

BARNS OF MID-MARYLAND
Carroll County, MD
Frederick County
Maryland

HABS MD-1275
MD-1275

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
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BARNs OF MID-MARYLAND

HABS NO. MD-1275

Location: The mid-Maryland region consists of Frederick, Washington and Carroll counties. The region is bordered by Pennsylvania in the north, Baltimore County in the east, Howard and Montgomery Counties and the Potomac River in the south and Allegany County and the state of West Virginia in the west. Fertile valley soils and proximity to major rivers, the Monocacy and Potomac, as well as to major markets in Washington, D.C. and Baltimore, blessed the region with some of the most agriculturally productive land in the state.

Description: This report looks at the types of barns found in mid-Maryland from the mid- to late eighteenth century up through the middle of the twentieth century. Three main classes of barns were found, and within those, several types represented. Overwhelmingly, the most prevalent class of barn seen in mid-Maryland is the bank barn;¹ consequently it presents the greatest variations in type. The bank barn was constructed from the earliest period studied until the first decades of the twentieth century. Many continue in use today. The other two classes of barns represented include the ground barn, of which log examples represent some of the oldest barns, and the modern dairy barn, a purpose-built structure developed in the early 1900s.

Significance: The mid-Maryland barn is significant as a vernacular structure whose variety of types and distribution represent the migration of people and cultures across continents and countryside as well as the longstanding importance of agriculture to the regional economy. The alterations and adaptations of the barn form signify the evolution of building traditions and technologies and the changing nature of agriculture in mid-Maryland over time.

Historian: Lisa J. Mroszczyk, HABS/SAH Sally Kress Tompkins Fellow, 2007.

¹ Bank barns generally have large dimensions. This kind of barn features multiple levels and is built into the side of a hill or an embankment. The lower level is served by an adjacent yard and, in mid-Maryland, fitted out for animals, and of those, mostly dairy cows. A ramp on the hillside provides access to the upper level and its central threshing floor.

PART I: Overview

European settlers established themselves in the mid-Maryland region in significant numbers beginning in the 1750s. Many Germans, Scotch-Irish and Swiss migrated from the Pennsylvania, where they had settled as early as the 1670s after experiencing several difficult winters.² Some remained in mid-Maryland while others moved on to points further south. The mid-Maryland landscape has been compared to the native mountainous landscape of the new settlers' homeland and possibly it was this familiarity that kept them there.³ However it is more likely that they stayed in the area because of the numerous factors creating a suitable environment for agriculture such as the network of intermountain valleys, the streams and rivers linking wheat farms to mills and transportation to coastal seaports, and the proximity to eastern cities and lime-based soils. English settlers also migrated to the region to find better soil for their crops than the depleted conditions resulting from years of tobacco production in the eastern and southern part of the state. Additionally, others came to mid-Maryland in order to remove themselves from areas under British occupation.⁴ Collectively, the environmental conditions and convergence of settlers in mid-Maryland led to the growth of agriculture in the 1780s and 1790s and the rise of the region into an important, southern wheat-growing locality.⁵ During this time Frederick County was one of the most productive wheat-producing counties in the state, if not in the first thirteen states. It held this position up until the 1880s.⁶ Washington and Carroll counties contributed to the area's thriving agricultural economy during this period as well.⁷ Apart from wheat, common crops within the region included corn, oats, rye, grasses, and fruit trees as well as the raising of livestock. Such productivity is reflected the number of farms established and in the many barns built to accommodate agricultural livelihoods and processes within the region. The choice of names for these farmsteads, such as the "Peace and Plenty" in Frederick County, are also emblematic of the region's bountiful nature.

When the earliest settlers arrived, the mid-Maryland was covered with dense forests of oak, hickory and chestnut, woods that provided the material for the log and timber frame barns, for which the fewest and greatest examples respectively remain today. There was also a plentiful supply of limestone for masonry construction and the mortar it required; that the materials were readily available is evident in the proliferation of stone barns in Washington County. In order to become established as farmers during this

² Kenneth M. Short, "The Sentiment of Timbers: Carroll County's Barns," American Studies Department, Western Maryland College, 2 February 1981, unpublished manuscript in the collections of the Historical Society of Carroll County, 5-6.

³ Charles S. Martin and Tom Rose, *The History of Wolfsville & The Catoctin District* (The Wolfsville Ruritan Club, 1972): 1.

⁴ Ibid. See also, Alice Crampton, Senior Architectural Historian, Engineering-Science, "Wyand Farmstead," Maryland Historical Trust State Historic Sites Inventory Form WA-II-1108, 3 June 1994.

⁵ Kenneth E. Koons and Warren R. Hofstra, et. al., *After the Backcountry: Rural Life in the Great Valley of Virginia, 1800-1900* (Knoxville: The University of Tennessee Press, 2000): 21.

⁶ Joseph F. Seng and Edgar William Rossing, eds., *Back When: The Story of Historic New Market, Maryland* (Westminster, MD: Heritage Books, Inc., 2005) and Thomas J. Scharf, *History of Western Maryland* (Baltimore: Regional Publishing Company, 1968): 362.

⁷ Scharf, 802, 974.

period, barns were the main priority, many times superseding the construction of the dwelling. Often the farmer and his family continued to live in a modest house for awhile after the barn was built. This practice was recommended by the *American Farmer*, a weekly agricultural paper published in Baltimore from 1819 to 1834. Farmers throughout the mid-Maryland region consulted the paper, and it has a reputation for being the leading journal for the spread of agricultural ideas.⁸ In 1819, the *American Farmer* advocated,

Do not commence with erecting costly buildings; but apply your time, efforts, and pecuniary means, to your farm; and shift on with tolerable accommodation until your fields warrant your providing better.⁹

Barns even superseded the construction of churches and schools and thus came to serve multiple purposes. In 1819, the Hoover Farm barn in Frederick County was used as a worship space by the United Methodist Church.¹⁰ During the American Civil War, barns took on the additional function of sheltering the wounded, particularly during the Battle of Antietam in Washington County. Several barns in Sharpsburg became makeshift hospitals, including those belonging to Henry Rohrback, John C. Middlekauf, Daniel Poffenberger, and John Otto.¹¹

The bank barn (described in more detail in Part II) is the most common type of barn seen within the region due to its ability to efficiently accommodate diverse agricultural practices. According to Eric Sloane, who studied and documented barns throughout the country in his sketchbook-like publications, the bank barn reached its height of its popularity at the end of the eighteenth century after which time it underwent minimal changes as a type.¹² This versatility was recognized by the *American Farmer* in 1819.

Our old fashioned barns, I believe, are not susceptible to much improvement. Those with cattle are wintered in, are built at a small distance from the house on a rising ground, with a yard open to, and descending a little to the south, if such a spot be near; it being thereby warmer...¹³

This description applies to a majority of the bank barns in mid-Maryland, of which many remain in use today. The south facing direction was also promoted in almanacs with the phrase, “Slope your barn

⁸Paula S. Reed, “Tillers of the Soil: An Agricultural History of Mid-Maryland and Historic Context,” prepared for The Catoclin Center for Regional Studies, 2006, 64 citing Avery Craven, *Soil exhaustion as a factor in the agricultural history of Virginia and Maryland, 1606-1860* (Urbana: University of Illinois Studies in the Social Sciences, 13, no.1, 1925): 107.

⁹John Stuart Skinner, *American Farmer* (Baltimore, MD: Printed for John S. Skinner, by J. Robinson): 2 July 1819.

¹⁰ Martin and Rose, 55.

¹¹ Reed, 94.

¹²Eric Sloane, *An Age of Barns* (NY: Ballantine Books, 1967): 32.

¹³ *American Farmer*, 31 December 1819.

‘gainst northern blast, and the heat of day is made to last’¹⁴ and proved, from the number of barns following this adage, to be the most advantageous arrangement for protection against the weather and gaining warmth from the sun.

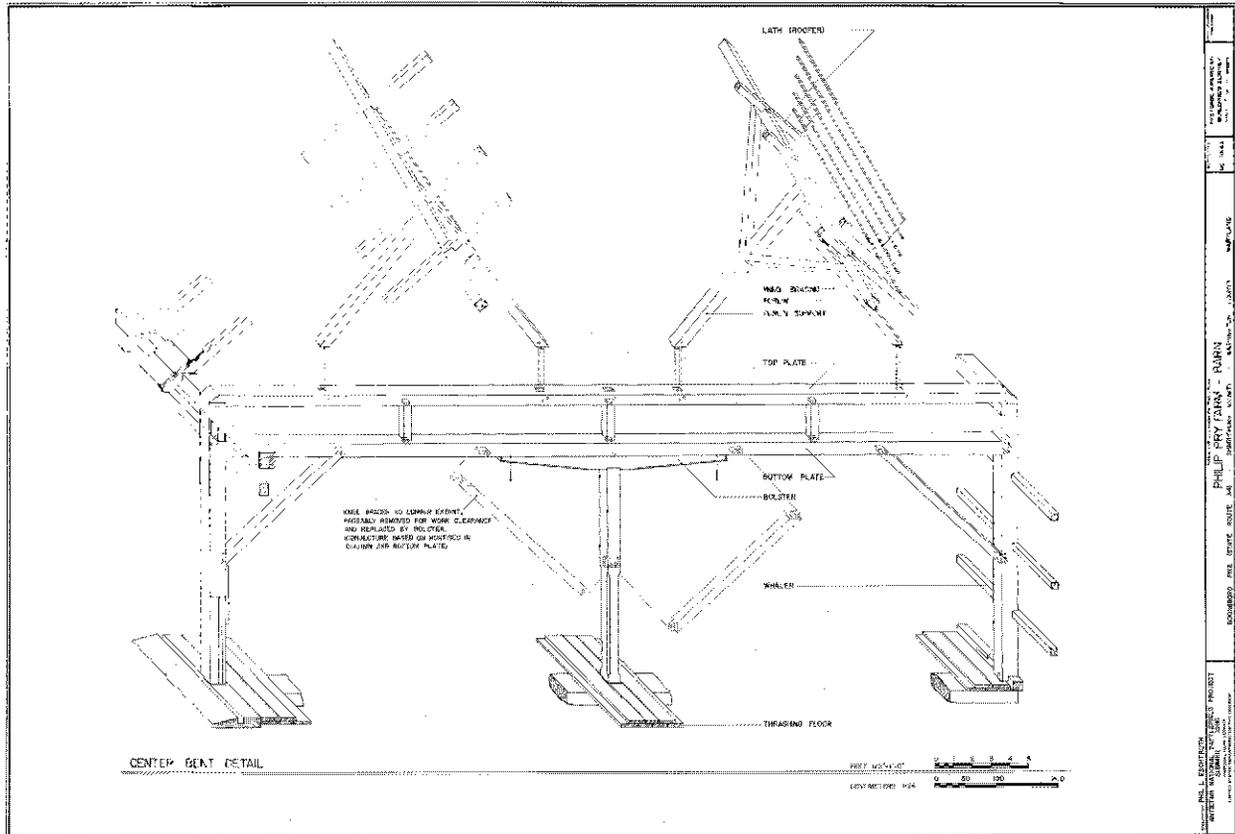


Figure 1, Philip Pry Farm Barn, typical canted queen post bent detail, Antietam National Battlefield, Washington County, built ca. 1844 (drawn by Phil L Eschtruth, National Park Service Historic American Buildings Survey, MD-864-A, 1986)

Heavy timber frame was the most common method of barn construction.¹⁵ These barns were designed by skilled builders or contractors who were also responsible for overseeing the structure’s assembly.¹⁶ In

¹⁴ Short, 19, citing Eric Sloane, *Barns and Covered Bridges* (Mineola, NY: Dover Publications, 2002): 60.

¹⁵ Timber-framed buildings are those with timbers as structural elements (walls, roof, floor composed of posts, beams, braces, girders, sleepers, joists, studs, plates, rafters, and sometimes purlins).

¹⁶ These barn builders were identified through a survey the barn raising coverage in *The Daily News (Frederick)* and *The Frederick Post* covering the years 1898 to 1937. There were likely many barn builders before this period and others not covered in these newspapers that could be identified. A list of the barns with known builders is included in an Appendix. Comparing barns with known builders to those without may reveal patterns of workmanship, which could then suggest a builder. Two prolific barn builders in Frederick County in this period were George E. Fulmer, who worked with carpenters Walter Whip, Albert Hargett, Edward Poole, George Cline, and Mason Marsh; and Charles Duderar of Urbana, who worked with carpenters Charles Droneberg, John Knot, Rion Anderson, Joseph Tucker, Gary Waltz, Edward Cecil, Arthur Anderson, Harry Strube, Frank King, Lester Ausherman John Strup, Dorsey Lewis, Earl Linthincum, W.A. Smith, and Zach Harris. Others known in the area were Theodore Shaffer of Middletown, E. Lee Smith, J. Newton Smith of Wolfsville, Carle Summers of Harmony, William

some cases a farmer would advertise in local newspapers for a barn builder's services as seen in this 1826 notice in the *Torch Light*, a Hagerstown, Maryland, publication.

The subscriber, living near Williams-Port, wishes to receive proposals for building a barn, which is to be 85 feet by 52. 2 tramping [threshing] floors, and a granary at each end. The materials to be furnished by the undertaker.¹⁷

After the builder, who may have also supplied the materials and a crew of carpenters, laid out the bents¹⁸ on the ground (see Fig. 1 for a typical canted queen post bent configuration and Appendix A for more detailed images and description of barn timber framing). They then oversaw its raising by the farmer, his farmhands, sons, neighbors and friends, after which the builder was paid.¹⁹ Barn raisings were major social events commonly attended by rarely less than forty people, and in some cases up to almost three hundred. The occasions were recorded in the local newspapers. In exchange for the help in raising the barn, the farmer and his wife provided friends and neighbors with an elaborate meal consisting of meats, vegetables, rolls, cakes, pies, sandwiches, and ice cream. In at least one case, the size of a barn was referred to in the number of pies it took to feed the men who raised it, as in a "Sixty-Pie Barn."²⁰ From the coverage in local newspapers, it appears that barn raisings generally took place between May and September with the greatest number occurring in the months of June and July. This coincided with the harvesting season, which began in the end of June through early July and with the threshing taking place in August and September.²¹ From the listing of attendees in the newspapers, it is apparent farmers frequented each other's barn raisings and in some cases they may have exchanged additional services such as help drawing wheat.²² Barn raisings were also dangerous. There were several, documented instances when a friend or neighbor was severely injured or crushed by a falling timber. A barn could be constructed fairly quickly, as long as the materials were placed properly by the builder. The timber frame structure of a barn could be raised in as little as one-half day and the weatherboard siding almost

E. Henrickson working with Harry E. Betson of Monrovia, Harrison Mort of Woodsboro, Calvin and Emory Shaffer of Middletown, George Geesey, Elroy Leatherman, J. Vernon Lowman, Charles Datrow, William Cannon, Guy Nusz, Clayton and Roy Cannon. *The History of Wolfsville and The Catoclin District* (p. 31) provides additional names: Charles E. Delauter, Ira Warrenfeltz, Lank Palmer, Elmer C. Brandenburg, Elmer Delauter, John Palmer, Urner Hays and Fran Easterday. According to Ken Short in *The Sentiment of Timbers: Carroll County's Barn* (p. 35), Charles Wills was a known barn builder in that county.

¹⁷ Advertisement placed by Otho Williams of Williamsport for a barn needed by November 13, *Hagerstown (Maryland) Torch Light*, 12 October 1826, 2.

¹⁸ The term "bent" refers to framework that is designed to carry both vertical and lateral loads and is transverse to the length of a framed structure.

¹⁹ Sloane, 52.

²⁰ Mary Kendall Shipe, Historic Sites Surveyor, Frederick County Planning and Zoning Department, "Dotterer Farm," Maryland Historical Trust State Historic Sites Inventory Form Sheet F-6-061, May 1991.

²¹ Koons and Hofstra, 22.

²² "Erratic Money," *The Frederick (Maryland) Post*, 10 April 1933.

completed by the end of the day if not finished, along with the roof, by the farmer himself at a later time.²³ A series of photographs in the collection of the Carroll County Historical Society illustrates the various stages of the raising of the Yingling Barn as the men use long poles to push the bents upright, moving from one end to the other.

Known as the “Farmer’s Age,” the nineteenth century saw increased production, and agriculture continued to dominate the economy of the region. Sally McMurray, Professor of History at Penn State University, writes that during this time more barns were built and significantly remodeled than in any other period. She notes these, “huge, gorgeously decorated barns that appeared on the landscape,” were accounted for by, “changes in agriculture...more capital intensive farming [that] demanded larger, more elaborate, more expensive buildings

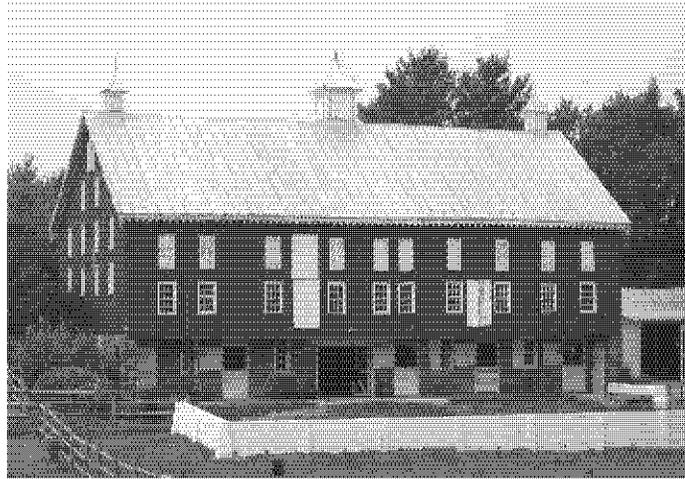


Figure 2 Bauer-Bachman Farmstead, Carroll County

than ever before...the barn overwhelmed the house in scale.”²⁴ Although McMurray is describing Western Pennsylvania, the same can be said of mid-Maryland, for example the large, timber-frame bank barn with decorative a barge board and cupolas on the Bauer-Bachman farm in Carroll County that was erected in 1879 (Fig. 2).²⁵ In 1880 Frederick County alone produced over one million bushels each of corn and wheat, and larger and more permanent buildings resulted from this success.²⁶ Barns from the eighteenth century may have generally been on the order of 800 to 1200 square feet whereas as the barns from the second half of the nineteenth century could be seen on the order of 3000 to 5000 square feet. In the 1880s historian J. Thomas Scharf observed this trend in Frederick County writing that

The inhabitants are intelligent and industrious, and mainly devoted to agriculture. The farms are finely improved with large barns and substantial dwellings that bespeak the prosperity of the owners.²⁷

²³ Short, 37.

²⁴ Sally McMurray, *From Sugar Camps to Star Barns: Rural Life and Landscape in a Western Pennsylvania Community* (University Park: Pennsylvania State University Press, 2001): 37, 147.

²⁵ Joe Getty for the Carroll County Department of Planning, “Frederick Bachman House,” Maryland Historical Trust State Historic Sites Inventory Form CARR-1152, October 1985, the barn measures 43 feet by 80 feet or 3440 square feet.

²⁶ Geoffrey E. Melhuish and Jane Armstrong with R. Christopher Goodwin and Associates, “Charles Millard House,” Maryland Historical Trust State Historic Sites Inventory Form F-1-120, 5 November 1997; Scharf, 370; and Reed, 77.

²⁷ Scharf, 363.

With increased output and as more barns were built, there arose a greater interest in designs for new barns and in the remodeling of existing barns for efficiency and for their influence on the productivity of the farm. One forum for this new focus was the increased activity of agricultural societies, exhibitions, and fairs for sharing knowledge.²⁸ Another venue was through various architectural plan books and other publications. Once such work was Byron D. Halsted's *Barns, sheds & outbuildings: placement, design, and construction*, originally published in 1881, in which he describes the methods the farmer should use to achieve the most pleasing and efficient barn. Halsted emphasized symmetry, advocating for sufficient size and yet minimizing attached sheds and stables so as not to disrupt the completeness of the barn. His recommendations include situating the barns "upon a rise of ground, where a cellar can be built, opening upon the lower ground in the rear,"²⁹ in essence describing the typical banked barn that had been built in the mid-Maryland region and southern Pennsylvania for almost a century. The accompanying illustration in *Barns*, however, resembles a mid-Maryland barn only in this respect, with no forebay and with the ramp on the gable end.

Local newspapers, *The Frederick Post* and *The Daily News*, also published advice for farmers concerning the construction of barns. The newspapers included building plans and accounts of new technology with an emphasis on increased productivity.³⁰ The rise of dairying introduced a new barn type for which alternate interior arrangements were presented. In 1897 *The News* (Frederick, MD) offered a plan for a dairy barn that was furnished by Jared van Wagemen; the layout was previously published in *The Rural New Yorker*. It consisted of a half basement ranging from 32 to 36 feet in width, the minimum needed to allow for two rows of cows facing the outside, with a feeding alley in front of each and a manure drive down the middle. Unlike the width, only the number of animals to be accommodated inside limited the length of this kind of barn. The need for sunlight and ventilation were also major considerations. The plan by van Wagemen was in the form of a cross with the shortest arm of the crosspiece holding the main entrance and a granary on the second floor. The longer arm of the cross piece provided a hay mow above while housing sheep, horse and calves in the basement beneath.³¹ A dairy barn following this cross-shaped plan was observed on Teeter Road in Carroll County (Fig. 3).

²⁸ Frederick County established an agricultural society in 1821 and had a well-established yearly exhibition by 1880 (Scharf, 446-47). The Washington County Agricultural Society was first founded as early as 1807 and, after several cycles of disbanding and reorganizing, began holding its annual fair in 1854 an event that became increasingly more established through the 1870s (Scharf, 1192-93). The Carroll County Agricultural Society was incorporated in 1869. Scharf, 892.

²⁹ Byron D. Halsted, *Barns, sheds and outbuildings* (Brattleboro, VT: Stephen Green Press, 1977): xi.

³⁰ An article in *The News (Frederick, MD)* from 19 August 1893 titled "A Good Barn" wrote the following: A good barn will aid you increasing the profit from the farm. We are now coming toward a good time of year for building. But before you begin make a thorough study of plans. Modern barns are built differently from the sort that was in favor thirty years ago, and they serve the present needs better. One item in building is to do it so that you may feed with the least possible labor.

³¹ "Cow Barn, Convenient Dairy Stables Built in the Form of a Cross." *The News (Frederick, MD)*, 27 March 1897.

Another factor accounting for the innovations in barn construction was the increase in the number of barn fires when compared to any other building type in the first decades of the twentieth century. The fires were primarily caused by the heating and spontaneous combustion of hay curing in the mows or by lightning strikes. If a fire occurred, the crops, machinery and livestock (potentially totaling over one and half times the value of the barn they were stored in, at least in ca.



Figure 3, Teeter Road in Carroll County

1913) could easily be destroyed leaving only the foundation.³² Barn fires were frequent in the region. Many barns built in the early twentieth century merely were replacing those that had previously burned. One such example, in Frederick, was a January of 1912 fire at the J.H. Etzler barn located on the Liberty Turnpike near Mt. Pleasant. The timber frame structure was said to be one of the largest in the area consisting of the original barn and a later addition. The account of this fire claimed spontaneous combustion, arson or a lantern accident as the cause. Either way, the mow storing millet hay and sweet corn fodder became a mass of flames and caught the other mow on fire. All of the farm's machinery was destroyed as well.³³

To solve this serious and costly problem, new materials were introduced into barn construction. In 1906, *The Daily News* in Frederick reported a new barn being built entirely from concrete and steel in Fayetteville, New York, describing it as "entirely up-to-date." The Fayetteville barn was 40 by 100 feet with an eight-foot basement supporting a trussed steel frame gambrel shaped roof and two silos at one end. This dairy barn arrangement varied from plans presented previously in that the cows would stand facing each other.³⁴ The search for a fireproof barn continued for several decades. In 1933, the first insulated metal barn in the eastern section of the United States, and the second only in the county, was constructed at St. Joseph's College near Emmitsburg in Frederick County. Its purpose was to do away with "fire-trap hay mows" and prevent fires in an attempt to revolutionize barn construction. It featured an anchored, self-supporting roof clad in metal and padded with two layers of insulation as well as two air spaces. It also had metal doors and windows with a controlled ventilation system. The hayloft was replaced with a steel cylinder set within another steel cylinder, the space between which was used to store hay while the very center was used for corn or other storage. Flues were incorporated which released steam and gas from the heating hay. This new barn claimed to be the solution to barn fires and reducing

³² "Heating of hay in mow cause of many barn fires," *The News (Frederick, MD)*, 31 July 1913.

