that the attrition rate of barns with cantilevers has been profound. Unlike the barn with *dekbalk* construction, the cantilevered barn, however numerous they might have been in the eighteenth century, would not have constituted a distinct form of the Dutch-American barn. Its basic construction duplicates hundreds of other classic-form barns that have been observed in the last several decades.

### European Cantilever Barns

Certainly, there are a number of barns in the Netherlands and adjacent lowland Germany that closely duplicate the few cantilever barns seen in America <sup>(8)</sup>. One particularly intriguing example is located in the Netherlands. It is within one mile of the German border in Rekken in the northeast section of the Gelderland province. It is a multi-bay structure with *ankerbalk* construction with a very short *verdiepingh*. The barn probably dates from the second half of the eighteenth century. These European cantilever barns were quite likely the prototypes of Dutch-American examples.



Fig. 5 **Rekken Barn** – Exterior of end wall with cantilever. This second half of the eighteenth-century barn is in the Netherlands in the extreme eastern section of Gelderland province near German border. (Photo – Greg Huber)

## Conclusions

Dozens of Dutch-American barns have been saved from the bulldozer and other destructive agents that have decimated the last remaining barns in the past 50 years. Timbers from these barns have either been recycled into “parts barns” or have been converted into weekend or vacation homes often many miles from their original locations. Certainly these efforts have preserved some information of the original construction of a number of barns. But far too often the fine details of much of the original fabric of the barns have been seriously sacrificed. Quite frequently, barn contractors and renovators have simply failed to note at the time of disassembly the hundreds of pieces of information available to them about the barns’ original appearance, and thus much has been lost forever due to the lack of proper documentation.

Hundreds of other barns in the last century have simply been destroyed either by the weather or

left to decay or have been disposed of by the severely modifying forces of suburban development. Many barns were also destroyed during the Industrial Revolution in the middle third of the nineteenth century, as the classic Dutch barn form very often lost its original utility. These barns unquestionably possessed innumerable expressions of regionalisms and other special traits that could have provided greater levels of comprehension of how builders and farmers in their economic and agricultural environments solved their ever-present problems. On a broad scale, they often found solutions in the common building traditions with which they were so familiar because of their lifetime experiences in the Dutch-American culture. On a more personal level, certain solutions were made that related to specific details in constructing their barns using their own special talents and sensibilities.

The two very unusual barns and the several barn forms that have been included in the new classifi-

cation system reflect the manner in which particular folk people living centuries ago demonstrated certain levels of consciousness at certain times and locations. They followed certain principles of construction techniques, both traditionally-based and self-imposed. Their thoughts are reflected by every detail, both big and small, seen throughout the barns they constructed. Builders had to carefully decide which thoughts would be successful in particular situations and often their decisions were based on widely accepted cultural and regional manners. However, common standards were not always used and certain farmers saw advantages in using particular construction methods that very likely were infrequently incorporated in many other barns. They chose to adopt certain features such as cantilevers or framing units such as *dekbalken* that satisfied their peculiar needs. That they did allows us to determine if the methods they used actually emerged as distinct barn forms within the context of the Dutch-American culture they lived in.

As it is, there are only a few barns left where we have the privilege of trying to imagine what barn builders’ and farmers’ thoughts were and why they may have had them. Our task and challenge is to try to categorize them in some meaningful way.

## End Notes

- 1 – Greg Huber, *Classification of various forms of Dutch-American barns*, The New World Dutch Barn Survey 2000, Herkimer, New York.
- 2 – Greg Huber, “Regionalisms in Dutch Barns: A Possibility for Future Subtyping,” *Dutch Barn Research Journal* 1 and 2 (1991 and 1992): 78 – 87.
- 3 – Conversation with Jaap Schipper of Amsterdam, Netherlands, June 16, 1998.

(continued on page 8)

## **THE GIANT 2003 DUTCH BARN SYMPOSIUM**

**This was the scene at the Ancramdale Spenser-Duncle barn, on October 4, 2003, when over one hundred people gathered to enjoyed the comments of this inestimable group of speakers discussing our favorite subject.**



**From left to right are – Paul Spencer, Carla Cielo, Roderic Blackburn, Don Carpentier, Bill McMillen, John Stevens, Greg Huber, Everett Rau, Alexander Greenwood, Randy Nash, Jack Sobon, Eric Endersby, Clifford Zink, and Peter Sinclair.**

**This was the first such endeavor and much credit must go to Hudson Valley Vernacular Architecture, the sponsor, and to Paul Spencer, the host and moderator. Audience participation was brisk and the spectators went away stimulated and edified.**