³³ "Fire Destroys Barn," *The News (Frederick, MD)*, 25 January 1912.

³⁴ "New Barn Building, A Strictly Modern Structure, Employing Steel and Concrete," *The News (Frederick, MD)*, 17 March 1906.

insurance costs.³⁵ One example of this kind of barn may be that on the Martin Farm and discussed in Part II (Type L3, Fig. 19).

Farmers were not only concerned with new construction but also with adapting their existing barns to accommodate new technologies such as steam or gas powered threshing machines, the hay track or horse-powered hay forks. These innovations led to physical or structural alterations, such as dormers or modified bent configurations.³⁶ A common modification seen throughout the mid-Maryland region is the enclosure of the forebay on the ground level (Fig.4) or the addition of attached sheds, whether for straw or loafing. The straw barn and the loafing barn serve a similar purpose, providing additional sheltered space for livestock and for the storage of hay. The straw barn was described by John L. Shawver, the author of *Plank Frame Barn Construction* and a contributor to *The National Stockman and Farmer*, a weekly publication out of Pittsburgh, Pennsylvania. Shawver's straw barn was reproduced in *The Daily News* in 1899. Shawver wrote that the cheapest form of the straw barn was one that was attached to the main barn with a metal shed roof of low pitch providing a covered barnyard and a straw loft (Fig. 5). This article also suggests in another method for building a covered barnyard and straw barn in the form of a wing extending off the main barn with a gable roof at the same ridge height as the main barn.³⁷ Although not always at the same ridge height, additions along this line are seen within the region (Fig. 6). This type of addition was later called a loafing barn, or shed which was used for sheltering cows between milking. The loafing barn is a large open building with hay and feed racks as its only equipment providing for a saving in labor and better manure. The advantages of a loafing barn were, "better herd health and a lower

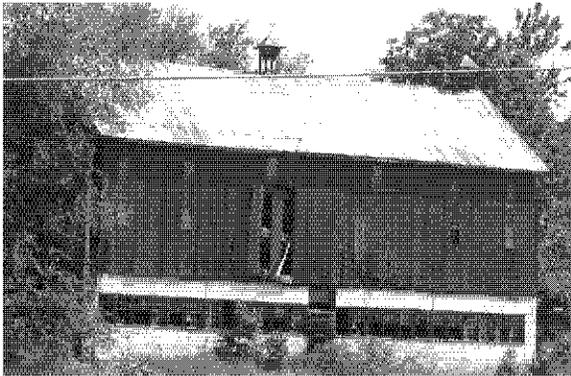


Figure 4, John N. Clay Farm Barn, Concrete block enclosed forebay at 4105 Bill Moxley Road, Frederick County

original investment per cow," which may "be particularly true where large old barns need to be remodeled."³⁸ These additions often extensively altered the ground level of a barn making it hard to determine the original forebay configuration but are also important in their own right for representing the changing trends and technologies in agriculture.

³⁵ "Install First Fireproof Barn at Emmitsburg," *The Frederick (Maryland) Post*, 4 November 1933: Despite these innovations, barn fires continued to occur. According to *The Daily News* from 18 August 1938 the farm of John W. King, a 30 by 38 foot barn on Harpers Ferry highway between Jefferson and Feagaville was struck by lightning in August of 1937. King was able to remove the wagon but lost the wheat crop, hay crop, three plows, a drill, two fodder cutters and a quantity of harnesses. The barn burned so rapidly and caused such heat that it was impossible to enter the structure even a few minutes after the fire was discovered. Charred remnants of timber frame structure remained. King had no insurance on the building or crops and suffered 1500 dollars in losses.

³⁶ McMurry, 147.

³⁷ "The Straw Barn," *The News (Frederick, MD)*, 6 May 1899.

³⁸ "Cows Will Now Spend Time In 'Loafing Barn'" *The News (Frederick, MD)* 12 September 1949.

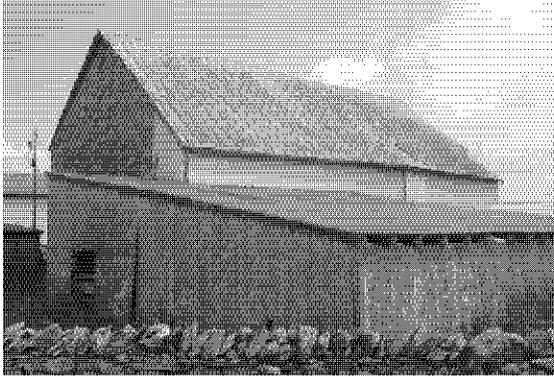


Figure 5, Shed addition, Shepherdstown Pike, Washington County



Figure 6, Gabled addition, 20822 Millers Church Road, Washington County

According to folklorist Henry Glassie, agricultural practice in the mid-Atlantic progressed with traditional building until World War I, after which time dairying took hold and led to a new type of barn.³⁹ This shift is reflected in The Annual Report for 1924 prepared by the Frederick County Office of the Agricultural Extension of the University of Maryland when they wrote

...for a number of years past the County has and is undergoing a change from beef cattle, hogs, sheep, poultry and some dairying to dairying...dairying has been accepted as the most profitable income from livestock...⁴⁰

As agriculture shifted away from crops to dairying, farmers soon found themselves with bank barns that were increasingly obsolete and inefficient in design for the demands of dairying. They then adapted these structures as best as they were able. With the passage of the Meat Inspection Act of 1890, amended in 1906, the United States Department of Agriculture (USDA) began to enforce standards of sanitation and hygiene in the meat and dairy industries.⁴¹ This regulatory act led farmers to make additional modifications to their barns in order to sell their milk commercially, such as installing concrete floors and whitewashing the interiors. One method used by the USDA to enforce these regulations was a dairy score card that ranked the health of the herd, cleanliness of cows, employees and utensils, and the handling of milk.⁴² In 1930, the Frederick County Agricultural Extension Office recognized a new gambrel dairy barn owned by R.L. Dade & Son for scoring “100% on the Washington market.”⁴³

³⁹ Henry Glassie, *Patterns in the Material Folk Culture of the Eastern United States* (Philadelphia: University of Pennsylvania Press, 1968): 198.

⁴⁰ P.W. Chichester, “Annual Report of the (Frederick) County Agricultural Agent,” Maryland Cooperative Extension, 9.

⁴¹ United States Department of Agriculture, “Early Developments in the Dairy Industry” Special Collections the National Agriculture Library [<http://www.nal.usda.gov/speccoll/images1/dairy.htm>], accessed 12 July 2007.

⁴² Ibid.

⁴³ H.R. Shoemaker, *Annual Report of the (Frederick) County Agricultural Agent*, Maryland Cooperative Extension, 1930, 80.

During this time new barns were less likely to be designed and built by builders and craftsmen traveling from farm to farm and utilizing locally found materials such as clay and timber. New materials, such as the concrete, were now commonly used. Barn construction, moreover, ceased to be a major community social event. In 1930, the Annual Report from the Frederick County Extension Office reported on the success of a filmstrip titled, "Modern Dairy Equipment in Frederick County," produced for the Agricultural Engineering Division that

...shows many of the modern dairy barns, dairy houses and silos which have been constructed in the two years prior to 1930. It was used many times at farm meetings and proved helpful to dairy farmers who were contemplating construction of new buildings. It was of especial value in pointing out mistakes in construction, type of building and location.⁴⁴

Continuing on, the report notes that approximately seventy-five new dairy barns had been built in the three years prior to 1930, some having been erected "cheaply and well," while other farmers, "have spent more than necessary."⁴⁵ In the several years following the production of the filmstrip, the County Office continued to identify expensive, inconvenient buildings as a problem. They publicized plans for farm structures and recommended farmers consult the Agricultural Extension before commencing work on any new farm building.⁴⁶ In 1931, the County Office's recommendations had been heeded for thirty new dairy barns were constructed, and the Division of Agricultural Engineering of the Maryland Extension Service furnished most of the plans.⁴⁷ Collaboration persisted for at least another year. In 1932, Agricultural Extension continued to assist farmers in remodeling their barns to meet the requirements of the Health Department; County Agent C.E. Wise visited a number of dairy farmers to help lay out the new barn arrangements.⁴⁸ Other events were held to inform farmers of new techniques, including methods for building their barns, such as the Maryland Conservation Field Day in 1948. During this event, a twenty-two cow dairy barn was raised on a farm that had been producing poorly due to the inadequacies of their barn. Set on concrete block, the roof of the new barn was to be a prefabricated lightweight metal Quonset-like structure with a semi-circular cross section, constructed following the specifications of the Washington, D.C. milk-shed.⁴⁹

The numerous barns that have for centuries dotted the mid-Maryland landscape are disappearing due to long-term neglect or by the encroachment of large-scale commercial and residential developments. If these developments do not lead to the barns being destroyed, the new subdivisions disrupt the relationship

⁴⁴ Ibid, 79.

⁴⁵ Ibid.

⁴⁶ H.R. Shoemaker, *Annual Report of the (Frederick) County Agricultural Agent*, Maryland Cooperative Extension, 1931, 19.

⁴⁷ Ibid, 70.

⁴⁸ H.R. Shoemaker, *Annual Report of the (Frederick) County Agricultural Agent*, Maryland Cooperative Extension, 1932, 70.

⁴⁹ "Modern Dairy Barn will be erected on Thrasher Farm," *The News (Frederick, MD)*, 21 July 1948.

of the barn to the land. In Walkersville in Frederick County, the formal development of farms into subdivisions began in 1957 with the Cramer Farm, followed by the Staley Farm in 1963, the Houck Farm in 1967, and the Burrier Farm in 1972.⁵⁰ The Elmwood Farm on the National Pike, west of Frederick, was replaced with the Fredericktowne Mall in the 1970s.⁵¹ The nature of agriculture has changed dramatically from the period that produced the barns presented here. New technologies require larger machines, farms and production facilities. Economic shifts and a declining rural population impact the landscape as well. Some barns are being dismantled for the lumber or in fewer cases adaptively reused as housing. Both threaten the historic integrity of the material and structure.⁵² Another option is the dismantling and reconstruction of a barn on an alternate site, like the Carroll County Farm Museum, which in addition to its two original barns, has two relocated barns with a third to be added with in the next several years.⁵³

PART II: Typology

This typology of barns was developed over three months, from June to August of 2007. It is based largely on field visits, photographic documentation, and additional research undertaken in that time frame as well as on a review of documentation and survey forms prepared by or for the Maryland Historical Trust, on a study of historic photographs, and on available agricultural publications. The project goal was to be as wide-ranging as possible, in the time period outlined, but cannot claim to be entirely comprehensive due to the broad scope of the project. There may be, certainly, other types of barns in the three-county study area that are not categorized, that somehow escaped mention in previous surveys and in this summer's recording effort.

Nonetheless, there are mainly three classes of barns in the mid-Maryland region: the bank barn, the ground barn, and the modern dairy barn. The bank barn is overwhelmingly the class with the most extant examples in the region and, therefore, the type to which the most information in this section is devoted. Detailed examples of each type will be made from barns located in Frederick, Washington, and Carroll counties. Within each, there may be several types or sub-types highlighted to distinguish variations in construction, materials, and form. Attached to this report is a catalog of all barns studied organized by county and type (Appendix B).

CLASS I: Bank Barns

Bank barns are also referred to as Pennsylvania barns, Pennsylvania German barns, Swisser, or Sweitzer barns. One of the earlier studies of the typology of bank barns was conducted by Charles Dornsbusch and John Heyl; their work was published in 1956. Titled *Pennsylvania German Barns*, the study draws largely on barns found in the state of Pennsylvania. Dornsbusch and Heyl present eleven types of barns and refer

⁵⁰ Gilmore C. Trout, Mary M. Nicodemus, John and Ann Hunt, Charles and Kathryn Nicodemus, K.C. Nicodemus, *Walkersville, Maryland: The Tale of Two Villages*, (Walkersville, MD: The Commissioners, 1977): 14.

⁵¹ Frederick County Historical Society, *Images of America: Frederick County* (Charleston: Arcadia, 2005): 18.

⁵² Michael J. Auer, *Preservation Brief 20: The Preservation of Historic Barns*, United States Department of the Interior, National Park Service, Technical Preservation Services.

⁵³ Dottie Freeman, Director of the Carroll County Farm Museum, Personal Communication with the author, 10 July 2007.

to both bank and ground barns as “Pennsylvania barns.” Due to the fact that many German and Scotch-Irish settlers from southeastern Pennsylvania migrated south through the counties of mid-Maryland, many of these types are applicable to this study as well. A more recent examination, *The Pennsylvania German Barn*, by Robert Ensminger was published in 1992. Ensminger expanded upon and revised the types presented by Dornsbusch and Heyl in an effort to more fully represent the Pennsylvania barn and to place it in context, relating the Pennsylvania barn to those in other regions. He draws on a range of examples from Switzerland, Pennsylvania, Maryland, Ohio, and Indiana for the development of his typology. Ensminger ultimately divides the bank barn into three main classes: the Sweitzer Pennsylvania barn with an asymmetrical gable configuration, the standard Pennsylvania barn with a symmetrical gable configuration, and the extended Pennsylvania barn that includes any with projections beyond the main structure on the banked side.

Since the HABS study also covers several types of ground barns and modern dairy barns, bank barns have been grouped into one class. This class covers all barns that have the foundation of one wall cut into the slope, or bank, of earth thereby providing protection from the weather and access to either level from grade. The preferred orientation for the bank barn was with the ramp wall facing north or northwest and the forebay wall facing south or southeast. This provided the greatest protection from the harsh northern weather and the most benefit from southern warmth. Of approximately 200 barns in the three counties for which the forebay, the cantilevered section over the entrance to the first level of the barn from the yard, direction could be ascertained, about 34 percent of the barns have or had forebays facing south, 31 percent have or had forebays facing east and about 14 percent face southeast. The fewest number of barns, less than half of a percent, have forebays facing northwest.⁵⁴ Generally bank barns were built parallel to the slope of the hill and if the topography was not conducive to the south facing arrangement, the barn could still be constructed facing south and be “banked” with the addition of a built up ramp, with or without stone supporting walls, to create an artificial slope. Regardless of type, all bank barns were built for the same purpose that dictated a similar arrangement on the interior.

The bank barn had three primary functions, which were to provide a space for threshing and for storing grain as well as for sheltering livestock. Threshing was carried out in the center bays of the second floor in what was called a threshing floor. Threshing was the process by which a flail, a tool with a long thin wood handle with a hinged wood beater, was swung down on wheat placed on the threshing floor breaking the seeds from the husks, a task that was later done with horse- or steam-powered threshing machines.⁵⁵ Once the wheat was threshed, the chaff was separated from the grain by winnowing. Winnowing involved using a half-oval shaped tray with two handles to scoop up the threshed grain. The grain was then thrown up into the air allowing the lighter chaff to be carried off by the wind and the heavier grain to fall back into the tray or to the threshing floor. These processes required openings on either end of the threshing floor to facilitate airflow and flooring that was either tongue-and-groove or

⁵⁴ These percentages are based information for approximately 200 barns in Frederick, Washington, and Carroll counties. They are drawn from documentation on file at the Maryland Historical Trust and from that gathered on site field visits during the summer of 2007.

⁵⁵ Reed, 78.

battened to prevent the loss of grain. Flailing or mowstead walls about four feet in height separated the threshing floor from the mows, which were spaces for storing hay and straw. The walls also helped to contain the threshed and winnowed grain in the center bays.⁵⁶ The upper floor plan of the Joseph Poffenberger Barn (Fig. 7) is representative of most interior arrangements of bank barns with the central threshing floor and flanking mows. The Poffenberger Barn also has a granary built in to the southeast corner in the forebay section.

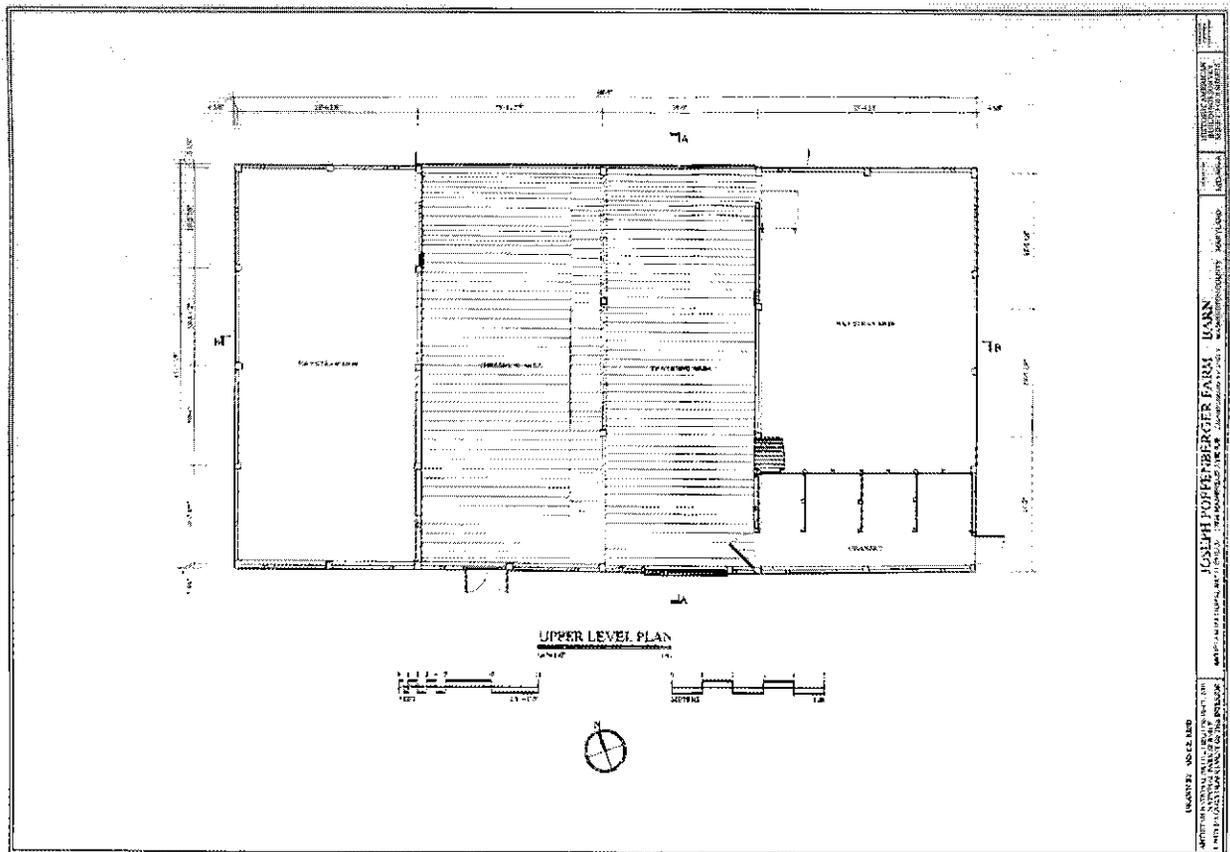


Figure 7, Joseph Poffenberger Farm Barn, Upper Level Plan, Antietam National Battlefield, Washington County (drawn by Anne E. Kidd, National Park Service Historic American Buildings Survey MD-966-A, 2005)

⁵⁶ Sloane, 50.

Granaries provided storage for feed for livestock there on the farm and for grain awaiting transportation to a mill.⁵⁷ Many barns had granaries constructed with partition walls within the mows to store the winnowed grain. A common location for granaries was along the forebay wall in the cantilevered section to keep their contents “high and dry.”⁵⁸ Granaries are also seen along the ramp wall and in some cases the granaries were built as projecting extensions on the ramp side of the barn. Care and detail were given to the construction of granaries. Ken Short, who studied barns in Carroll County, noted that they were often the “most finely finished part of the entire structure,” with unique styles of hooks, hinges and latches.⁵⁹ This was the case with the granary at the Roulette Farm barn at the Antietam National Battlefield in Washington County with its decorative strap hinges. Several barns were also observed that had projecting granaries on either side of the ramp that were constructed of brick or stone masonry even when the rest of the barn was made of timber frame construction (Fig. 8).

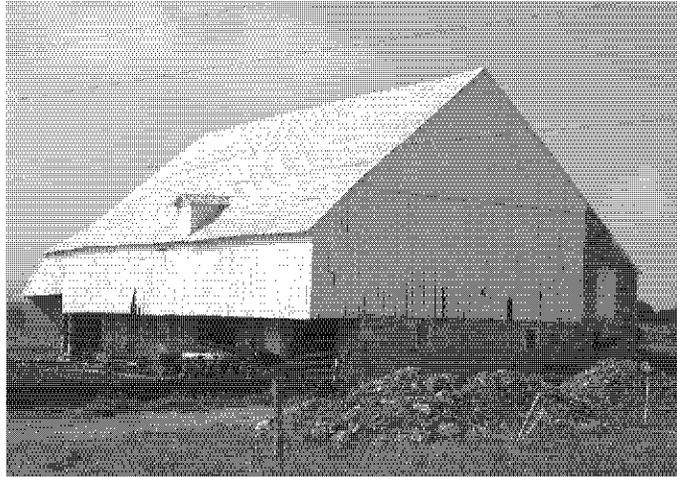


Figure 8, Stone granaries, Misty Meadow Farm, 14236 Misty Meadow Road, Washington County

The first floor of a bank barn was used for sheltering and feeding livestock. It was usually arranged with stalls running perpendicular to the forebay with an aisle along the back wall, which may have been accessible from a set of stairs descending from the threshing floor and may in some cases also been accessible from a door in the foundation. Aisles ran between stalls to access feeding troughs. Two-part Dutch doors were commonly used, one for each row of stalls and one for each aisle, opening onto the barnyard so as to allow light in while still containing the animals. The overhanging forebay provided protection for these entrances. The following lower level plan of the Poffenberger Barn shows one possible arrangement of stalls and aisles (Fig. 9).

⁵⁷ Reed, 80.

⁵⁸ Sloane, 50.

⁵⁹ Short, 17, 21.

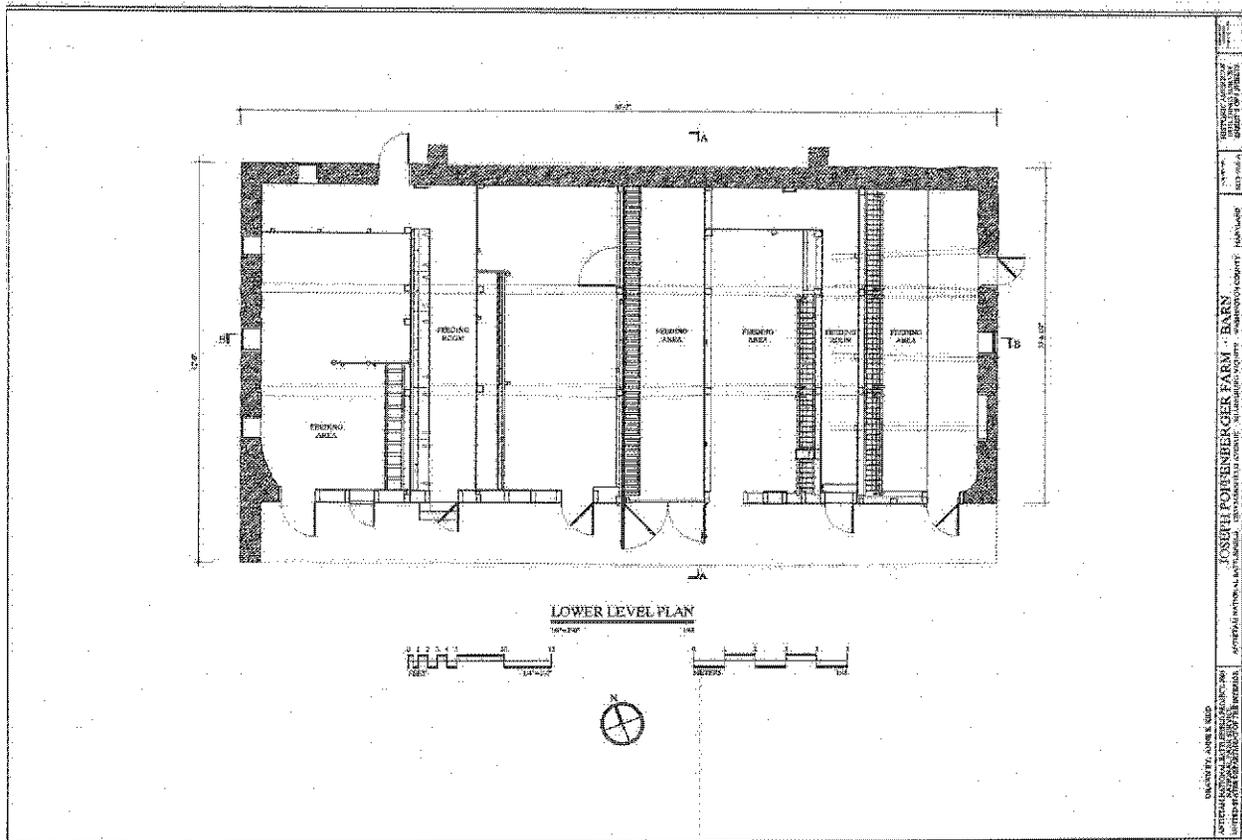


Figure 9, Joseph Poffenberger Farm Barn, Lower Level Plan, Antietam National Battlefield, Washington County (drawn by Anne E. Kidd, National Park Service Historic American Buildings Survey MD-966-A, 2005).

Foundations were found almost entirely to be made of rubble or fieldstone. Some were coursed and some had quoins. These thick foundations were held together by an interlocking or bonding system of stones cushioned in clay lime mortar, which supported the upper structure but did not tie into it. The foundations were instead held in place by their own weight.⁶⁰ Of the approximately 350 extant barns reviewed, the primary method of construction in all three counties was solely pegged mortise-and-tenon timber at about 60 percent overall. This is not surprising since early accounts of the region note the abundance of timber such as oak, hickory, walnut, chestnut, maple, and hickory.⁶¹ Framing methods tend to consist of slight variations on post-to-purlin and queen post systems with one observed example of a king post framing system. Several examples with detailed descriptions and photographs are included in Appendix A.

The secondary building material was stone, largely limestone. Approximately 25 percent of the barns overall used stone in the exterior walls either exclusively, not including the forebay wall which was always of timber, or in combination with timber framing in the gable sections. Washington County was

⁶⁰ Reed, 81.

⁶¹ Scharf, 14, 20.

found to have the greatest number of stone barns where limestone was present with great availability. Variety and quality of limestone could be found in the blue, yellowish-red and white color ranges that proved good for building.⁶² Stone barns were constructed in Frederick and Carroll Counties although less frequently even though limestone was also available there.⁶³ Only about 10.5 percent of barns overall had exterior walls constructed of brick or brick in combination with timber framing, similar to its combination with stone. Carroll County had the greatest number of brick barns. This, too, is consistent with the geology that here in Carroll County was largely characterized by clay, gravel, and sand.⁶⁴ The brick barns were built by master masons traveling from community to community; these masons burned bricks of clay found on the farms and created the intricate patterns found on most brick barns.⁶⁵ According to a study conducted by Ken Short, most brick barns in Carroll County are located in the triangular region between Westminster, Union Bridge and New Windsor.⁶⁶ The fewest, approximately two percent, of extant barns were fashioned of log construction. This low percentage is not necessarily an indication of number of log barns that once stood, as this was the earliest type of construction utilized in the region and many log barns may have long be lost.⁶⁷ Log barns, moreover, are often sheathed in vertical wood boards today and therefore indistinguishable from timber frame barns on the exterior.

The following section divides bank barns into types based primarily on the combination of symmetrical gables, those with the ridge centered over the entire structure including the forebay, and asymmetrical gables, those with the ridge centered over the foundation, and whether or not the forebay is closed or open.

TYPE A: Asymmetrical gable/open forebay

The asymmetrical gable is reminiscent of saltbox-style roof although in other types of buildings the extended roof plane is placed on the northern side to provide protection from the weather while opening up to warmer southern side. This is not the case for barns in mid-Maryland. The extended roof plane is generally observed to be on the forebay side and therefore facing south, east or southeast. This is a result

⁶² Ibid, 33.

⁶³ Limestone is present in Carroll County in the area running from the north central part of the county to the southwest to just south of New Market in Frederick County (Scharf, 21). Stone barns rare in Carroll County, only five remaining in 1998 ("Farm Holds Place in History," *Baltimore, MD Sun* 20 December 1998, 3B.) There is very little limestone in the Middletown Valley in Frederick County, except for one small bed near the mouth of the Catoctin Creek (Scharf, 25) and so the stone barn is uncommon in this region. Stone barns are also few in the southern Monocacy Valley (Janet L. Davis, Historic Sites Surveyor, Frederick County Planning and Zoning Department, "Kemp-Thomas Farmstead," Historical Trust State Historic Sites Inventory Form F-1-179, May 1993).

⁶⁴ Ibid, 13.

⁶⁵ *The Star Magazine (Washington, D.C.)*, 31 May 1958, clipping on file at the Carroll County Historical Society.

⁶⁶ Short, 42.

⁶⁷ This information is based on approximately 350 barns in Frederick, Washington and Carroll Counties for which the materials and construction method could be determined based on documentation on file at the Maryland Historical Trust and from field visits.

of the forebay framing not being constructed within the main framing structure of the barn. The extended roof is only seen on the ramp side when there are projecting granaries or other outsheds built on that side and these are classified separately (Type G). Barns with the asymmetrical gable configuration are likely to be of an earlier date than those with symmetrical gables.⁶⁸ The roofs of these barns have steeper slopes than those covering barns with symmetrical gables. Likewise, the forebay wall is generally much shorter. The fewest examples of this type overall were found in Frederick County, where the symmetrical roofline appears to be more common.



Figure 10a, Hoff Barn exterior looking east

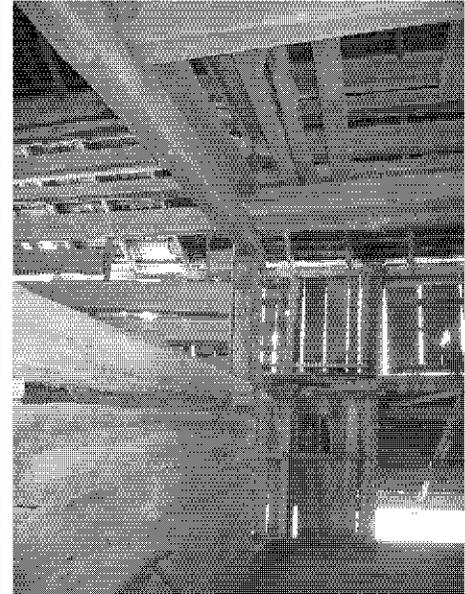


Figure 10b, Hoff Barn interior, threshing floor and mowstead wall

A1: Asymmetrical gable/open forebay (log)

Log barns may represent some of the earliest bank barns in the region. Those that have not been dismantled or burned may be hard to identify from heavy timber frame barns because they often are covered with vertical wood siding, making the two types indistinguishable from the exterior. The barn on the Yoste Greenwood Farm, more commonly known as the Hoff Farm Barn (Fig. 10a), is located on Hoke Road in the vicinity of New Windsor in Carroll County. It is a log barn originally built with an asymmetrical roof and open forebay and constructed around 1785 to 1795. It has central threshing floor with half-squared log hay mows on either side. The barn rests on a rubble stone foundation (Fig. 10b). The logs are joined by V-notching. The mowstead walls have doorways cut into the logs in order to provide access to the hay mows. The forebay faces southeast and is made of frame construction. The roof is supported by a braced queen post truss system with mortised-and-tenoned pegged joints with wood

⁶⁸ Ensminger, 56.

shingles covered by corrugated metal.⁶⁹ There is a continuous shed addition on the northwest ramp side disrupting the asymmetrical form. This barn is scheduled to be dismantled and reconstructed at the Carroll County Farm Museum. Other log examples of this type were documented in the Maryland Historical Trust State Historic Sites Inventory; most of these recorded for the Trust were constructed between 1820 and 1840.⁷⁰ Ensminger claims this type is directly connected to Swiss prototypes and has pinpointed examples in the United States as early as 1730.⁷¹

A2. Asymmetrical gable/open forebay (stone)

Barns of this type have all stone construction in the ramp wall and generally have all stone construction in the gable walls, although several were observed that had frame construction in either one or both gable sections. In some cases this may be original and others it may be a later repair. Washington County has the greatest amount of representative examples of this type. Stone barns with asymmetrical gables and open forebays tend to have been constructed in the period from the last quarter of the eighteenth century until about 1840.

A3. Asymmetrical gable/open forebay (brick)

Brick barns of this type have all brick construction in the ramp and gable walls and a forebay constructed of timber framing. The masonry foundation is usually stone, although the lower level of the forebay may be brick. Brick barns of this type were typically constructed during the period between 1810 and 1860.

The Brown's Farm (Fig. 11) in Burkittsville in Frederick County was built around 1780 to 1800.⁷² It is unique in its use of three materials: stone in the gable ends and ramp wall, brick in the gable sections, and timber frame in the forebay. It is considered in this section due to the use of masonry with the asymmetrical gable/open forebay configuration. The walls are made of rubble and fieldstones with quoins

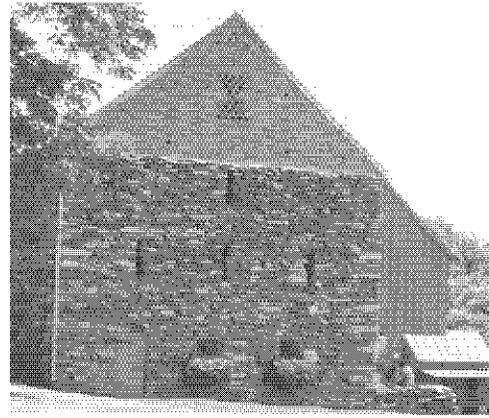


Figure 11, Browns Farm, Burkittsville, Frederick County
(photo: Virginia Price)

⁶⁹ Kenneth Short, Carroll County Planning Department, "Yoste Greenwood Farm (Hoff Family Farm)," Maryland Historical Trust State Historic Sites Inventory Form CARR-1390, 1 September 1994.

⁷⁰ Jacob Stermer Farm (Springstede, Nelson Farm) built ca.1830-40 (MHT CARR-1299), Warehime Family Farm (Galloping Goose Farm) built ca. 1820 (MHT CARR-1396) and the Aquilla Magee Tenant Farm built ca. 1840 (CARR-1397)

⁷¹Ensminger, 57.

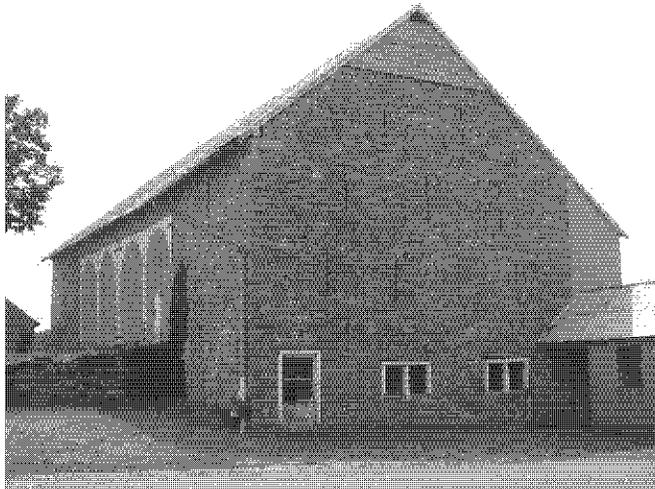
⁷² "Historic Barns of the Middletown Valley," Frederick County Landmarks Foundation Tour Guide, June 2007.

with four vertical slits for ventilation. There are two windows in the lower level of the gable ends as well as a door, which would open into the alley at the back of the stalls. The gable is laid in 6:1 common bond, that is to say with every seventh course a row of headers, and centered within the gable is a wheat sheaf or hourglass pattern. High in the gable is a small diamond and evenly spaced in three rows are spaces the size of a single header.

A4. Asymmetrical gable/open forebay (timber)

Heavy timber provided the second most popular construction method (and material) for this type of barn, also largely seen Washington County and mainly built in the period from 1840 to 1900. An early example is the Newcomer Barn on the grounds of the Antietam National Battlefield in Sharpsburg which was built as early as 1790.

A1. Asymmetrical gable/open forebay (stone)

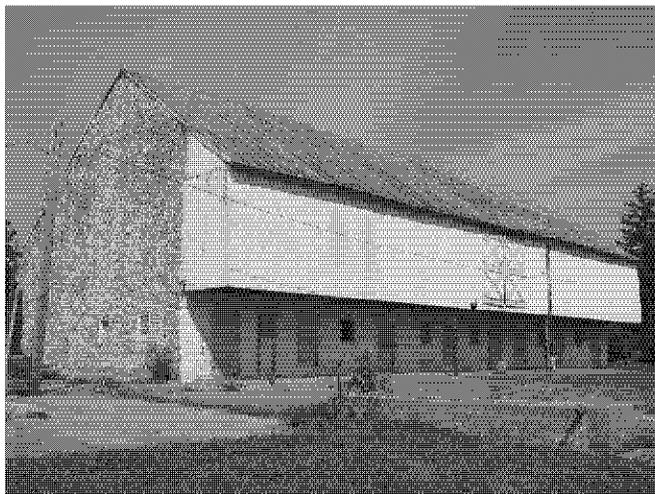


(i) BARKDOLL FARM BARN

COUNTY: Washington
LOCATION: Manor Church Rd and Wheeler Rd
DATE: 1800-25

NOTES: This barn has a built up ramp reinforced with stone retaining walls. It is constructed of random laid stone with quoins. There is partial frame construction covered in horizontal boards in the northwest gable section and full frame construction in the southeast gable section. There is vertical slit loophole ventilation in all of the stone walls. The forebay faces southwest.

SOURCE: Paula Stoner Dickey, Washington County Historic Sites Survey, "Barkdoll Farm," Maryland Historical Trust State Historic Sites Inventory Form WA-II-0191, March 1978.

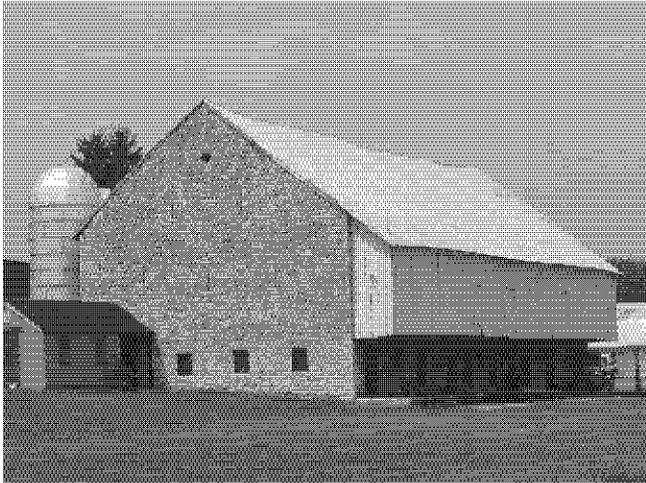


(ii) NALLIN FARM BARN

COUNTY: Frederick
LOCATION: Opossumtown Pike/Fort Detrick
DATE: ca.1795

NOTES: This barn measures approximately 44 x 100 feet. It is constructed from field stones and random ashlar with quoins and raised pointing. The forebay faces east and cantilevers about 8 feet over the fourteen bays on the lower level. There is frame construction in the gable on the north elevation and in the granary addition on the south side of the ramp. There are three threshing floors on the upper level with a hay mow on either side.

SOURCE: Deborah K. Cannan and Martha R. Williams, R. Christopher Goodwin Associates, "Nallin Farm Spring House & Bank Barn," National Register of Historic Places Registration Form



(iii) FUNK-ARTZ FARM BARN

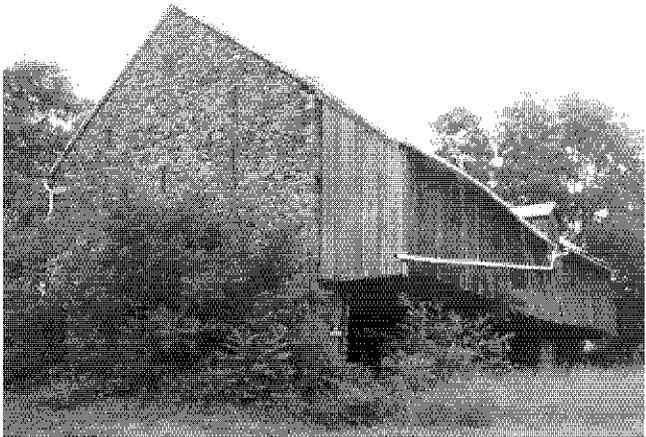
COUNTY: Washington

LOCATION: north side of Rench Road

DATE: 1775-1800

NOTES: The forebay faces east and is sheathed in vertical boards. The stone walls are made of rubble stone with quoins. Ventilation is provided by a combination of louvers, loopholes, and a round opening in the gable. A concrete block addition projects from the southwest corner and a silo stands on the south side of the ramp.

SOURCE: Paula Stoner Dickey, "Glendale Farm (Funk-Artz Farm)," Maryland Historical Trust Historic Sites Inventory Form WA-I-0404, December 1977.



(iv) HERRING FARM (SURE BIND SURE FIND)

COUNTY: Frederick

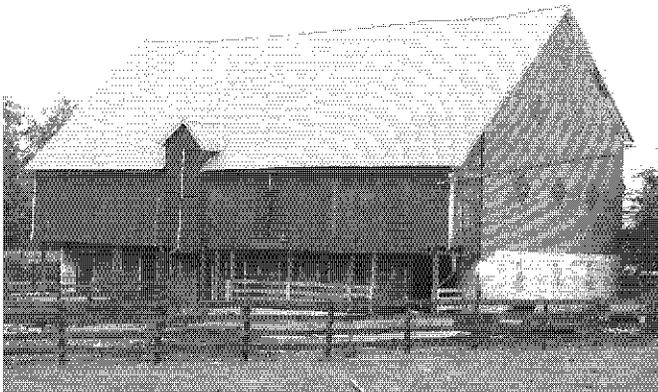
LOCATION: Green Valley Road (MD 75) at Beaver Dam Road

DATE: 1800-25

NOTES: This barn is constructed of random rubble stone with brick-lined loophole ventilators. The forebay faces south and consists of frame sheathed in vertical bead boards with six split arch framed louvers. The off-center dormer is likely a nineteenth-century addition to accommodate a hay track.

SOURCE: Janet L. Davis, Frederick County Planning and Zoning Department, "Herring Farmstead (Sure Bind Sure Find)," Maryland Historical Trust State Historic Sites Inventory Form F-8-117, June 1991.

A2. Asymmetrical gable/open forebay (brick)



(i) MAPLEVILLE ROAD BRICK BARN

COUNTY: Washington

LOCATION: Mapleville Road at Spur Road

DATE: ca.1830-60

NOTES: Brick is laid in 5:1 common bond on a rubble limestone foundation with quoins except along forebay side, which is made of brick. There are three rectangular framed wood louvers in gable end foundation. Brick patterns in the gable end are three rows of diamonds (3, 2, 1 rising from foundation to gable). The lower level forebay has alternating doors and louvers (5) with a pair of doors near the center. The forebay faces west and has a dormer placed slightly to the north of center. The dormer was likely a later addition to the barn.



(ii) DENNIS FARM

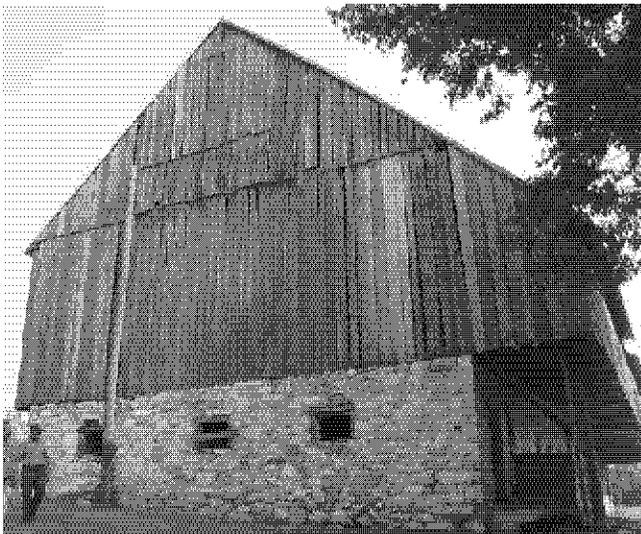
COUNTY: Washington

LOCATION: 14254 National Pike

DATE: ca. 1830-60

NOTES: The foundation was not visible from street, however, the walls are brick masonry laid in 5:1 American or common bond, meaning every sixth course is a row of headers. Patterned brick work ventilation includes (from gable to foundation): a unfolding lily, three diamonds, five small inverted triangles, four diamonds, three hour glasses with a small triangle on each end, and four diamonds. There are also diamond patterns in the ramp wall. The forebay faces east. The outshed on north side of ramp wall appears to be a later addition. Three decorative metal ventilators sit on the ridge of the flat seam metal roof.

A3. Asymmetrical gable/open forebay (timber)



(i) NEWCOMER FARM BARN

COUNTY: Washington

LOCATION: Antietam National Battlefield

DATE: 1820-30, maybe as early as 1790

NOTES: The late nineteenth-century dormer was added to accommodate threshing. The forebay faces east. The barn measures 50 x 95 feet, and is made from fieldstone laid in a random rubble pattern. There are five bents with rafters and purlins, vertical sheathing with an overlap on the gable end at eave height, three wood frames with louvers in foundation of gable ends, eight Dutch doors, and six wood framed louvers in the foundation under the forebay.

SOURCE: Newcomer Barn Antietam National Battlefield Historic Structures Report, prepared by GWWO, Inc/Architects, 20 May 2004; Keven Walker, Historian, Cultural Resource Specialist Antietam National Battlefield



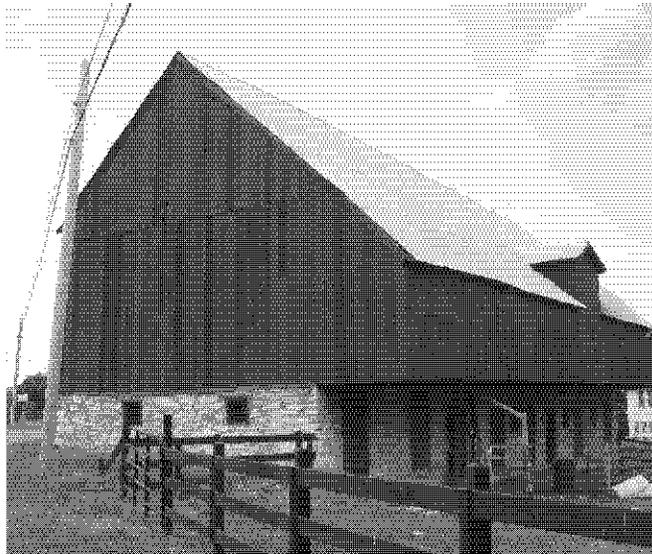
(ii) DIAMONDS BLUFF FARM

COUNTY: Carroll

LOCATION: 4480 Priestland Road

DATE: ca.1820-50

NOTES: The lower level has been significantly altered, but it appears to have once been an open forebay facing southeast. Foundation consists of rubble stone with quoins. Siding is vertical wood boards with an overlapping layer in the gable end as well as two small rectangular cutouts covered and framed with a X. There are several newer sections of siding in the forebay wall as well as a dormer addition probably dating to the late nineteenth or early twentieth century. The roof is a corrugated metal that has deteriorated to reveal wood nailers. The property now operates as a horse farm and training center.



(iii) MARBLE QUARRY ROAD BARN

COUNTY: Washington

LOCATION: 20112 Marble Quarry Road

DATE: ca.1820-50

NOTES: Constructed on a limestone foundation, the forebay of this barn faces east and has a dormer addition. Siding consists of vertical wood boards and overlaps just under the eave in the gable end. The barn was extended at some point on the south end as indicated by a joint in the foundation. The lower level has a pattern of alternating Dutch doors (3) and wood framed louvers (2) mirrored around what would have originally been the center. There are two Dutch doors in under the forebay in the extended section and two framed wood louvers in the foundation of the gable end.