**(Photo digitally composed by Robert Andersen)**

## **Dutch-American Barns** (continued from page 6)

- 4 – G. Berends, *Historisch Houtconstructies in Nederland* (Arnhem, Netherlands: Stichting Historisch Boerderij-Onderzoek, 1996).
- 5 – Gregory D. Huber, "Framing Techniques as Clues to Dating in Certain Pre-Revolutionary Barns: Major and Minor Rafter Systems, Lapped Dovetail Joinery, Verdiepinghs, and Other Traits," *Material Culture* 29, No.2 (summer 1997): 1 - 42.
  - Peter Sinclair, "The Saugerties Barns – Six Dutch-American Barns in Ulster County," *Dutch Barn Preservation Society Newsletter*, Volume 9 Issue 1 (Spring 1996): 1 - 4.
- 6 – Greg Huber, "Cantilevered Dutch-American Barns," *Timber Framing*, No. 43 (March 1997): 8-9.
- 7 – Gregory D. Huber, "Ninety-degree Roof Rotations in New Jersey Dutch Barns," *Material Culture* 31, No. 1 (spring 1999): 1-20.
- 8 – Malcolm Kirk, *Silent Spaces – The Last of the Great Aisled Barns* (New York: Little, Brown and Company, 1994) 86 and 97.

*Gregory Huber, historian, author and lecturer was part of the panel of the 2003 Dutch Barn Symposium, that is pictured on page 7 of this issue.*

## **DUTCH BARN PRESERVATION SOCIETY NEWSLETTER**

This newsletter is printed by the Dutch Barn Preservation Society, a non-profit organization incorporated by the Regents of the State of New York.

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*Design & Printing:* The Albany Letter Shop

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www.dutchbarns.homestead.com

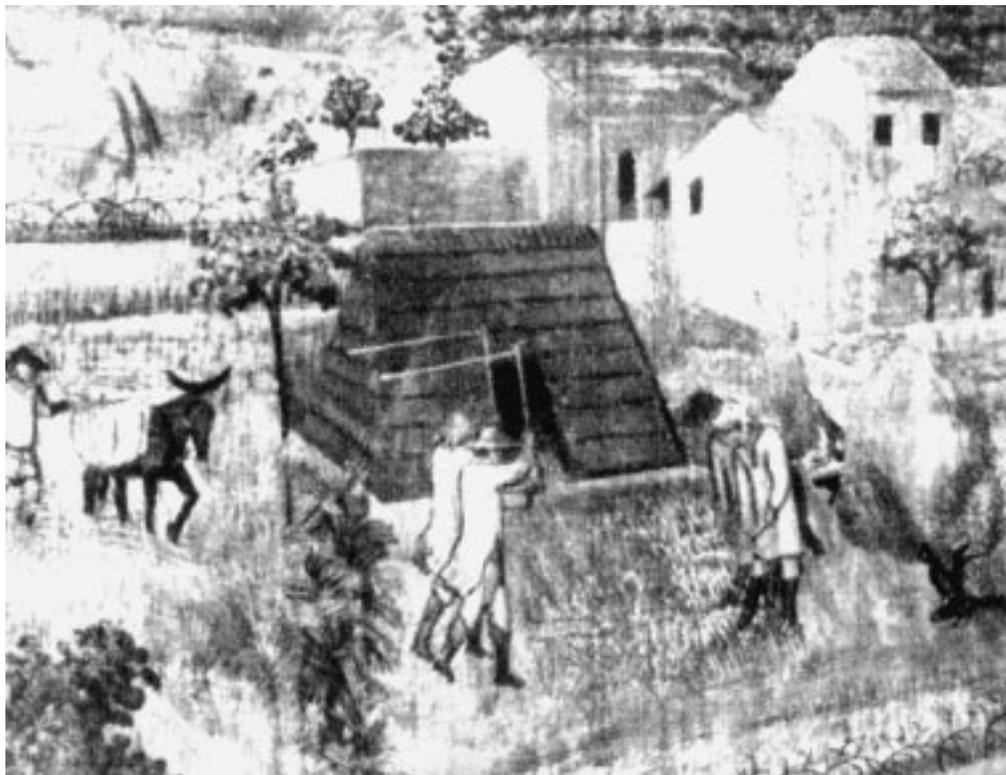
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AMBROGIO LORENZETTI,  
*THE EFFECT OF GOOD  
GOVERNMENT ON THE  
CITY, CA. 1338. FRESCO  
(SIENA)*

One can imagine the chant being sung by the pair of flailers, in the center of this detail of the ancient fresco, as they thresh the grain in unison.