TYPE B: Asymmetrical gable/closed forebay

B1: Asymmetrical gable/closed forebay (stone)

In barns of this type the stone gable walls extend to the edge of the forebay wall, which is made of frame construction. In some cases the gable section may also be framed. The upper portion of the gable wall and the forebay are of frame construction. Overall, this type had but few examples. These were generally built during the first half of the nineteenth century.

B2: Asymmetrical gable/closed forebay (brick)

Brick barns with asymmetrical gables and closed forebays were constructed from the beginning of the nineteenth century until about 1860. Examples can be seen with both full gable walls constructed of brick masonry or brick with timber framing in the gable section.

B1: ASYMMETRICAL GABLE/CLOSED FOREBAY (STONE)



(i) FRANCIS MANTZ FARMSTEAD

COUNTY: Frederick

LOCATION: 3909 Urbana Pike

DATE: 1820-25

NOTES: This is the only stone barn in the Urbana region of Frederick County. The east gable wall and ramp wall are constructed of rubble limestone and the west gable is stone with timber framing in the gable, which may be a later repair. The forebay faces south and is sheathed in vertical boards.

SOURCE: Janet L. Davis, Historic Sites Surveyor, Frederick County Planning and Zoning Department, "Francis Mantz Farmstead (Wight Farm)," Maryland Historical Trust State Historic Sites Inventory Form F-7-059, November 1993.



(ii) STONE BARN

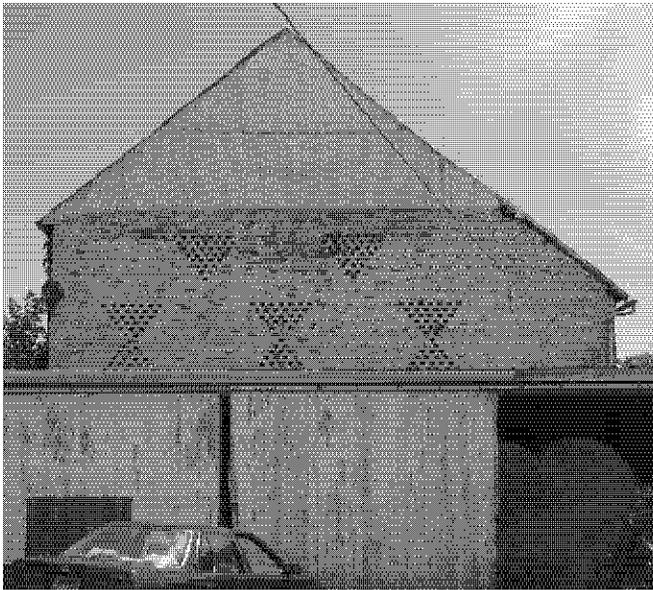
COUNTY: Carroll

LOCATION: Green Valley Road (MD 75) west of Union Bridge

DATE: ca. 1800-25

NOTES: Similar to the Francis Mantz stone barn (above) but this one has an arched doorway in the lower level of each gable wall opening to the area under the forebay. This barn is constructed of rubble stone with finely dressed quoins. The forebay faces southeast, has vertical wood board sheathing, and six square wood framed louvers. The arched date stone in gable section indicates barn may be from late eighteenth or early nineteenth century (Reed, Tillers of the Soil, 156)

B2: ASYMMETRICAL GABLE/CLOSED FOREBAY (BRICK)



(i) SMITH-REMSBURG BARN

COUNTY: Frederick
LOCATION: 7604 Marker Road
DATE: 1830-50

NOTES: The foundation is stone while the primary construction material is brick laid in 5:1 common bond. There are three wheat sheaf ventilators evenly spaced above, between which are two triangle ventilators. Two wheat sheaf patterns and one triangle follow a similar arrangement on either side of the ramp in the gable ends. Frame construction and wood vertical boards make up the gable sections.

SOURCE: Photo by Virginia Price. Janet L. Davis, Historic Sites Surveyor, Frederick County Planning and Zoning Department, "Smith-Remsburg Farmstead 'Neighbors Content,'" Maryland Historical Trust State Historic Sites Inventory Form F-4-089, June 1992.

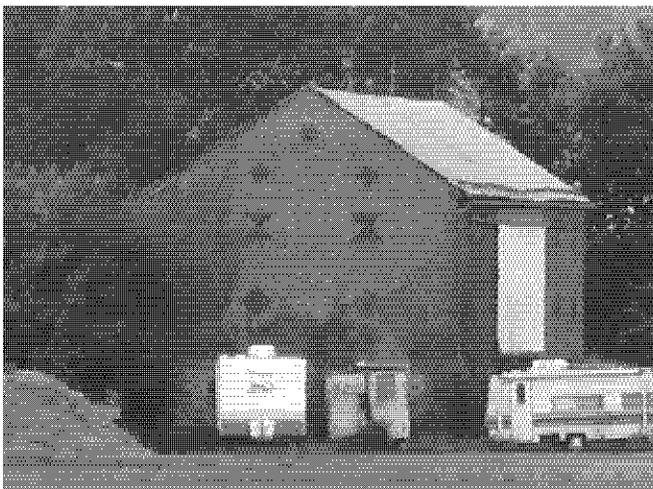


(ii) SCHWEIGART BARN

COUNTY: Carroll
LOCATION: Bell Road
DATE: 1813

NOTES: Built for James Schweigart, six generations of Schweigarts lived here at which time it was known as Four Winds. The gable ends have three wheat sheaf ventilators and one on both sides of the doors on the ramp wall. The gables are made of timber construction and sheathed with vertical wood boards. The forebay faces west.

SOURCE: James Kyler, "Brick End Barns of Carroll County Photo Album," Historical Society of Carroll County.



(iii) SCHLEY-RAMSBURG FARMSTEAD

COUNTY: Frederick
LOCATION: 11614 Hessong Bridge Road
DATE: ca.1840-50

NOTES: The barn has a fieldstone foundation with an entirely brick masonry upper structure. The bricks are laid in 5:1 common bond. Brick patterns include three small diamonds in the gable section; below those is a row of two wheat sheaves/hour glasses and a row of two larger diamonds. The forebay faces south. The roof is standing seam metal over wood shingles.

SOURCE: Janet L. Davis, Frederick County Planning and Zoning Department, "Schley-Ramsburg Farmstead," Maryland Historic Trust State Historic Sites Inventory Form F-3-082, September 1992.

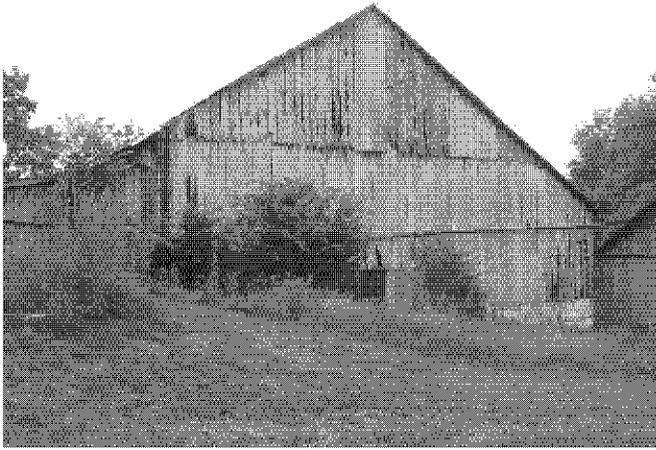


Figure 12a, Joseph Parks Barn, west elevation



Figure 12b, View of closed forebay, looking west

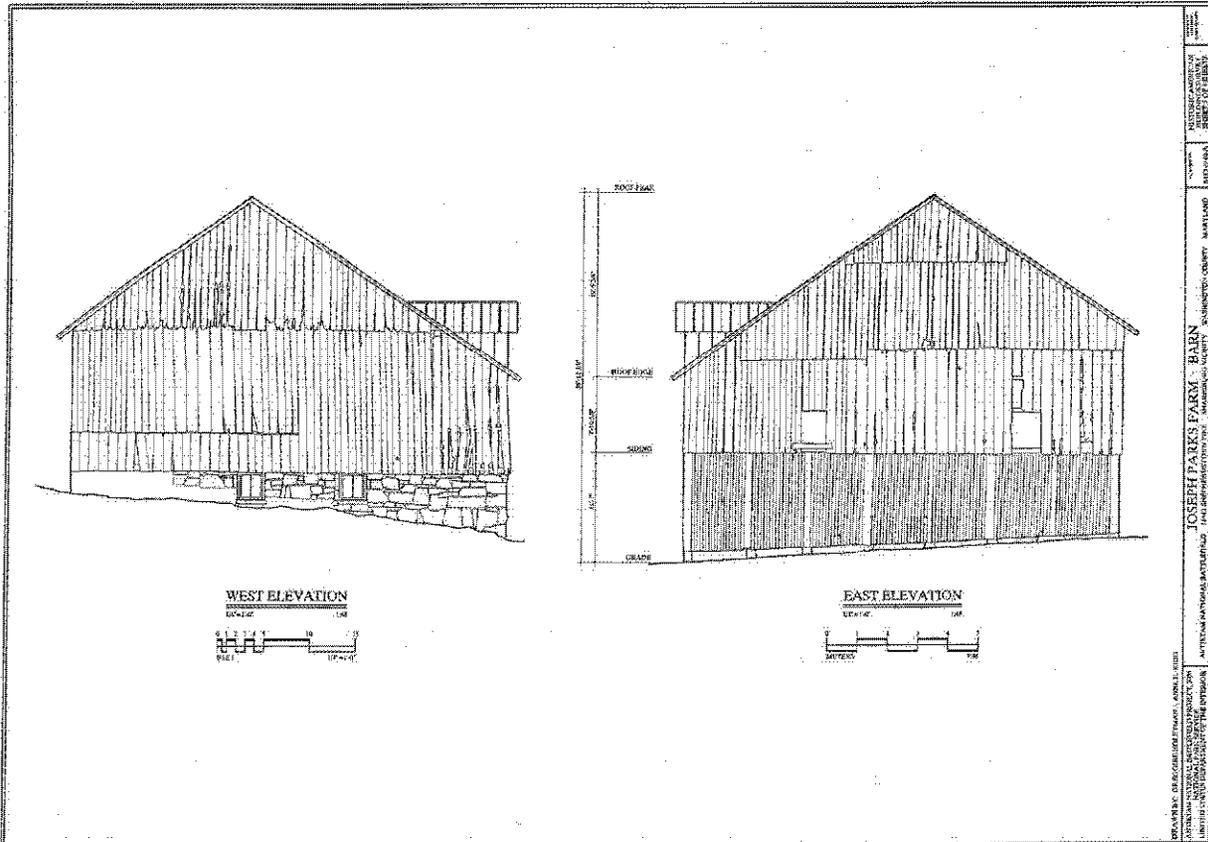


Figure 12c, Joseph Parks Farm, east and west elevations, Antietam National Battlefield, Washington County (drawn by Anne E. Kidd, National Park Service Historic American Buildings Survey MD-940-A, 2005)

B3: Asymmetrical gable/closed forebay (timber)

There are few examples of this subtype. Shown here is the Joseph Parks Barn at the Antietam National Battlefield in Washington County built around 1820 (Fig. 12a, c). The forebay faces south and is half closed on west side (Fig. 12b). The foundation is a whitewashed rubble limestone foundation. The entire structure is sheathed in several overlapping layers of vertical wood boards. The framing is a canted queen post with tie and cross beams which divides the interior space into a central threshing floor flanked by two hay mows with a granary built into southeast corner. Its overall dimensions, not including the late nineteenth or early twentieth century wagon shed addition on the east side, are approximately 40 x 60 feet.⁷³

TYPE C: Symmetrical gable/closed forebay

Type A has a symmetrical roofline on the gable ends with the foundation of the same extending on either both or one end to the edge of the forebay wall.⁷⁴ This not only served to support the forebay but to provide more protection for the area immediately outside the entrance to the barn on the lower level. The extended portion of the foundation was in several cases observed with an arched doorway opening under the forebay to provide easier access to the lower level of the barn. This type is represented by a variety of materials and construction methods including heavy timber frame, and stone and brick masonry.

C1. Symmetrical gable/closed forebay (timber)

Subtype A1 is represented by all heavy timber-frame, mortise-and-tenon construction, sheathed in wood siding on a stone foundation. Barns of this sub-type were largely found to have been constructed in the second half of the nineteenth century with but some date to as early as 1810 and as late as 1910. A high concentration of this sub-type can be seen in the vicinity of Middletown in Frederick County.

C2. Symmetrical gable/closed forebay (stone)

Type A2 is similar to A1 except the ramp and gable walls are built of stone masonry with frame construction in the forebay wall. Due to the fact that the entire gable end is constructed of masonry, the forebay cannot be open on either end. There are only a few examples of this type overall. The stone barn on Tommytown Road in the vicinity of Sharpsburg in Washington County (Fig. A2) was erected in the first quarter of the nineteenth century. Also of this type, the Robertson Farm stone barn in the vicinity of Spring Mill in Carroll County was built in the late 1700s.⁷⁵

⁷³ Historic American Buildings Survey, Joseph Parks Farm, MD-940-A, 2005.

⁷⁴ Allen G. Noble and Gayle A. Seymour refer to barns on which the forebay is supported as "Pomeranian barns" in "Distribution of Barn Types in Northeastern United States," *Geographical Review* 72, no. 2 (April 1982): 159.

⁷⁵ James Kyler, "Brick End Barns of Carroll County Photo Album," Historical Society of Carroll County.

C3. Symmetrical gable/closed forebay (brick)

This type is similar to A2 with all-brick construction, except for the forebay wall which is made of frame construction. Barns of this type date from as early as 1800 to as late as 1860, and have the most representative examples in the northern half of Carroll County.

C1. SYMMETRICAL GABLE/CLOSED FOREBAY (TIMBER)



(i) CHARLES MILLARD FARM BARN

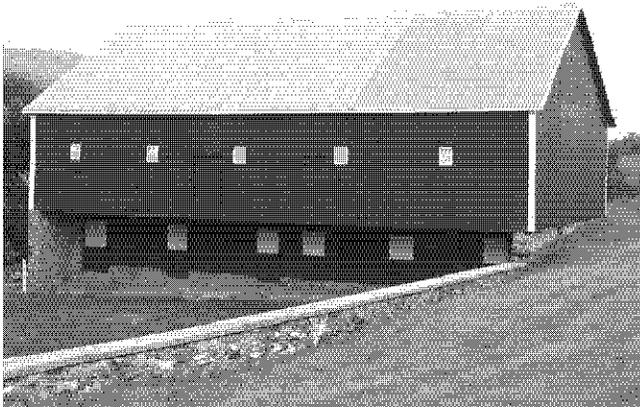
COUNTY: Frederick

LOCATION: 6912 Michaels Mill Road

DATE: ca.1890

NOTES: The forebay faces east and overhangs approximately six feet. It is closed by the random course limestone foundation on the lower level on the north side and a door on the south. The interior is divided into five bays with hewn mortise-and-tenon timber frame bents. The exterior is sheathed with vertical tongue-and-groove siding with arched louvered ventilators.

SOURCE: Melhuish and Armstrong.



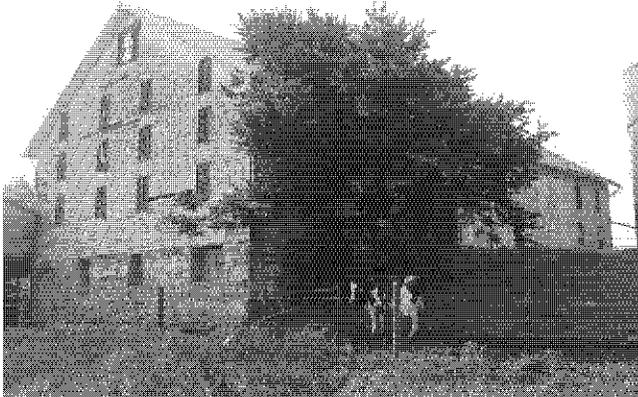
(ii) YARROWSBURG ROAD BARN

COUNTY: Washington

LOCATION: Intersection of Rohrersville Road (MD 67) and Yarrowsburg Road

DATE: 1850-75

NOTES: The forebay on this barn faces south and is banked on the north as well as the east, which provides for a sheltered barnyard and is closed on both ends. There are five rectangular wood louvers in the forebay wall. The entire structure is sheathed in vertical wood boards except for the lower level on the forebay side, which has horizontal boards and six doors arranged to indicate four stalls and two feeding aisles on the interior.



(iii) SHRINER-LEASE FARM BARN

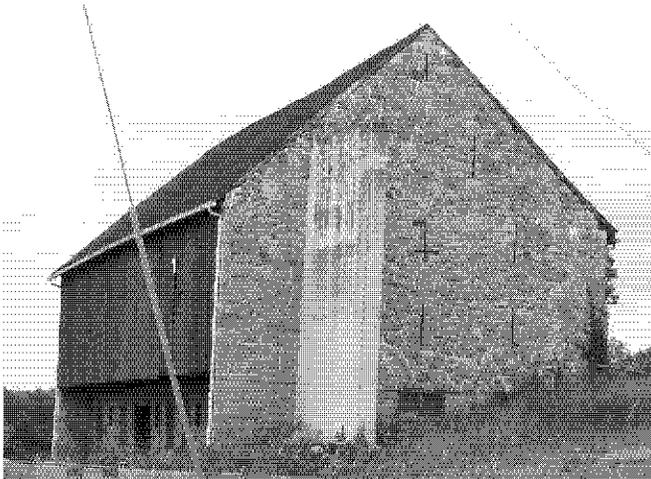
COUNTY: Carroll

LOCATION: 4445 Ladiesburg Road

DATE: ca.1880

NOTES: The forebay on this barn faces east. The foundation is constructed of random course ashlar and fieldstone with a brick arch opening in north elevation now filled in with concrete block. Sheathing is horizontal German siding with three rows of four split louvers in the gable ends. There is a six-over-six light sash window placed high in the gable.

C2. SYMMETRICAL GABLE/CLOSED FOREBAY (STONE)



STONE FARMSTEAD

COUNTY: Washington

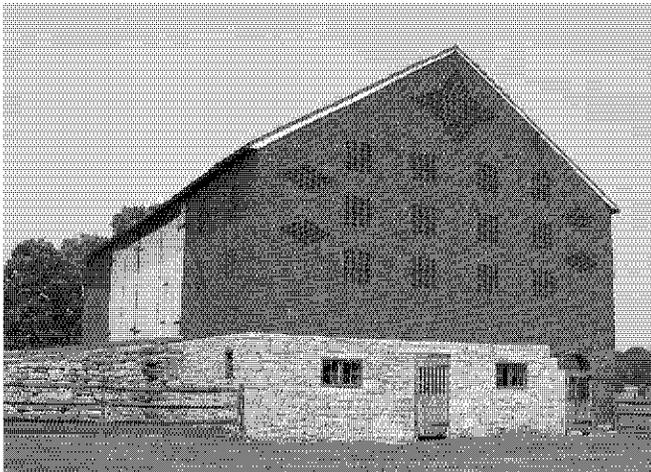
LOCATION: 6811 Tommytown Road

DATE: 1800-25

NOTES: This stone barn is constructed of rubble native limestone with quoins. The forebay faces south and is sheathed in vertical boards. Four rows of loophole ventilators are built into the gable ends (3, 2 and 1 rising from the foundation to the gable). The concrete wall is an addition since 1976.

SOURCE: Paula Stoner, Preservation Associates, "Stone Farmstead," Maryland Historical Trust Inventory Survey Form WA-II-0404, June 1978.

C3. SYMMETRICAL GABLE/CLOSED FOREBAY (BRICK)



(i) HARRIS FARM

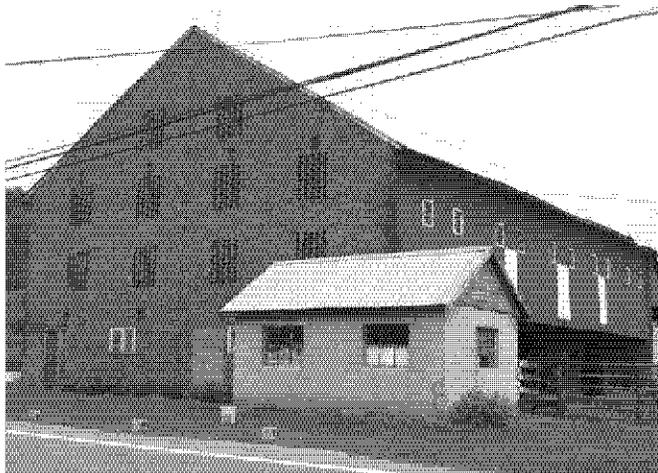
COUNTY: Frederick

LOCATION: 9224 Devilbiss Bridge Rd

DATE: 1855

NOTES: The barn measures 40 x 76 feet and is made of brick construction (common bond) over a high limestone foundation. It has a built up ramp with a dry-kid stone retaining wall and a forebay on the east façade that overhangs seven feet. The south façade (gable side seen here) is more finely detailed than the north façade since it faces main road.

SOURCE: National Register of Historic Places Registration Form, F-8-133, prepared by Maryland Historical Trust Staff, October 1992.



(iii) CALVIN HARMAN BARN

COUNTY: Carroll

LOCATION: 4334 Littlestown Pike

DATE: 1843

NOTES: The forebay faces southeast and the lower level is punctuated on both ends with arched openings. The bricks are laid in 5:1 common bond and accommodate rectangular or bushel measure ventilators. Star-shaped iron ties are visible along the gable end at the level of the second floor and at the height of the eave. Vertical boards cover the framed forebay wall with five pairs of two framed louvers.

SOURCE: James Kyler, "Brick End Barns of Carroll County Photo Album," Historical Society of Carroll County.

TYPE D: Symmetrical gable/arcaded forebay

This type is unique within the region and only one example of this type in has been documented by James Kyler in his "Brick End Barns of Carroll County Photo Album," in the collections of the Historical Society of Carroll County and is not believed to be extant at the time of this report. The Truman Stem (formerly the Charles Leppo Barn) on Arter's Mill Road in Carroll County has a symmetrical roofline on the gable ends and is constructed entirely of brick including the forebay wall, which extends all the way to the ground. At ground level this wall is punctuated with six round arch openings creating an open sheltered space. Diamond and wheat sheaf/hourglass pattern ventilation is found in all four walls (Fig. 13). Ensminger identifies this type in his study as well although all his examples, nine in Pennsylvania, one in Delaware and two in New Jersey, are constructed of stone of which at least a few were built in the first two decades of the nineteenth century.⁷⁶ Since brick barn construction generally came later than stone construction, this barn was likely built in the middle third of the nineteenth-century in the same period as other brick barns with symmetrical gables and closed forebays.

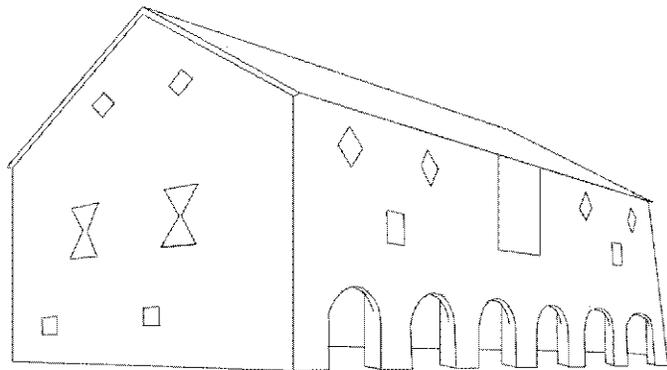


Figure 13, Stem-Leppo Barn; sketch based on photograph in James Kyler's, "Brick-End Barns of Carroll County."

⁷⁶ Ensminger, 84.

TYPE E: Symmetrical gable with extended forebay

The Haines Barn (Fig. 14a, b) at 110 Stem Road in Carroll County is also unusual within the study area. Its lower gable walls and ramp wall are constructed of brick laid in common bond with fifth course headers. Although a historic photograph shows that the gable sections, forebay, and granary on the along the ramp were once sheathed in vertical wood boards, they are now covered with vinyl sheets. The forebay, which faces southeast, extends almost half the depth the main brick structure of the barn and is supported on five slightly tapered stone piers. The brick gable ends have hour glass/wheat sheaf ventilation patterns. Two concrete silos stand on the northwest side of the barn, one on either side of the ramp, and a shed or granary addition extends from the main structure on the west side of the ramp.



Figure 14a, Haines Barn, forebay (SE view)

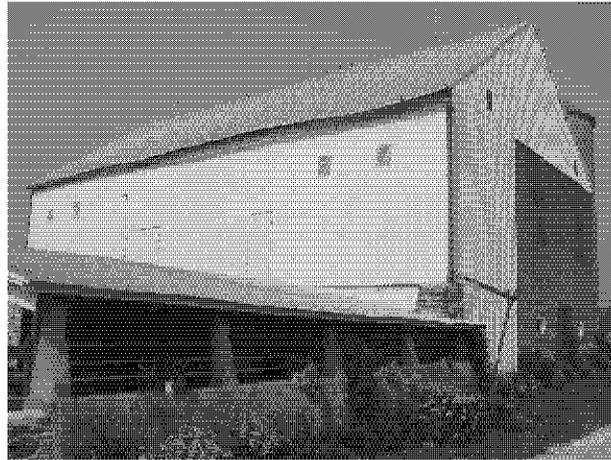
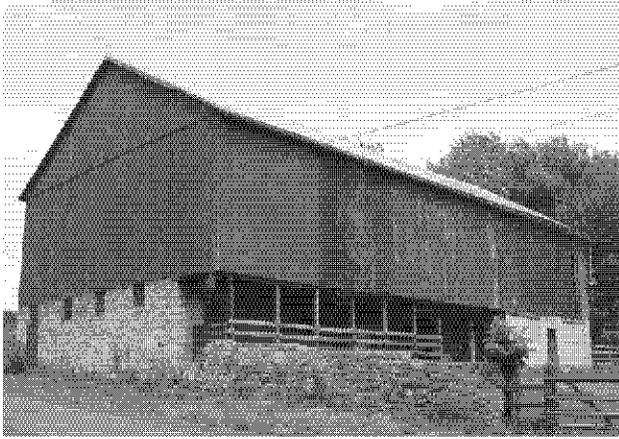


Figure 14b, Haines Barn, southeast and northeast elevations

TYPE F: Symmetrical gable/open forebay

Barns with symmetrical gable ends and fully cantilevered forebays are generally constructed of all heavy timber frame construction, with at least one known example of log construction. The majority of barns of this type were constructed in the second half of the nineteenth century with examples dating to as early as 1810 and as late as 1930. Many of the barns of this type built in the early twentieth century were replacing earlier barns of the same type that had been damaged or destroyed by fire. The greatest concentration of barns of this type was observed in the vicinity of Manchester and Westminster in Carroll County followed by Myersville and Middletown in Frederick County. Posts were sometimes later added to provide additional support for the forebay. The fewest examples of this type were seen in Washington County where the asymmetrical roofline is more common.

F1: SYMMETRICAL GABLE/OPEN FOREBAY (LOG)



ANGUS MACDONALD BARN

COUNTY: Washington

LOCATION: Shepherdstown Pike at Canal Road

DATE: 1820

NOTES: The barn is made of squared log construction with random width circular sawn vertical board siding with an overlap in the gable. The foundation is coursed limestone with quoins. The forebay faces south and has a modern concrete block enclosure on the east end.

SOURCE: Alice Crampton, Engineering-Science, Inc., "MacDonald Barn," Maryland Historical Trust State Historic Sites Inventory Form WA-II-1109, 3 June 1994.

F2: SYMMETRICAL GABLE/OPEN FOREBAY (TIMBER)



(i) CLARA HARNER FARM BARN

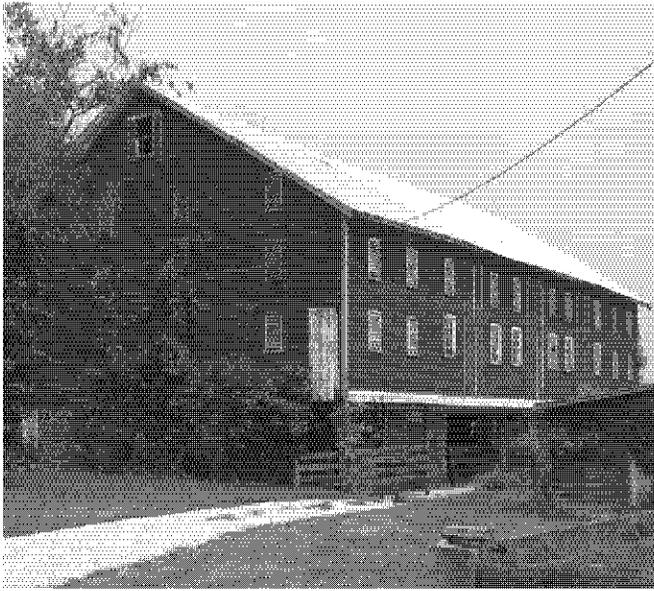
COUNTY: Frederick

LOCATION: 14702 Sixes Road

DATE: 1877

NOTES: The barn has a stone foundation with quoins and wood framed louvers. The barn is sheathed in vertical wood boards and also has framed wood louvers. Under the eaves on all sides, slots are cut into the wood boards to provide additional ventilation. The bargeboard on the gable ends has a decorative element.

SOURCE: Mary Kendall Shipe, Historic Sites Surveyor, Frederick County Planning and Zoning Department, "Clara Harner Farm," Maryland Historical Trust State Historic Sites Inventory Form F-6-074, June 1991.



(ii) PETER ERB FARM BARN

COUNTY: Carroll

LOCATION: 2613 Stone Road

DATE: 1897

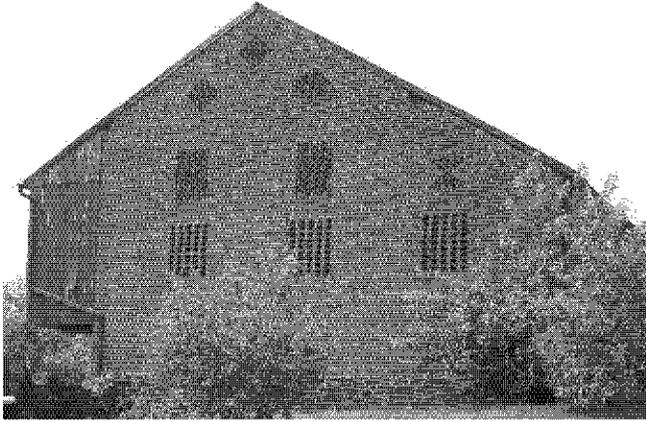
NOTES: The foundation of this barn is made of coursed rubble and squared stone with quoins. The upper structure is sheathed with German siding. The gable end has three rows of four rectangular framed wood louvers with a shallow arch and a six-over-six light window flanked by louvers set high in the gable. The forebay faces southeast and is divided into four sections by three sets of full-length hinge doors. The two outer sections have a row of two louvers and a six-over-six light window below, and a row of three louvers above, while the inside two sections have two six-over-six light windows below and a row of two louvers above. There are two threshing floors with one mow on the northeast and two on the southwest.

SOURCE: Kenneth M. Short, Carroll County Planning Department, "Peter Erb Farm (and Carriage House)," Maryland Historical Trust State Historic Sites Inventory Form CARR-98, 12 November 1993.

TYPE G: Rear extension

This type includes all barns with asymmetrical gables with the elongated roof plane on the ramp side resulting from the extension of the barn beyond the main structure to include outsheds which in many cases served as granaries. These extensions may be on either one or both sides of the ramp or may run continuously along the entire length of the ramp wall. Many barns had outsheds added at a later time, and the end result is similar. For the sake of this report, only barns with rear extensions believed to be original to the barn's design are included in this section. Barns with rear extensions may be found throughout the entire period studied and were constructed of brick masonry with an open forebay (i), brick masonry with a closed forebay (ii), timber with (half) closed forebay (iii), timber with an open forebay (iv), stone masonry with closed forebay (v) as well as stone masonry with an open forebay (vi).

G. Rear Extension



(i) MEYERHOFFER BARN

COUNTY: Frederick

LOCATION: 12355 Harney Rd

DATE: ca. 1845

NOTES: Set on a foundation of coursed stone, the barn is constructed of bricks laid in 4:1 common bond. There are projecting granaries on both sides of the ramp. The forebay faces south and is sheathed in vertical boards.

SOURCE: Mary Kendall Shipe, Historic Sites Surveyor, Frederick County Planning and Zoning Department, "Meyerhoffer Farm," Maryland Historical Trust State Historic Sites Inventory Form F-6-080, June 1991.



(ii) SHAFER FARM

COUNTY: Washington

LOCATION: Downsville Pike (MD 632) south of junction with Interstate 70

DATE: 1851

NOTES: A raised random course limestone foundation extends to the edge of the forebay, which is cantilevered six feet and sheathed in vertical board siding. There are three decorative metal ventilators on the ridge and two projecting brick granaries on either side of the ramp. Brick ventilation patterns include the unfolding lily, a row of diamonds, a row of wheat sheaves, a row of wine glasses and followed by another row of diamonds.

SOURCE: W. Patrick Giglio, R. Christopher Goodwin and Associates, Paula Stoner Dickey, "Shafer Farm," Maryland Historical Trust State Historic Sites Inventory Form WA-I-264, 23 February 1996.



(iii) Kretsinger Farm

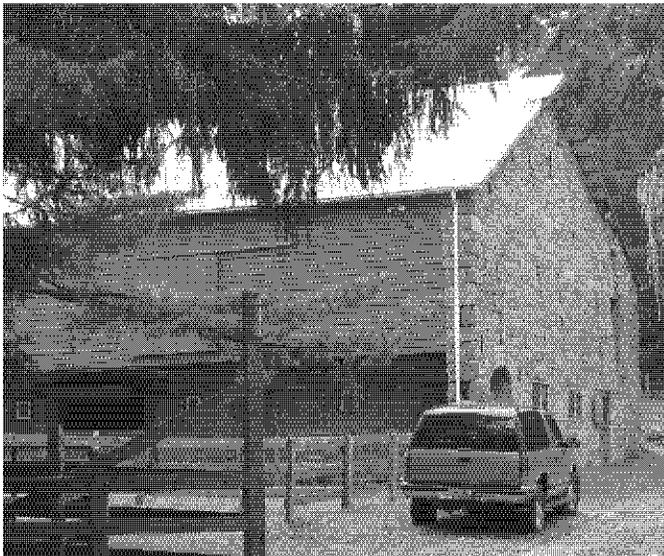
COUNTY: Washington

LOCATION: 13654 Kretsinger Road

DATE: ca.1900

NOTES: This barn has a rubble stone foundation with a posted forebay facing southwest. Vertical board siding covers all of barn except the granaries projecting on the northeast side, on either side of the ramp, which are constructed of brick. Siding overlaps at the eave on the gable ends. There are framed wood louvers in the gable ends. The roof is asymmetrical with extended roof on the ramp side due to granaries.

SOURCE: Paula Stoner, Preservation Associates, "Kretsinger Farm," Maryland Historical Trust State Historic Sites Inventory Form WA-IV-049, July 1978.



(iv) JACOB SHAFFER STONE BARN

COUNTY: Carroll

LOCATION: 4758 Schalk Road No. 1

DATE: ca. 1850

NOTES: The barn is constructed of rubble stone with quoins. The forebay faces east and is sheathed with German siding on the upper level. The forebay is closed on both ends with an arched doorway on the north end providing access to the barnyard. Vertical slit loopholes provide ventilation in the stone walls as well as a circular opening high in the gable section. There are two projecting stone granaries on the west elevation.

SOURCE: Kenneth M. Short, Carroll County Planning Department, "Jacob Shaffer Farm," National Register of Historic Places Registration Form Survey No. CARR-1148, February 1998.



(v) NECESSITY

COUNTY: Washington

LOCATION: Watery Lane

DATE: 1825-30

NOTES: This barn is constructed of stone masonry, including the rear extension, except for the gable and forebay. The latter elements are made from timber frame. The stone walls have wood framed louvers. There is a small window or louver (indistinguishable from road) high in the gable. The forebay is open and faces southeast. The dormer is likely a later addition.

SOURCE: Paula Stoner, Preservation Associates, "Necessity," Maryland Historical Trust State Historic Sites Inventory Form WA-IV-010, July 1978.

CLASS II: Ground Barns

The class of ground barn refers to any type that is built on level ground, not including the modern dairy barn. Within this category there are several different types. Ground barns are often smaller structures relative to the average bank barns and are less common within the mid-Maryland region making it harder to develop broad patterns as was done for the bank barn.

TYPE H: Single Unit Barn

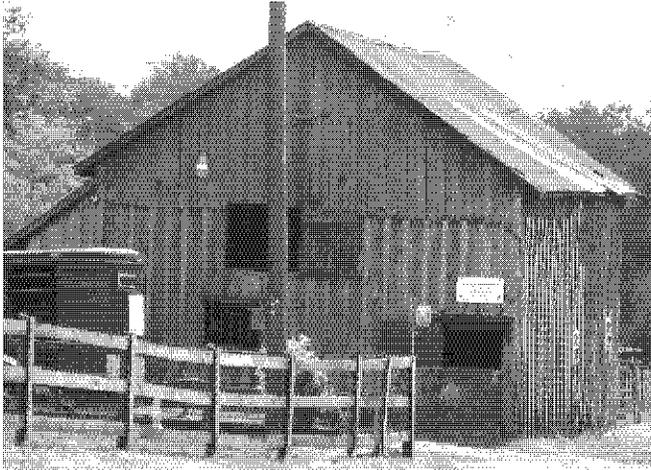
The single unit (also called single pen or single crib) barn type was often constructed of log. It represents some of the earliest agricultural structures in the region that were built during the settlement period when outbuildings were relatively scarce and rudimentary.⁷⁷ The single unit barn is rectangular or square in plan with a gable roof. The interior is divided into halves for the stabling of draft animals with a hayloft above. A small door in either stable provides access to the interior. According to Glassie and his study of the Pennsylvania barn, the single unit barn is not common in central Maryland but is seen more frequently in western Maryland along the Virginia and West Virginia borders. Although the form and arrangement were not documented, this type may be the same as those described in the *List of Tenements on His Lordship's Manor of Conococheague* in 1767. Located in Washington County, all barns described were made from log construction, typically single unit barns. They ranged in size from approximately 800 to 1200 square feet.⁷⁸ This type was suited to the scale of agriculture during this period as draft animals like oxen and cattle could survive on hay stacked outdoors, eliminating the need for much storage space.⁷⁹ Single unit barns can be with (H1) or without a forebay. If the barn has a forebay it may, like the bank barn, be asymmetrical (H2) or symmetrical (H3).

⁷⁷ McMurry and Garrison, 62; John Michael Vlach, *Barns* (NY: W.W. Norton & Company, 2003): 83.

⁷⁸ Reed, 155.

⁷⁹ McMurry and Garrison, 64.

H1. SINGLE UNIT BARN

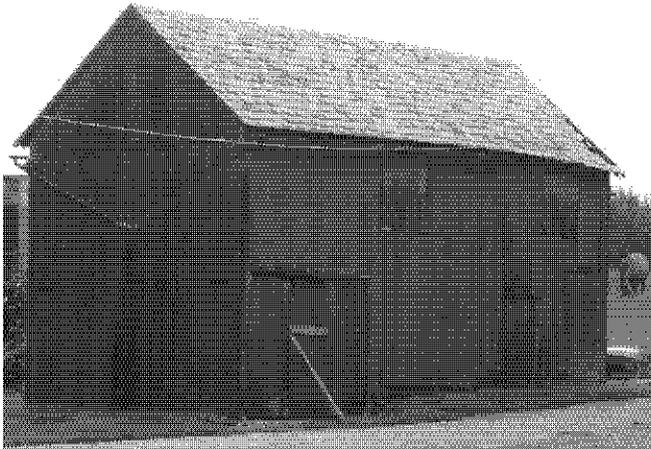


(i) HESSONG BRIDGE ROAD BARN

COUNTY: Frederick

LOCATION: Hessong Bridge Rd at Layman Rd

NOTES: This single unit barn sits just south of and adjacent to the Eicholtz Log Barn (Fig. X). Its ridge runs northeast-southwest. There is a shed addition on the southeast side. The structure is sheathed in board-and-batten siding except for the flush vertical boards in the gable with the characteristic angle at the outer edge. The northeast façade has a single Dutch door providing access to the stables, which open onto the enclosed barnyard on the opposite. There is a hayloft door in the upper level.



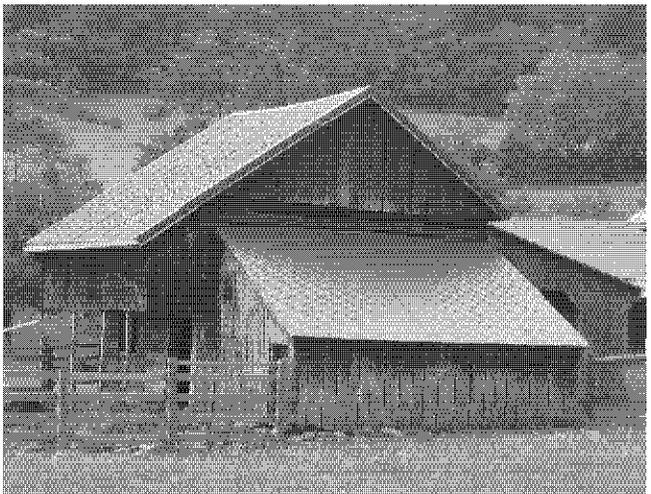
(ii) BRADBURY AVE BARN

COUNTY: Washington

LOCATION: Bradbury Ave (MD 66) just north of Smithsburg

NOTES: A single unit frame barn set on a stone foundation with ridge running east-west. Unlike the barn above, two doors are located on either end of the long elevation and there are two hayloft doors above. The structure is sheathed in vertical wood boards with an overlap with angle cut at the eave of the gable end. There is a diamond shaped cutout high in the gable. The barn currently has an asphalt shingle roof.

H2. SINGLE UNIT BARN WITH FOREBAY (ASYMMETRICAL)



(i) WILLARD FARM BARN

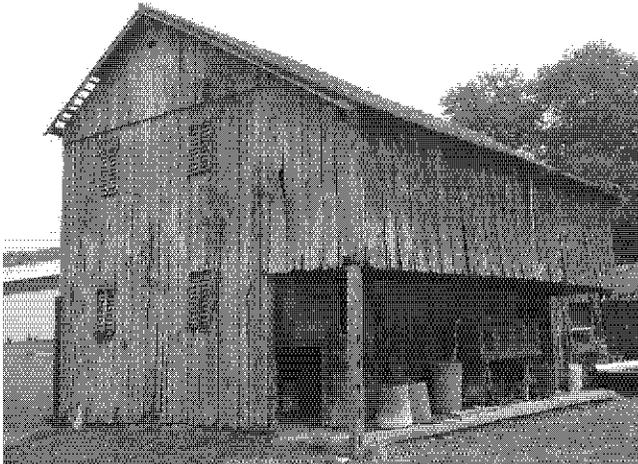
COUNTY: Frederick

LOCATION: 13425 Catoctin Hollow Road

DATE: ca.1830

NOTES: A single log crib with its ridge running east-west and a cantilevered forebay over two Dutch doors on the south side. The entire structure is sheathed with vertical wood boards and there is a shed addition on the north and east sides. The roof is corrugated metal that appears to be a fairly recent replacement.

SOURCE: Mary Kendall Shipe, Frederick County Planning and Zoning Department, "Willard Farm," Maryland Historical Trust State Historic Sites Inventory Form F-6-054, May 1991.



(ii) ARTERS MILL FARM BARN

COUNTY: Carroll

LOCATION: East side of Arter's Mill Road

NOTES: The timber frame structure is sheathed in board-and-batten siding with an overlap at the eave height on the gable end. The ridge runs east-west and there is a cantilevered forebay on the south side. Split arch framed louvers in the gable ends and north wall provide ventilation similar to those on the nearby three-bay barn (J1(iii)). There is also a heart-shaped cutout high in the gable end.

H3. SINGLE UNIT BARN WITH FOREBAY (SYMMETRICAL)

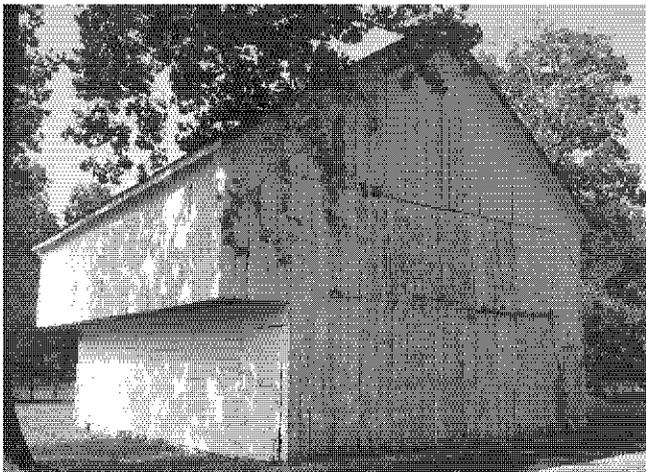


(i) MERCERSBERG-BLAIRS VALLEY BARN

COUNTY: Washington

LOCATION: 13100 Mercersburg Road

NOTES: The small single unit barn has a ridge running northwest-southeast and a cantilevered forebay on the southwest elevation. The lower level on the forebay side has two Dutch doors on either end with horizontal wood boards below two plate windows. The remainder of the barn is sheathed in vertical wood boards with an overlap at the eave in the gable end. There is a double-hinged door on the first level on the northeast side of the southeast elevation. In the center of the upper level of the southeast elevation is a Dutch door accessing the hayloft. There is a board-and-batten shed addition on the northeast side.

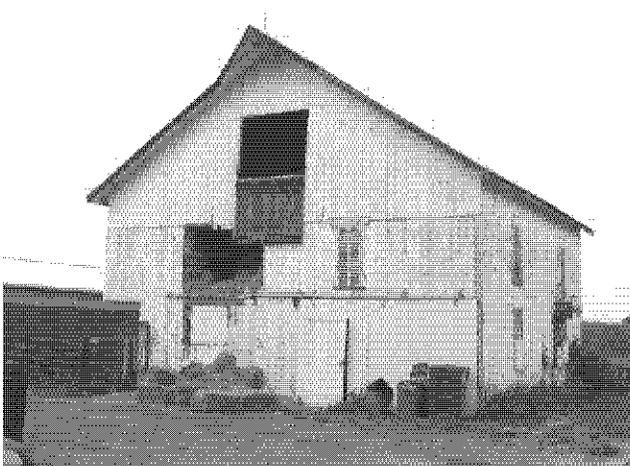


(ii) GARDENHOUR BARN

COUNTY: Washington

LOCATION: 22741 Gardenhour Road

NOTES: This is a single unit barn resting on a stone foundation, with its ridge running north-south, and a cantilevered forebay on the east side. There is a sliding barn door in the north gable end, and hayloft doors. The barn is sheathed in vertical board siding with an angled overlap at the eave in the gable ends. Siding under the forebay consists of horizontal boards and includes three Dutch doors.



(iii) RUGGLES ROAD BARN

COUNTY: Carroll

LOCATION: north side of Ruggles Road

NOTES: The barn is made of frame construction and is sheathed in vertical wood boards. There are rolling doors in the gable end as well as a hayloft door covered by a rain hood. A section of one gable end has been cut out to reveal the hayloft floor. There are decorative split pointed arch louvers providing ventilation.

TYPE I: Transverse crib barn

The transverse crib barn originated in the Tennessee River Valley region in the early nineteenth century. It was efficient for large dairy herds. The plan allows for a central aisle running from gable end to gable end with stables on either side. The transverse crib barn is easily expanded by constructing additional cribs to the end or placing sheds on the sides. Hay is stored in a loft above the stables.⁸⁰ In the mid-Maryland region, the transverse crib barn is seen with a single roof plan from ridge to eave (I1) and two roof planes with a secondary ridge usually at the edge of the central aisle (I2).

II. TRANSVERSE CRIB BARN (SINGLE SLOPE)



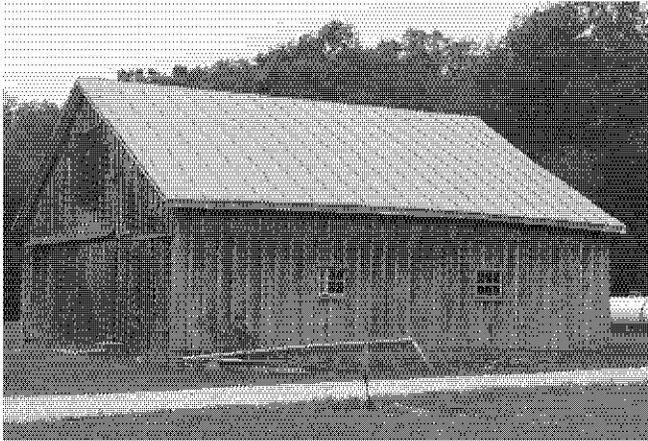
(i) PUTNAM ROAD BARN

COUNTY: Frederick

LOCATION: 10818 Putnam Road

NOTES: Near Mountindale, this transverse crib barn is made of frame construction with ridge running east-west and aisle running north-south. There are sliding barn doors in the gable ends. The entire structure is sheathed in vertical wood boards. There may be two shed additions on the east and west sides. Overall, this barn is in a severely dilapidated condition.

⁸⁰ Vlach, 180-82.



(ii) SILVER RUN VALLEY BARN
COUNTY: Carroll
LOCATION: Silver Run Valley Road

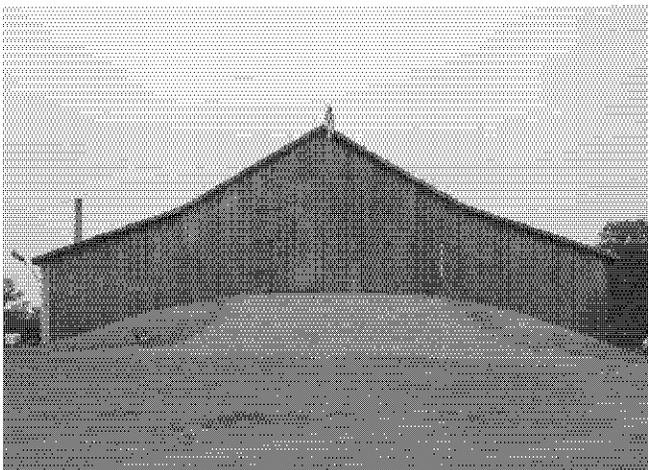
NOTES: This is a frame structure on a stone and brick foundation sheathed in board-and-batten siding. The ridgeline runs southeast-northwest with doors centered in the gable end with a hayloft door flanked by two four-light windows. There are also two six-light windows in the northeast and southwest walls. The roof is standing seam metal.

12. TRANSVERSE CRIB BARN (TWO SLOPES)



(i) THE MAPLES BARN
COUNTY: Washington
LOCATION: Mapleville Rd (MD66) at Chewsville Road

NOTES: Located northwest of a TYPE A3 barn on the same property, this small frame transverse crib barn has a steep ridge running east-west with sheds of shallow slope on either side.



(ii) TAYLOR'S LANDING-FAIRPLAY BARN
COUNTY: Washington
LOCATION: Taylor's Landing Road at Fairplay Road

NOTES: The frame transverse crib barn is sheathed in vertical wood boards. Its ridge runs northeast-southwest with double, three-hinged doors angled at the top centered in the northeast wall. This barn is an exception in this class as a built-up ramp of earth leads to the doors in the center aisle, which is on higher ground than the stables on either side and so it could be considered to be banked.

TYPE J: Double Crib Barn/ Three-bay Barn

The double crib and three-bay barn are similar. The double crib barn can be considered a three-bay barn in cases where a sheltered space, called an aisle or runway, is left open between the two cribs. This space serves the same purpose as the central bay in a typical three bay barn and therefore these two arrangements are considered together.⁸¹

TYPE J1: Double pen forebay barn

Along Hessong Bridge Road north of Layman Road in the vicinity of Thurmont in Frederick County stands the Eicholtz Log Barn built around 1800 (Fig. 15).⁸² Two log cribs with V-notch corners, generally used for sheltering livestock, are separated by a center aisle. These cribs may in some cases be divided into smaller stables although access to the interior of the barn was not available during this study. In this example, the central aisle is enclosed by doors on the north side and is flanked by two projecting sheds that may or may not be original to the structure. The exterior is sheathed in vertical wood boards. On the south side, the central aisle is left open but is protected by an open forebay. The lighter weight timber frame forebay is supported on tapered logs cantilevered from the main structure. The second level was likely used as a hay mow. Glassie notes that this type is found frequently in Washington County and almost always is built of log in central Maryland.⁸³ Ensminger found in his study that overall this type is relatively rare.⁸⁴

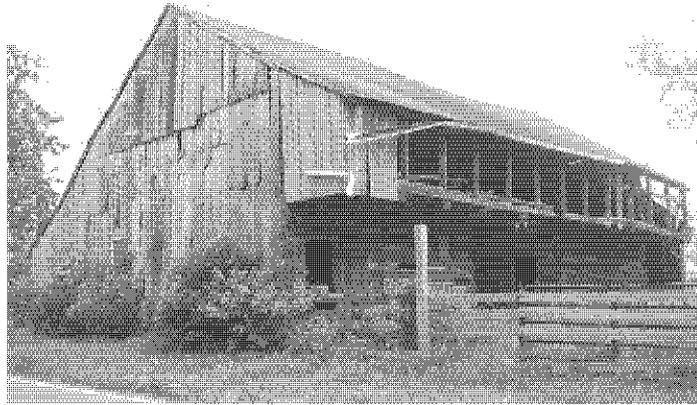


Figure 15, Eicholtz Barn



Figure 16, 3869 Watson Lane, Carroll County

⁸¹ Ibid, 172.

⁸² Deborah Sheetenhelm, Frederick County Office of Historic Preservation, "Eicholtz Log Barn," Maryland Historical Trust State Historic Sites Inventory Form F-6-015, 30 August 1979.

⁸³ Henry Glassie, "The Pennsylvania Barn in the South, Part 1," *Pennsylvania Folklife* 15, no.2 (Winter 1965-66).

⁸⁴ Ensminger, 10.

There was also another barn of a similar form observed along Watson Lane in Carroll County with an asymmetrical gable and an open forebay (Fig. 16). The interior of this ground barn was not accessible. It appears to be frame construction sheathed in vertical wood boards on a stone foundation. Each crib or stable has a single Dutch door opening out under the forebay. A central aisle between the two cribs extends to the edge of the forebay and is enclosed on all sides. This extension has double-hinged doors opening out into the barnyard with a feed rack under the forebay on either side. There are rectangular, wood louvers in all of the exterior walls.

TYPE J2: Gable three-bay barn

The three-bay barn is also referred to as an English, New England, Yankee or Connecticut barn, indicating its origins in the English dominated northeast where agriculture was a lesser part of the economy. Although the bank barn has three bays on the upper level, the ground three-bay barn is different in that it was designed primarily for the storage and processing of grain and did not include the sheltering of livestock.⁸⁵ A study of the distribution of barn types conducted by Allen G. Noble and Gayle A. Seymour suggested that a high proportion of English barns in a given region are indicative of poor agricultural conditions.⁸⁶ Three bay barns were constructed early in the region's history; as agricultural activity increased, the type was abandoned. Therefore, following Noble's and Seymour's argument, the relatively few examples of the three-bay barn in mid-Maryland can be seen as a testament to the region's agricultural productivity.

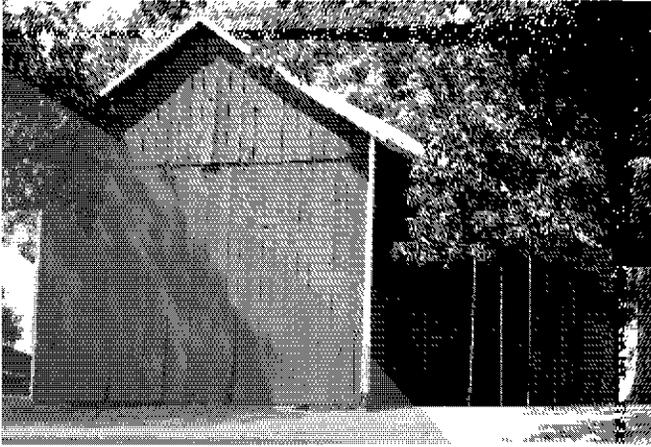
Rectangular in plan, the interior of these barns are divided into three bays with the central bay serving as the main work area similar to a threshing floor in a bank barn. The side bays were used for storage. Large doors opened on both sides of the central bay and allowed a horse-drawn wagon to easily enter and exit the barn.⁸⁷

⁸⁵ Noble and Seymour, 157-58.

⁸⁶ Ibid, 158.

⁸⁷ Michael K. Witzel, *Barns: Style & Structure* (St. Paul, MN: MBI, 2003): 51, 53.

J2. GABLE ROOF THREE-BAY BARN

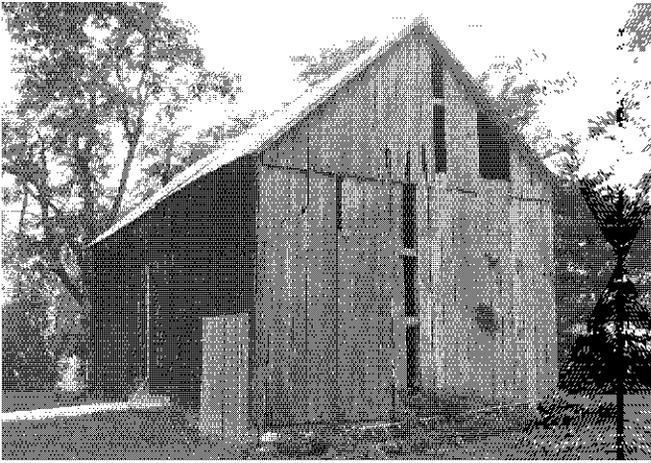


(i) SIXES ROAD BARN

COUNTY: Frederick

LOCATION: West side of Sixes Road south of
Keysville Road

NOTES: The barn rests on a stone foundation, and some loose boards reveal what appears to be a timber frame structure sheathed in flush vertical wood boards with an overlap at the eave in the gable end. The ridge runs east-west and there are double rolling doors in the center of the north elevation. There is a shed addition on the west side.



(ii) BROADFORDING BARN

COUNTY: Washington

LOCATION: 16229 Broadfording Road

NOTES: This is a small timber frame, three bay barn sheathed in vertical boards with an overlap at the height of the eave in the gable. Double hinge doors rise to about two-thirds the height of the structure and are centrally located in the southeast elevation. The ridge runs northeast-southwest. There is a newer, double hinge door about half the height of the structure on the northeast side of the southeast elevation.



(iii) ARTERS MILL FARM BARN

COUNTY: Carroll

LOCATION: 3247 Arter's Mill Road

DATE: Late nineteenth century

NOTES: This barn features timber frame construction sheathed in board-and-batten siding. Three split arch framed wood louvers provide ventilation in the gable sections. A photograph from 1980 shows this barn with horizontal siding and louvers in the long elevations. There are double hinged doors centrally located in the north wall.

SOURCE: Mark Edwards and Orlando Ridout, "Arter's Mill House (Dr. Kelly House)," Maryland Historical Trust State Historic Sites Inventory Form CARR-654, January 1984.

TYPE J3: Hip roof three-bay barn

The Best Farm Barn on the grounds of the Monocacy National Battlefield in Frederick County is the only known barn of this type and has been described as a French-Caribbean style stone barn (Fig. 17).⁸⁸ Two bays constructed entirely of rubble stone, with a water table and leveling courses, are separated by an aisle running east-to-west with an approximate overall dimension of 64 feet by 20 feet. The aisle is open on both sides from the ground level to the eave and is covered by wood siding in the half which may or may not be a later addition. The barn is covered by a hip roof which may be result of its construction during the ownership of the Vincendieres, immigrants from French Haiti, in the 1790s. The north façade has a brick arch door that is now partially filled with stone.⁸⁹

TYPE K: Cross-gable barn

This type is rectangular in plan with a cross-gable roof and has been described as being laid out like a cathedral with nave and transepts.⁹⁰ The cross-gable barn on the Rockland Farm (Fig. 18) in the Westminster vicinity of Carroll County was constructed in 1888 by builder Charles C. Crumbacker of Linwood for Charles C. Roberts. Standing at one and a half stories, it has sliding barn doors in the main gable end with hay loft doors above. This barn measures 40 feet by 84 feet and is sheathed in board-and-batten siding. The length of the barn now has glazed windows; these once may have been louvers and the openings decorated with Victorian style pointed arch trim.⁹¹ The barn now has a flat seam metal roof.

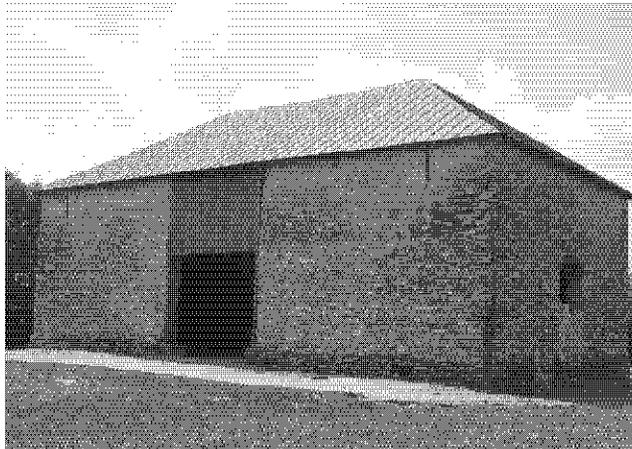


Figure 17, Best Farm Stone Barn, east and north elevations, Monocacy National Battlefield, Frederick County, built ca. 1790.

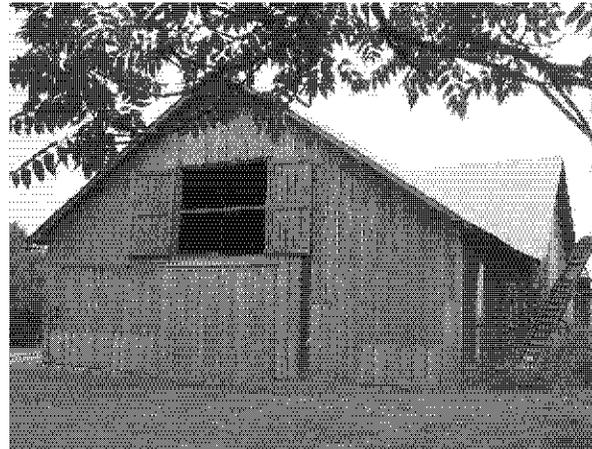


Figure 18, Rockland Farm, west and south elevations, 201 Rockland Road, Westminster, Carroll County, built 1888.

⁸⁸ Paula S. Reed, "Monocacy National Battlefield Cultural Resources Study," Hagerstown, MD, Report, November 1999, updated August 2001 and July 2004, as well as Historic American Buildings Survey documentation conducted by Bucks County Community College, 2006, 94.

⁸⁹Ibid, 163 and Historic American Buildings Survey documentation conducted by Bucks County Community College, 2006.

⁹⁰ Short, 48.

⁹¹ Joe Getty, Carroll County Planning Department, "Rockland Farm," Maryland Historical Trust State Historic Sites Inventory Form Sheet CARR-342, August 1985.

CLASS III: Dairy Barns

TYPE L: Modern Dairy Barn

This class covers the modern dairy barn that came into popular use in the early twentieth century and is characterized by its distinctive roof forms. In general the dairy barn is constructed on level ground with masonry units, sometimes rusticated, for the foundation and the wall up to eave height. Siding in the gables is generally horizontal clapboards or German shiplap. Concrete was essential to the durability of the barn since dairying was conducted year round. It also provided a means to weatherproof the barn and control the interior climate. The roof structure was generally a lightweight balloon frame, which was inexpensive to construct.⁹² The dairy barn at Rose Hill Manor Park in Frederick County, built on a fieldstone foundation with frame construction throughout, is one exception to this use of concrete (Fig. 197). Another is the Springfield State Hospital run by the Maryland Department of Health and Mental Hygiene in Carroll County. This complex included a farm operation with several barns built in the 1920s and 1930s that were constructed of cast concrete covered in stucco and diamond-shaped asbestos tiles.⁹³

The modern dairy barn is entered on the gable ends into a central aisle flanked on either side by milking stalls. This arrangement determined the narrow width of the barn, which was preferred in the early twentieth century in order to allow as much light to enter as possible. With the widespread use of new technologies such as milking machines, manure carts, and mechanical hay tracks, the length of the dairy barn was only limited by the number of cows.⁹⁴ Hay was stored on the second level and could be lowered to ground level on a hay track that extended through doors

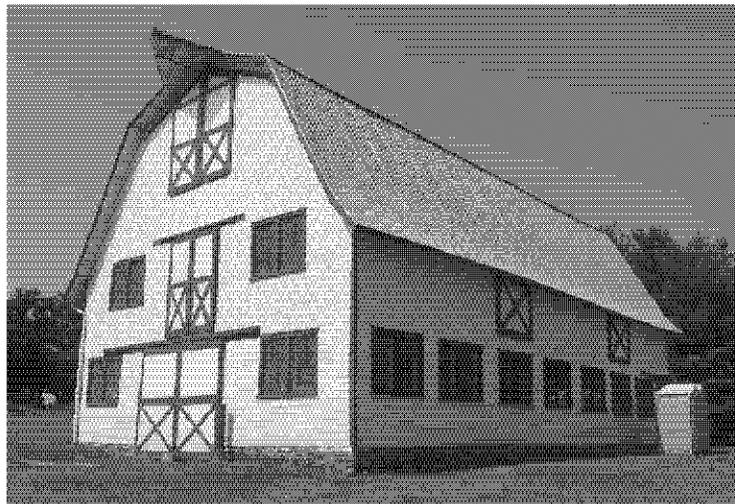


Figure 19, Rose Hill Manor Dairy Barn

often under the protection of a roof projection called a rain hood. In the mid-Maryland region, dairy barns of this type were also referred to as “Washington barns” because Washington, D.C., was the major

⁹² Witzel, 95-97.

⁹³ Laura L. Bowlin, Office of Planning, Maryland Department of Mental Health and Hygiene, “Horse Barn-Springfield,” “Dairy Barn-Springfield,” “Youth Center- Springfield (Cow Barn),” Maryland Historical Trust State Historic Sites Inventory Forms CARR-1237, CARR-1238 and CARR-1240, 1986.

⁹⁴ Vlach, 186-87.

market and all milk had to be produced under certain sanitary conditions.⁹⁵ Unlike other barns in the region, the modern dairy barn type originated in the Midwest at the Wisconsin Agricultural Experiment Station in Madison, Wisconsin, sometime during the first quarter of the twentieth century as an attempt to find the most efficient structure for dairy farming.⁹⁶ Modern dairy barns were built in mid-Maryland primarily during the period from 1920 to 1950 and the following sub-types were found to have been constructed simultaneously within the region.

L1: Gambrel roof dairy barn (concrete block)

The gambrel roof of this subtype is set directly on the concrete block foundation in all but one known example, in which a couple feet of framing placed on top of the foundation elevates the roof. The eaves of the roof are flared in the Dutch gambrel style. Gambrel roof dairy barns may or may not have a rain hood. Those with a rain hood always have a set of hayloft doors directly underneath. This is the most common roof form observed for dairy barns within the region.

L1. GAMBREL ROOF DAIRY BARN



(i) SPRINGFIELD DAIRY FARM

COUNTY: Frederick

LOCATION: 12108 Auburn Road

DATE: 1941

NOTES: This barn replaced a bank barn on this site. The first level is made from concrete block. To either side of the centrally placed door is a six-over-six light window. The upper structure is wood frame sheathed in German siding in the gable section. The hayloft door is also flanked by six-over-six light windows, though it is sheltered by a rain hood as well. The roof has a flared eave and two metal ventilators on the ridge.

SOURCE: Janet L. Davis, Frederick County Planning and Zoning Department, "Springfield Dairy Farm (Walker Farm," Maryland Historical Trust State Historic Sites Inventory Form F-3-076, September 1992.

(ii) SUNNYSPOUT FARM

⁹⁵ Bob Jones, former head of Carroll County Agricultural Extension, personal communication with the author, 31 July 2007.

⁹⁶ Noble and Seymour, 161.



COUNTY: Washington
LOCATION: 17224 Broadfording Road

NOTES: The barn has a concrete block raised foundation and German siding in the gable section. The ridge runs southeast-northwest and has three metal ventilators. There are eleven six-light windows along the length the barn with two dormers in the lower slope of the gambrel roof. The gable end has two windows on either side of the main door, above which is a sliding hayloft door and three framed rectangular louvers providing ventilation. Behind this barn is a large banked barn, also with a gambrel roof.



(iii) STONER-SAUM FARM
COUNTY: Carroll
LOCATION: McKinstry's Mill Road

NOTES: The barn is made of a concrete block raised foundation and has horizontal wood siding in the gable section. The ridge runs east-west and has two metal ventilators. Above the main barn door are a pair of small double doors, a pair of large hayloft doors angled to the slope of the roof with a four-over-four light sash window on either side, and a rain hood. There is also an attached dairy on the south side of this barn.

L2: Pointed-arch roof dairy barn

Type J3 is generally identical to J4, differentiated by the concave roof planes coming to a point at the ridge to form a pointed arch or Gothic arch shape. The example shown below is located at the intersection of Four Point Road and Motters Station Road in the vicinity of Emmitsburg in Frederick County (Fig. 20). There are several other barns of this type within the region including that at the Miller-Warner Farm near Lineboro built in 1941, the Close Farm near Westminster built in the early twentieth century, and the barn at the Biggs Farm in Detour built around 1920.⁹⁷ All three of these barns are located in Carroll County. Another of this type formerly stood on the Forney-Mikesell Farm near Thurmont in Frederick

⁹⁷ Kenneth Short, Carroll County Department of Planning and Zoning, "Miller-Warner Farm," Maryland Historical Trust State Historic Sites Inventory Form CARR-1314, 21 July 1992; Joe Getty, Carroll County Department of Planning and Zoning, "Close Farm," Historic Resources Field Sheet, CARR-757; and Kenneth Short, "William and Catharine Biggs Farm (CARR-1644)," National Register of Historic Places Registration Form, December 2000. This form notes that the design of Biggs Farm closely resembles that of prefabricated barns sold by Sears, Roebuck around 1920.

County but was demolished in the 1990s.⁹⁸ This roof form was also used in additions to barns as in the case of the Del Myer Farm in the vicinity of Westminster in Carroll County where a dairy barn with modern point-arch roof was constructed in 1946 perpendicular and attached to a frame bank barn from 1877.⁹⁹



Figure 20, Pointed-arch roof dairy barn, Emmitsburg, Frederick County



Figure 21, Martin Farm, 10427 Welty Road, Emmitsburg, Frederick County (photo: Mary Kendall Shipe)

L3: Barrel roof dairy barn

The Martin Farm in the vicinity of Emmitsburg in northern Frederick County was the only example of this type to be encountered during this study (Fig.21). Like the other dairy barns, it is constructed of concrete block with vertical board siding but has a barrel roof covered in standing seam tin.¹⁰⁰

Purpose-built dairy barns, like the abovementioned types, were not the only ones used for dairying. The shift from grain production and storage to dairying required farmers to make alterations to older bank barns in order to accommodate a larger number of animals. Farmers built stalls and enclosed forebays with concrete block to gain space and accommodate tasks like milking twice a day, feeding, and manure removal.¹⁰¹ Sheds, loafing barns, and milk houses were also common additions to the bank barn within the region (as discussed in Part I). The gambrel roof was also adopted in some bank barns (Fig. 22, 23), possibly when replacing a barn after fire or possibly just to acquire more storage space on the upper level.

⁹⁸ Mary Kendall Shipe, Historic Sites Surveyor, Frederick County Department of Planning and Zoning, "Forney-Mikesell Farm," Maryland State Historic Sites Inventory Form F-6-049, April 1991.

⁹⁹ Rita Suffness, Cultural Resource Group, Maryland State Highway Administration, "Goodwin-Myers House, Del Myer Farm," Maryland Historical Trust State Historic Sites Inventory Form Sheet CARR-1359, 22 May 1993.

¹⁰⁰ Mary Kendall Shipe, Historic Sites Surveyor, Frederick County Planning and Zoning Department, "Martin Farm," Maryland Historical Trust State Historic Sites Inventory Form F-6-072, June 1991.

¹⁰¹ Reed, 142-143.



Figure 22, 2704 Rohrsersville Road (MD 67) Washington County



Figure 23, 13315 Old Frederick Road, Frederick County

PART III: PARTS AND DETAILS

1. Ventilation

Since damp hay left to cure in the mows of barns could produce enough heat to cause spontaneous combustion and fire, ventilation was essential to the longevity of any barn and to protect the farmer's investment. Each material and construction technique had different methods of incorporating ventilation into the exterior walls of the barn.

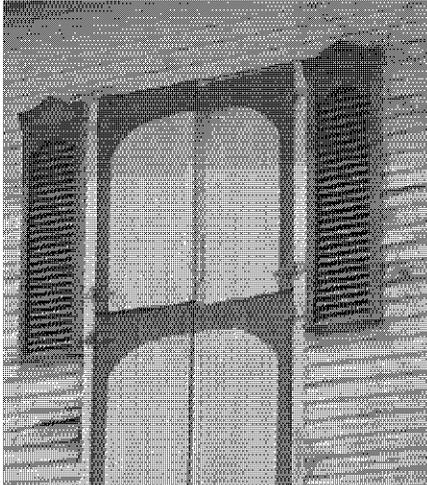
A. Louvers

In barns with vertical board wood siding ventilation was accomplished by attaching the boards flush to one another when they were green and allowing the natural shrinkage that occurred when the wood dried out to create gaps between the boards that not only allowed provided a means of ventilation but provided light to enter the otherwise dark barn.¹⁰² Another common form of ventilation was through louvered openings. These can be found in the form of simple rectangle louvers, arched louvers, and elaborated decorated louvers arranged in pairs or patterns. Louvers can also be seen in barns without wood tongue-and-groove or board-and-batten siding and were also seen in a stone barn. Many louvers were replaced as glazed windows became more readily available.¹⁰³

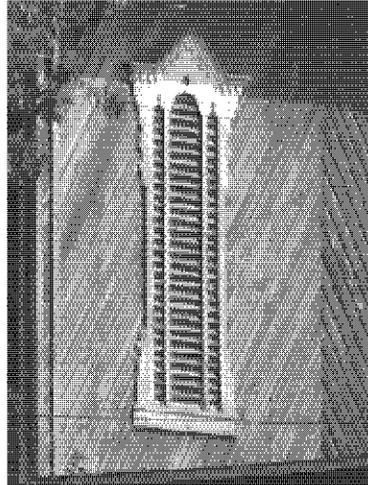
¹⁰² Keven Walker, Historian, Cultural Resource Specialist, Antietam National Battlefield, 14 June 2007.

¹⁰³ Sloane, 70.

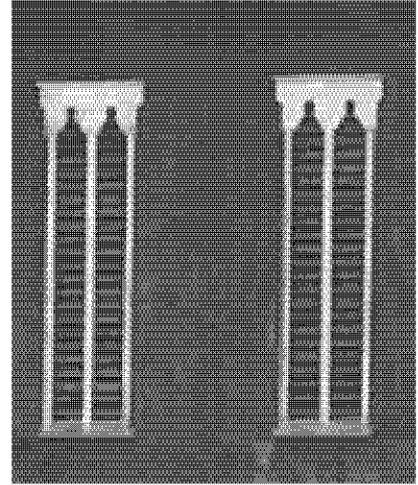
A. Louvers



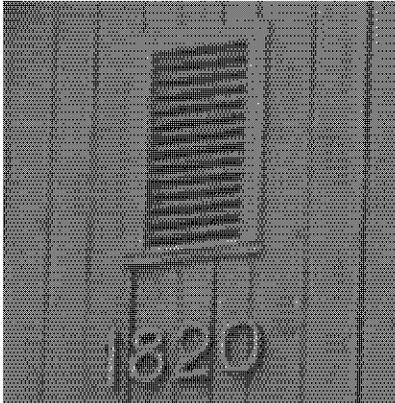
(i) 12724 Greencastle Pike, Washington County



(ii) Riverside Farm, Sixes Road, Frederick County



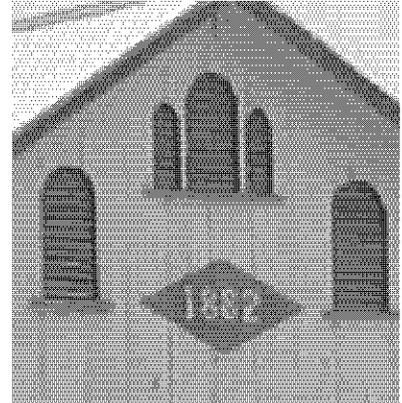
(iii) Middleburg Road, Carroll County



(iv) Blairs Valley Road, Washington County



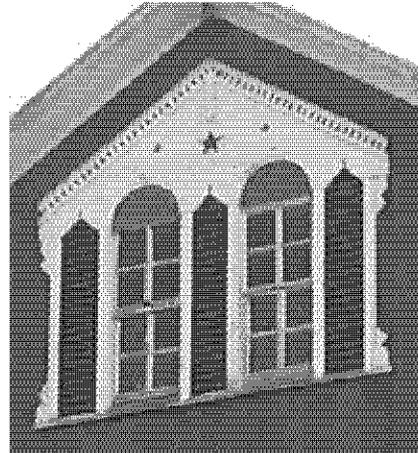
(v) Good Intent Road and Keymar Road, Frederick County



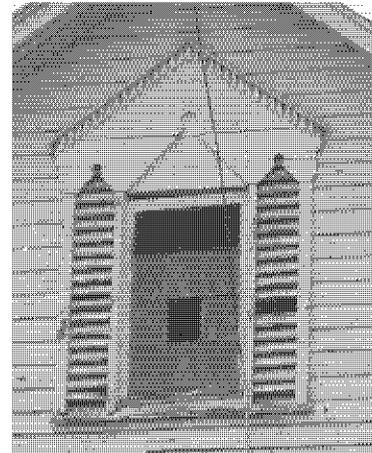
(vi) Ramsberg Road, Frederick County



(vii) 13315 Old Frederick Road, Frederick County



(viii) Gregg Road and Keysville Road, Frederick County

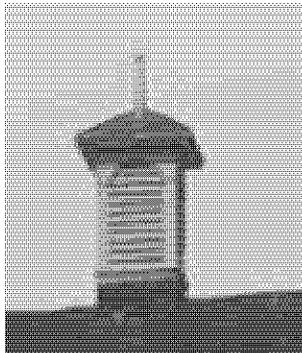


(ix) Teeter Road, Carroll County

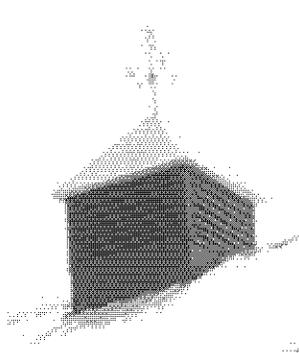
B. Cupolas/Ventilators

Another method of ventilation was the use of cupolas built along the ridgeline. They could be square in shape with louvers or once developed, glazed window frames, which also served to light the barn.¹⁰⁴ Ventilators were seen as round, in metal, and with a variety a decorative styles. The cupolas may have been developed after an understanding of rising heat emerged.¹⁰⁵ Another possible source for the development of the cupola has been said to be the Puritan belief that a lightning rod on a barn pointing up at God was bad practice which led to the rods being covered with boxes that gradually changed into ventilating cupolas.¹⁰⁶ The cupola was also a status symbol for they signified the prosperity and sophistication of well-to-do farmers. Barns in the region can be seen with up to five cupolas.¹⁰⁷ Decorative and ventilating cupolas became popular in the mid- to late-nineteenth century.¹⁰⁸ Cupolas in the mid-Maryland region were observed to be simple boxes with louvers on all sides as well as decorative metal ventilators or larger cupolas with windows and louvers on all sides. Cupolas may have been original to some barns but in many cases it appears, from the alterations to the structural framing, that many were later additions. A number of barns have since lost their cupolas or the cupolas can be found in a significantly deteriorated state. The images on the following page illustrate some of the cupolas found in mid-Maryland.

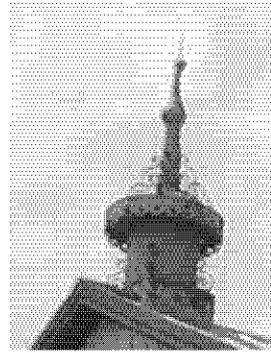
B. Cupolas/Ventilators



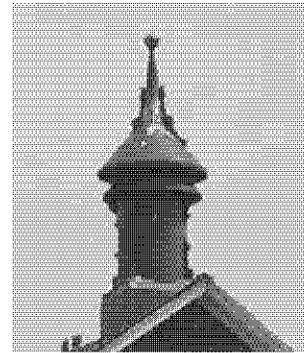
(i) 5630 Ijamsville Road, Frederick County



(ii) Sixes Road at Simmons Road, Frederick County



(iii) 17224 Broadfording Road, Washington County



(iv) Shafer Farm, Downsville Pike at I-70, Washington County

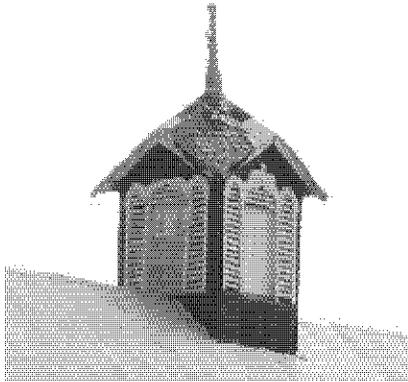
¹⁰⁴ Randy Leffingwall, *Barns* (Osceola, WI: MBI Pub. Co.: 2001): 61

¹⁰⁵ Leffingwall, 61.

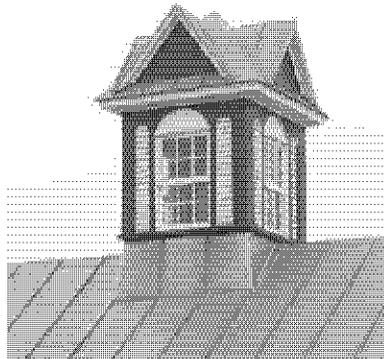
¹⁰⁶ Short, 25

¹⁰⁷ Leffingwall 61 and Elric Endersby, Alexander Greenwood, David Larkin, *Barn: The Art of a Working Building* (Boston: Houghton Mifflin, 1992): 84.

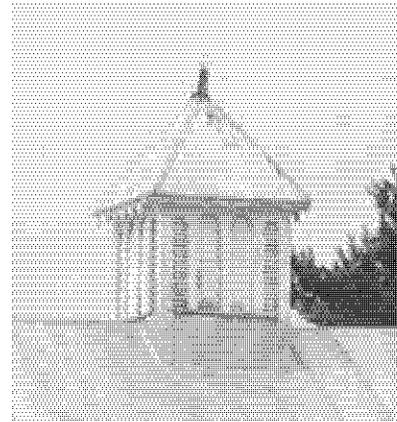
¹⁰⁸ Reed, 80 and Endersby, Greenwood, Larkin, 84.



(v) Green Valley Road at Watson Lane,
Union Bridge, Carroll County



(vi) Alms Barn, Carroll County Farm
Museum, Westminster, Carroll County



(vii) Bauer-Bachman Farmstead,
Bachman's Valley Road, Manchester,
Carroll County

C. Brick patterns

Probably one of the most intricate and decorative methods of ventilation is the patterned open brickwork found in the gable and ramp walls of all brick barns. The bond was often 5: 1 common or American pattern, meaning every sixth row was a course of headers.¹⁰⁹ Walls on brick barns were sometimes sixteen inches thick to achieve the needed strength. Patterns were formed by arranging openings the size of one header to form shapes that allowed air and light to enter the barn. Brick barn construction was the work of skilled bricklayers who traveled to the farm and often made the brick and mortar onsite.¹¹⁰ While the patterns used in this type of construction tend to be limited, their combination varies from barn to barn and no two identical barns were observed in this study. The patterns have been attributed with a symbolic or religious significance, like the three wafers and three chalices to signify the Trinity or an X representing a cross.¹¹¹ Other named patterns include the unfolding lily formed by four diamonds radiating from a point, a wheat shaft or hourglass formed by two inverted triangles, and the bushel measure of wheat represented by a square or rectangle. Other patterns include initials, dates, and a gothic pointed arch.¹¹²

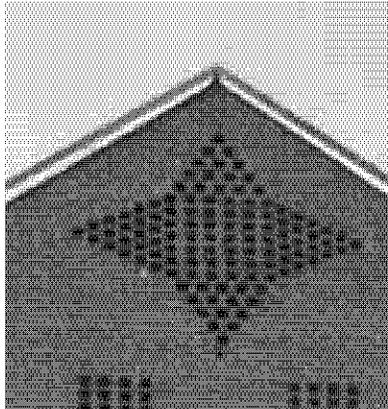
¹⁰⁹ Short, 43.

¹¹⁰ Stair, 3, 8.

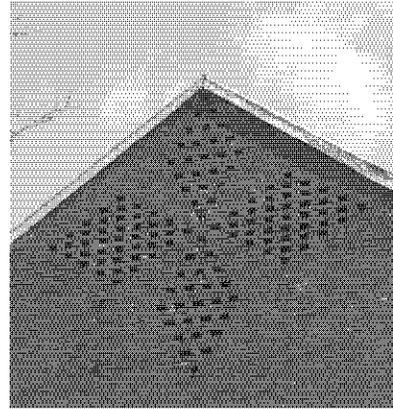
¹¹¹ J. William Joynes, "Brick End Barns," unidentified and undated newspaper clipping in the files of the Carroll County Historical Society; James Birchfeld, "Beauty in Barn Walls," *The Star Magazine* (Washington, D.C.) 31 May 1959.

¹¹² Stair, 6-9.

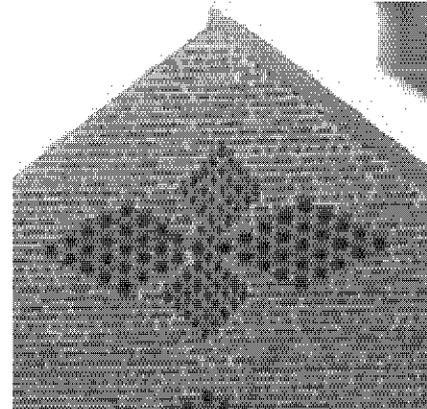
C. Brick Patterns



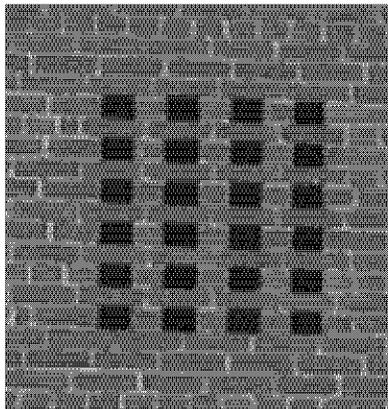
(i) Star, Walkersville Farm Heritage Park, Frederick County



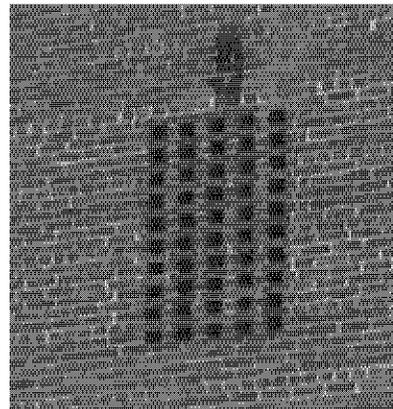
(ii) Unfolding lily, Littlestown Pike on the border of Frederick and Carroll Counties



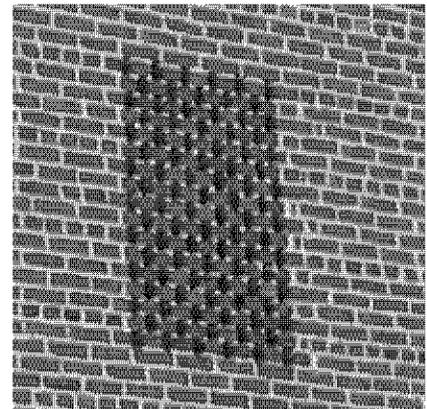
(iii) Unfolding lily, Dennis Farm, south side of National Pike east of Clear Spring



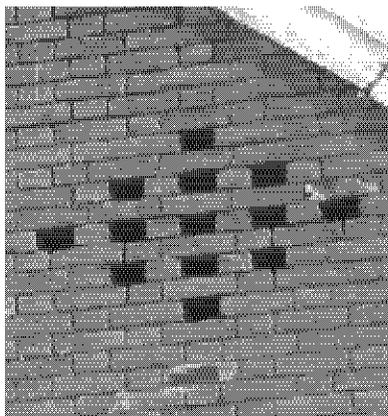
(iv) Square/bushel measure Walkersville Farm Heritage Park, Frederick County



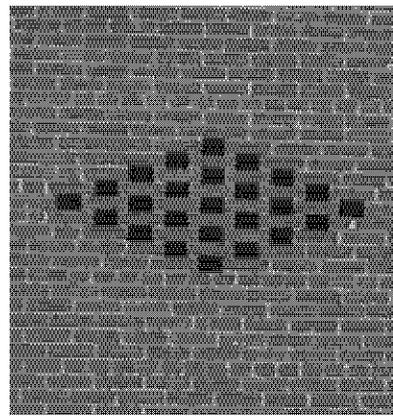
(v) Rectangle/bushel measure (headers and stretchers), Calvin Harman Barn, 4334 Littlestown Pike, Carroll County



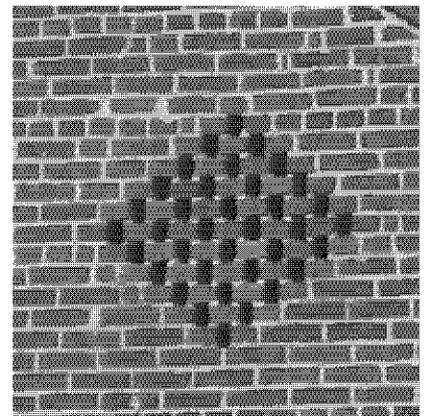
(vi) Rectangle/bushel measure (all headers), Meyerhoffer Farm, 12355 Harney Road, Frederick County



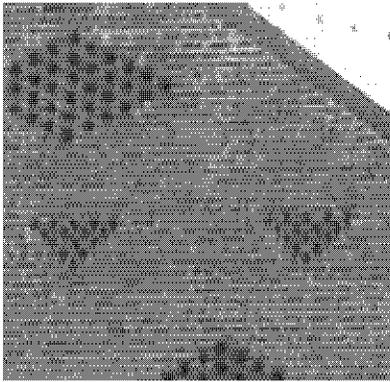
(vii) Diamond/wafer (headers and stretchers), Littlestown Pike on the border of Frederick and Carroll Counties



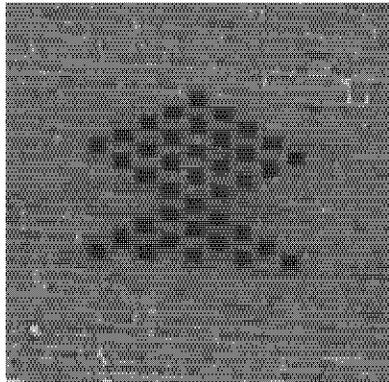
(viii) Diamond/wafer (all headers), Walkersville Farm Heritage Park, Frederick County



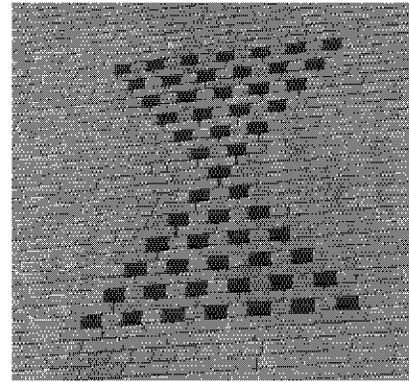
(ix) Diamond/wafer (all headers), Meyerhoffer Farm, 12355 Harney Road, Frederick County



(iii) Triangles, Dennis Farm, south side of National Pike east of Clear Spring



(xii) Wine glass, Shafer Farm, Downsville Pike and I-70, Fairplay, Washington County, built ca. 1851 (WA-I-264)

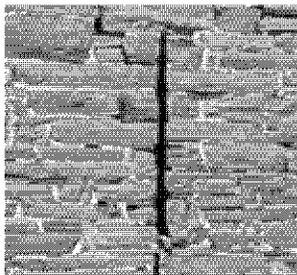


(x) Wheat shaft/hour glass, Haines Barn, 110 Stem Road, Carroll County

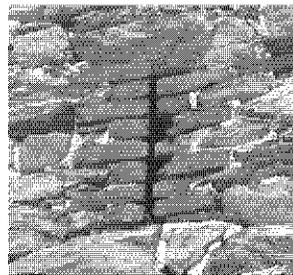
D. Stone ventilation

The most common method of ventilating stone barns was the vertical slit, also referred to as balistratas, referencing their fortress-like appearance, or loopholes.¹¹³ Loop, or loophole, was a term used as far back as the fifteenth century to describe castle windows. Loopholes were aligned in several rows on all sides of the barn and were flared on the inside. This design may have been used consistently due to its aerodynamic properties that pulled air out and prevented rain from entering.¹¹⁴ In at least one case, the bricks were set within the stone to construct the loopholes. In another, framed rectangular louvers were set within the stone.

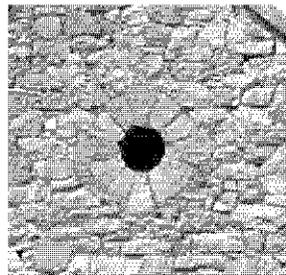
D. Stone ventilation



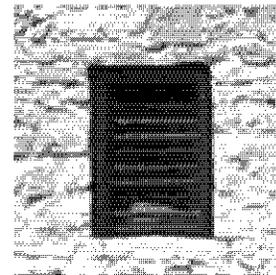
(i) Loophole, Barkdoll Farm, Manor Church Road, Washington County



(ii) Brick-lined loophole, Herring Farm, Green Valley Road at Beaver Dam Road, Frederick County



(iii) Finished stone circle opening in gable, Funk-Artz Farm, Rench Road, Washington County



(iv) Louvers in stone, Funk-Artz Farm, Rench Road, Washington County

¹¹³ Leffingwall, 61.

¹¹⁴ Sloane, 70.

E. Paint

Prior to the end of the eighteenth century, painted barns were considered a useless extravagance, not to mention vulgar and showy.¹¹⁵ The most common colors of paint observed during this study were red, frequently seen with white trim, and white with green trim. These colors contrasted with the green fields and the blue sky, causing the barn – the pride of the farmer – to stand out in the landscape.¹¹⁶ At one time, the paint for barns was mixed by hand from red oxide found in the soil, linseed oil from flax crop and casein from milk.¹¹⁷ In the early 1900s, the paint was manufactured and sold in hardware stores. One example is the paint sold by the Ebert Hardware Company in Frederick who advertised, “English Red Venetian Barn paint, finely ground. Guaranteed to wear longer than hand mixed paint and to cover 30 percent more per gallon than paint mixed by hand.” The best grade was sold for 85 cents per gallon and was guaranteed for five years while the medium grade was sold for 75 cents per gallon and guaranteed for just three years.¹¹⁸

An interesting trait of many barns in the region are the painted or “windowless windows”; these were common in the early twentieth century.¹¹⁹ This tradition is seen throughout the mid-Maryland region as well as in nearby Howard and Montgomery counties. The *Baltimore Sun* magazine interviewed veteran barn painter, Mr. Dailey, who began working in the early 1900s in Carroll County. Dailey said that in the early 1900s no one would think of painting a barn without the “windows” and that each farmer would have a special pattern made to distinguish himself from his neighbors. Dailey revealed that special effects were achieved by diminishing the proportions for each tier of painted windows, with the smallest in scale placed close to the roof.¹²⁰ Most barns observed during the course of this study had rounded arch or pointed arch “windows” arranged in different patterns. Several barns in the vicinity of Creagerstown and Utica in Frederick County had similar patterns with a circle painted in the gable, which may suggest a single barn painter covered many barns in that in area (Fig.20). This type of painting is also seen on the doors of the barns, where often arches are painted onto otherwise rectangular wood doors (Fig. 21).

¹¹⁵ Eric Sloane, *American Barns and Covered Bridges* (Mineola, NY: Dover Publications, 2002): 64-65.

¹¹⁶ Bill Brosius, “Historic Structure to be destroyed?” *Frederick News-Post*, 17 April 17 2005. The Barn at Eaglehead is described as being “painted a proud red.”

¹¹⁷ Endersby, Greenwood and Larking, 126.

¹¹⁸ Advertisement for the Ebert Hardware Co. *The News (Frederick, MD)* 17 July 1914.

¹¹⁹ Reed 80.

¹²⁰ Frances W. Johnson, “A Tradition of Maryland- For as long as anyone can remember, ‘Windowless Windows’ have been popular in Three Counties,” *Baltimore Sun*, Sunday Magazine, 1 February 1959.

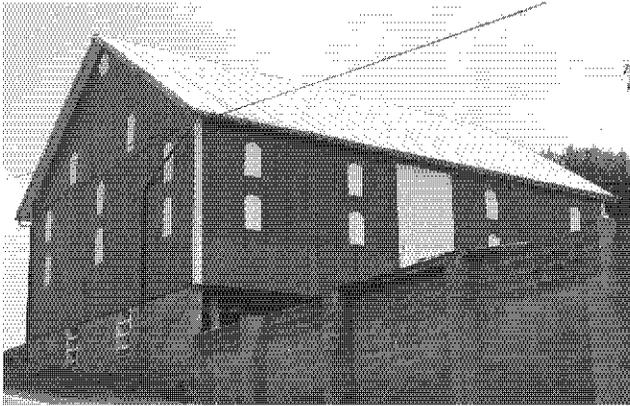


Figure 20, Painted windows, 8223 Ramsberg Road, Frederick County

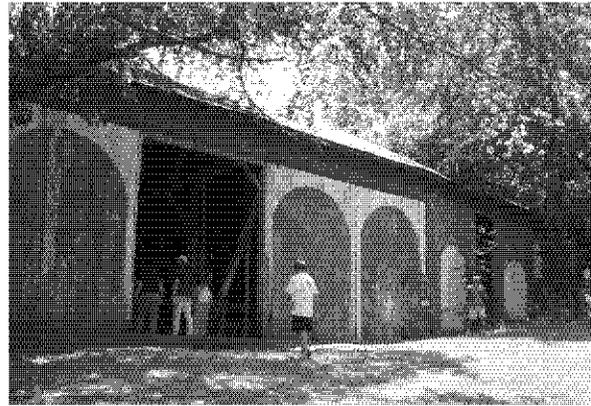


Figure 21, Painted doors, Segal Farm, Frederick County, built ca. 1900

A less common type of barn painting was that of advertisements. In some cases, allowing a product to be promoted on the side of a barn was an inexpensive way for a farmer to get a free paint job in a less prosperous region.¹²¹ In order for this to be successful, however, the barn must be located on a significant transportation route. Two barns painted with advertisements for Mail Pouch Tobacco were observed in Carroll County on Route 27 (Figure 22, 23), a major road that cuts northeast to southwest across the county. Another barn outside of Hagerstown had an advertisement for Leiter Brothers Women's Apparel.



Figure 22, Mail Pouch Tobacco Barn, Manchester Road (MD 27) south of Manchester, Carroll County



Figure 23, Mail Pouch Tobacco Barn, Ridge Road (MD 27) south of Liberty Road (MD 26), Carroll County

F. Silos

Silos were first constructed in American in the 1870s to satisfy the increasing need to feed larger dairy herds year round. The silo was an airtight receptacle that was used to store corn or other feed that prevented fermentation and provided a constant food supply even in the winter. Like the dairy barn, the silo was first developed in the Midwest. Popular agricultural journals highlighted its advantages and the

¹²¹ Endersby, Greenwood and Larkin, 107.

form spread to other areas of the country. By the beginning of the twentieth century they were accepted additions to the farm. In addition to publishing barn plans, the Wisconsin Department of Agricultural Engineering furnished information about silo construction such as height to diameter ratios that led to fairly standardized heights of 35 to 40 feet or about the height of the barn roof.¹²² During the course of this study it was very common to see barns accompanied by silos constructed of concrete or tile that were placed on the gable ends or ramp side of the barn. Many working farms had multiple silos (Fig. v). A short silo was observed on Arter's Mill Road that may be constructed of tile block coated in concrete to prevent the permeation of silage acids through the mortar (Fig. i). There are also silos with tile on the exterior which may have a coating of concrete on the interior (Fig. iii).¹²³ The hand-molded brick silo at the Thomas Farm at the Monocacy National Battlefield in Frederick County is unique to this area. It has six reinforcing adjustable steel hoops spaced in increments with a conical metal roof (Fig. ii).¹²⁴ This silo may have been constructed to accompany an earlier brick barn that was on the site of the current timber frame barn. At this time, the brick silo has been stabilized until repairs are made to the metal roof.¹²⁵ Examples of double silos were also seen (Fig. iv). Silos represent the changing trends in agriculture, signal the location of a barn, and often remain standing after the barn is long gone (Fig. vi).

PART IV: CONCLUSION

This study is far from complete. Suggestions for future research would include a more in-depth study that would lead to dating the ground barns in the region. It would also be useful to identify barns built by a specific contractor, whether by identifying unique framing types or by other methods. This report presents a typology of barns in mid-Maryland based on a study of three counties. The bank barn and all its variations represent the influence of the Pennsylvania German tradition on the region and mark larger patterns of migration. The vast number of barns alone indicates how central agriculture was to the economy of the region. The change in materials, from locally cut timber and bricks burned from local clay to the widespread use of the concrete masonry unit, as well as to the introduction of a new major type, the dairy barn, is representative of a major shift in agricultural practice. This is also evidenced in the numerous alterations and adaptations of barn signaling the changing trends in agriculture and technology whether influenced by popular ideas in agricultural journals or mandated by health regulations.

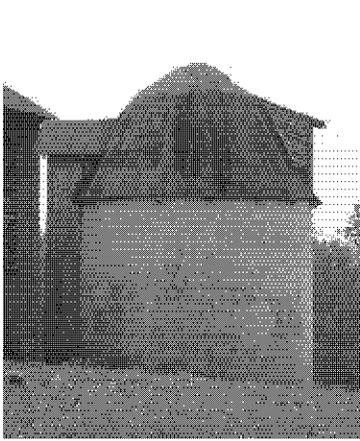
¹²² Peggy Lee Beedle, "Silos: an agricultural success story," from *Giving Old Barns New Life*, a publication of the University of Wisconsin-Extension, State Historical Society of Wisconsin and the Wisconsin Trust for Historic Preservation, available at <http://learningstore.uwex.edu/>.

¹²³ Ibid.

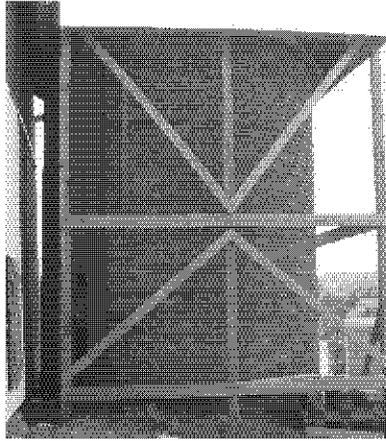
¹²⁴ David Beaver, *Thomas Barn Emergency Stabilization- Historic Structures Record of Treatment*, National Park Service Historic Preservation Training Center, 2004.

¹²⁵ Joy Beasley, Cultural Resources Program Manager, Monocacy National Battlefield, National Park Service, Personal communication with the author, 13 August 2007.

F. Silos



(i) Tile and concrete silo, Arter's Mill Road, Carroll County



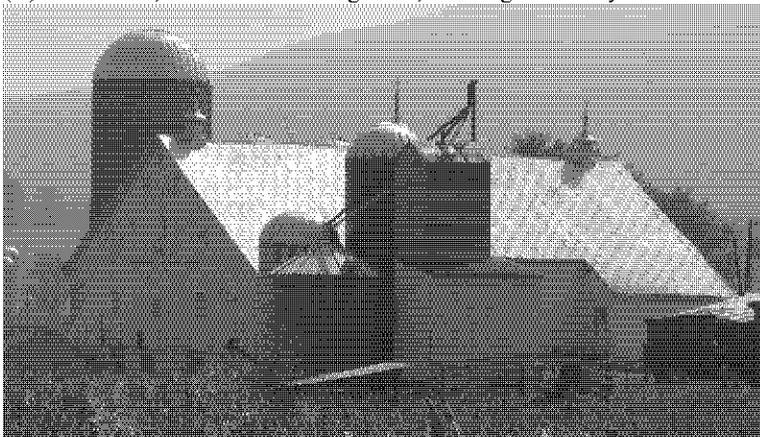
(ii) Brick silo, Thomas Farm, Monocacy National Battlefield, Frederick County



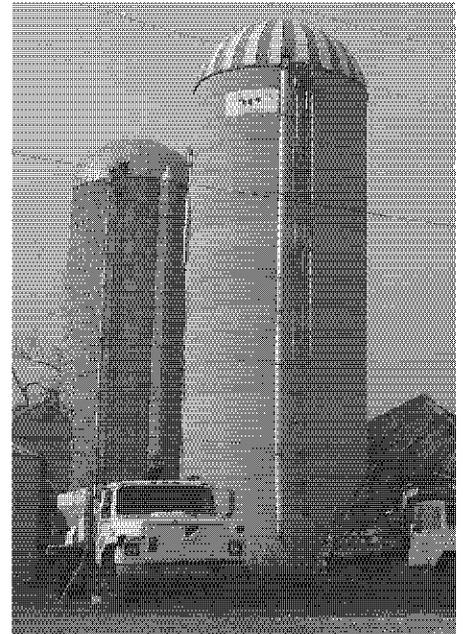
(iii) Tile silo, Glissans Mill Road, Frederick County



(iv) Double silo, 13644 Broadfording Road, Washington County



(v) Barn with multiple silos, Misty Meadow Road, Washington County



(vi) Two concrete silos remain standing after the adjacent dairy barn has collapsed, 3803 Sams Creek Road, Carroll County

PART V: APPENDICES

A: TIMBER FRAMING DETAILS



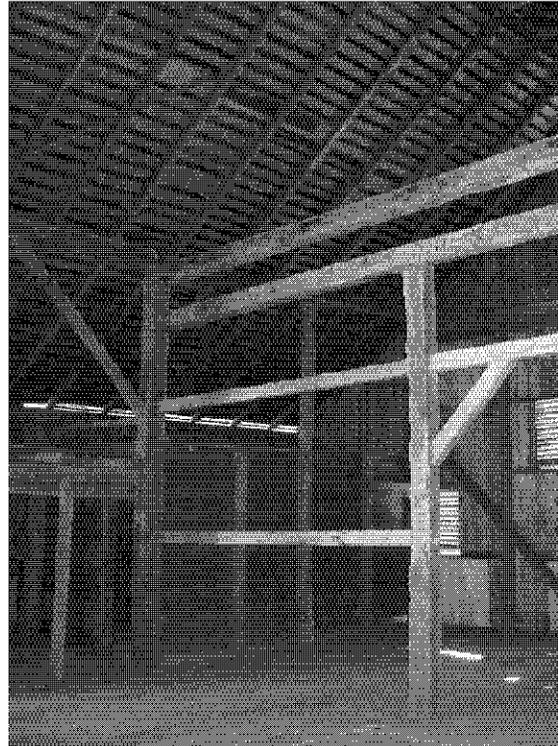
A1. Baker Farm

County: Frederick

Location: Monocacy National Battlefield

Date: Second half of nineteenth century

Braced post-to-purlin framing system. The bents have three interior posts with only the end posts running full to the height of the purlin. The central post rises to the height of the tie beam, which is much lower than the height of the purlin. Secondary girts span the space between end posts and the framing on the exterior wall.



A2. Snook Farm

County: Frederick

Location: Utica Park

Date: ca. 1840-50

Braced purlin post framing with six interior bents. The central bent and those two flanking the threshing floor have three interior posts that rise full to the tie beam at the height of the purlin. The outer bent on the northwest side has three interior posts but only the end posts rise to the tie beam. A bent with two interior posts divides both mows.



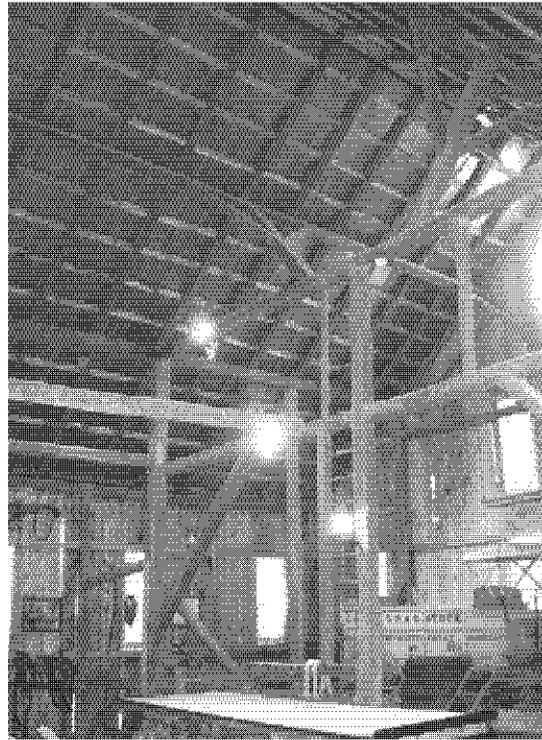
A3. Thomas Farm

County: Frederick

Location: Monocacy National Battlefield

Date: ca. 1890-1920

Braced post-to-purlin framing system. The tie beam runs from post to post at the height of the primary purlin and supports two canted and braced queen posts with diagonal struts. Girts connect the purlin posts to the exterior wall framing at the height of the eave. Each bent has only two interior posts but especially long braces supporting the tie beam.



A4. Alms Barn

County: Carroll

Location: Carroll County Farm Museum

Date: 1853

Braced post-to-purlin framing system. The bents have three interior posts that all run full to the tie beam at the height of the primary purlin. The tie beam supports two canted and braced queen posts. Secondary braced girts run between the posts and connect the bents at the height of the eave. They also connect the ends posts to the exterior framing.



A5. Pry Farm Barn
County: Washington
Location: Antietam National Battlefield
Date: 1844

Canted and braced queen post with wind bracing framing system with three interior bents. The central bent has three posts and divides the threshing floor. This aisle post on the central bent has a bolster while all other posts have braces. All other bents have four posts. The end post, on all bents, is the only one that rises to the tie beam at the height of the eave. A girt runs between the end posts.



A6. Mumma Farm Barn
County: Washington
Location: Antietam National Battlefield
Date: ca. 1870

Diagonal queen post framing system similar to Pry Farm Barn (A5), although all three interior bents have four posts.



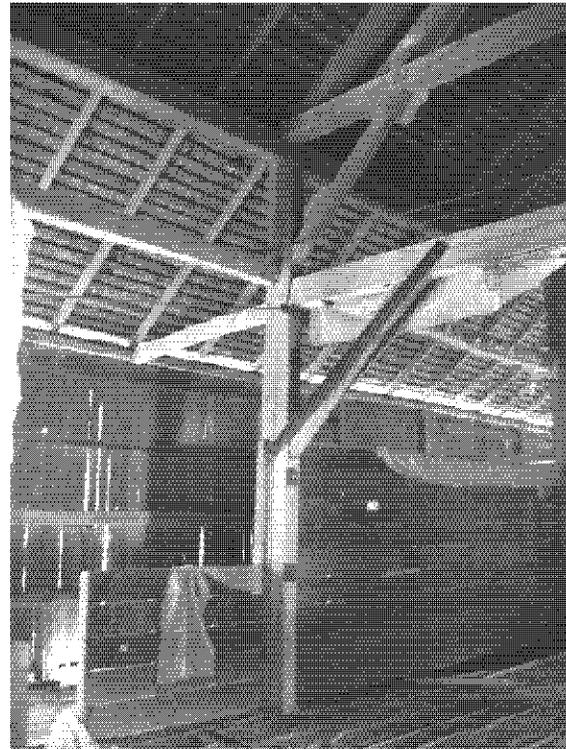
A7. Roulette Farm Barn

County: Washington

Location: Antietam National Battlefield

Date: ca. 1830

Four post bents with canted queen posts, except the central bent that divides the threshing floor has only three posts. The aisle post on the central bent has a bolster while end posts have braces. Only the end posts run continuously to the tie beam at the height of the eave and are supported by down braces.



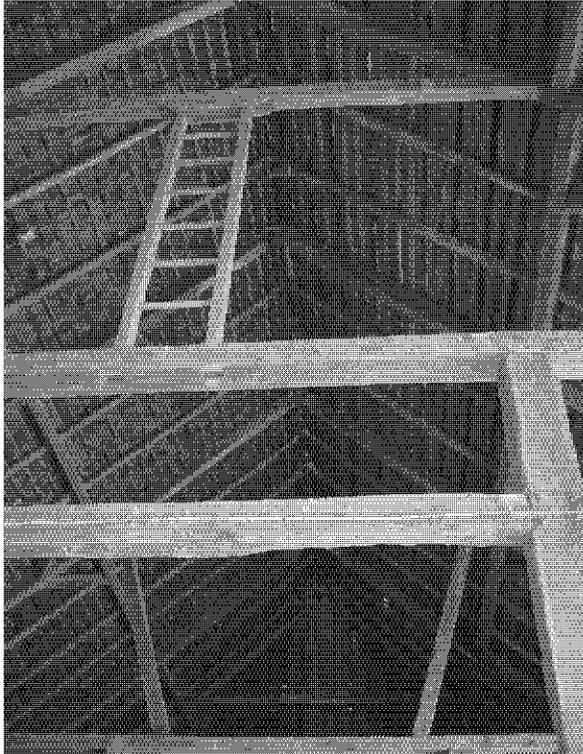
A8. Nallin Farm Bank Barn

County: Frederick

Location: Fort Detrick

Date: 1795

Exterior walls are stone but the interior structure consists of four timber frame braced king post bents. The tie beam runs from end post to end post at the height of the eave on the ramp side and the girt running between posts at the height of the eave on the forebay side (lower).



A9(i) Smith-Reensburg Barn

County: Frederick

Location: 7604 Marker Road

Date: 1825-50

Principle rafters braced are braced at purlins. Bents have two interior posts that rise full to the tie beam at the height of the eave and girts running between interior posts as well as the interior posts and the exterior wall framing. Queen posts are not braced. (photo: Virginia Price)



A9(ii) Smith-Reensburg Barn detail

Double pegged and shouldered mortise and tenon connection of girts to post with marriage marks. (Photo: Virginia Price)



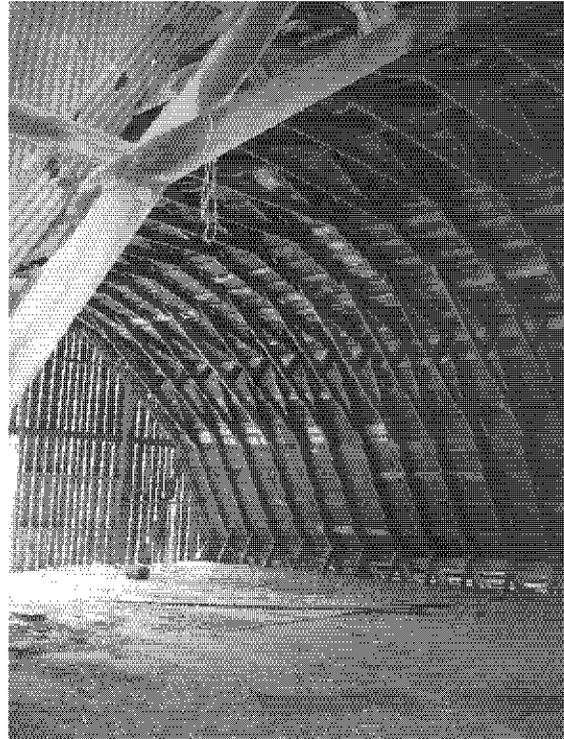
A10. Rose Hill Dairy Barn

County: Frederick

Location: Rose Hill Farm Museum

Date: ca. 1910-30

Scissor truss framing of gambrel roof. One member is braced to support the purlin at the secondary ridge while the other rises to the primary ridge. The rafters are joined by collar ties just below primary ridge.



A11. A. Poffenberger Barn

County: Washington

Location: Antietam National Battlefield

Rafters are braced at the sill and joined by a truss connection at the secondary ridge. The rafters are connected to a ridge plate at the peak and are connected by collar ties.

APPENDIX B: CATALOG

This appendix includes all barns photographed during the course of this study that were not included in the main body of the report. It is organized by types within each county, and grouped at the end are all the barns for which the specific type could not be determined due to extensive alterations or minimal access to the structure. The structures are identified by name and address whenever possible.

FREDERICK COUNTY:

A2. Asymmetrical gable/open forebay (stone)



Thomas Link Barn, Stauffer Road

A4. Asymmetrical gable/open forebay (timber)



West side of Old Frederick Road north of
Eaton Road

B1: Asymmetrical gable/closed forebay (stone)



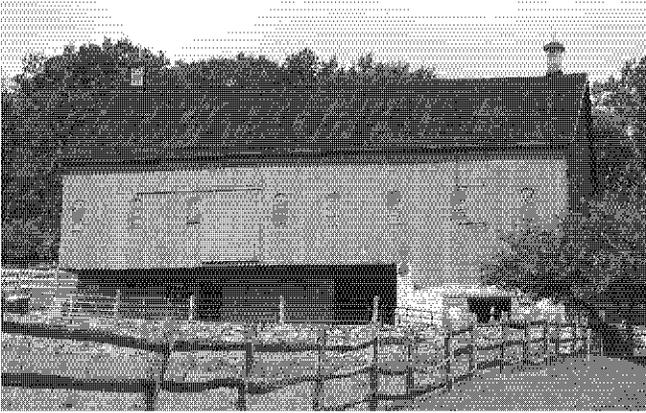
West side of Green Valley Road north of
New London Road



Meadowlark Farm, south side of Stauffer
Road

C1. Symmetrical gable/closed forebay (timber)

5630 Ijamsville Road



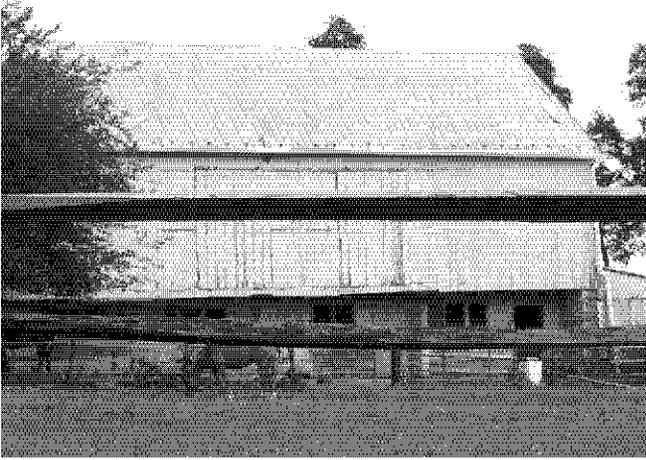
7010 Mountaindale Road



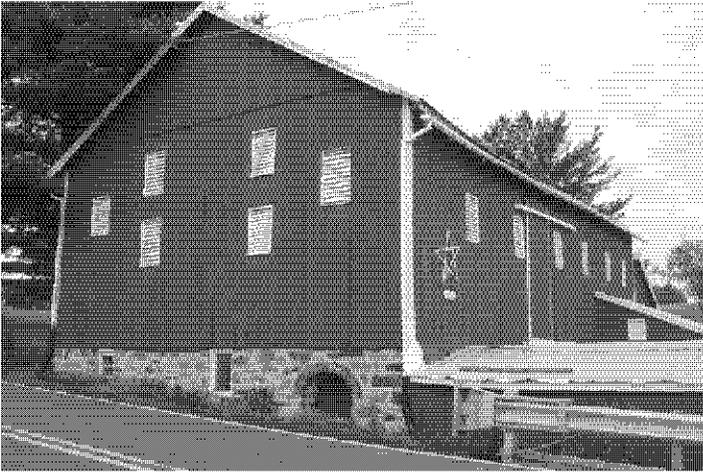
10030 Gas House Pike



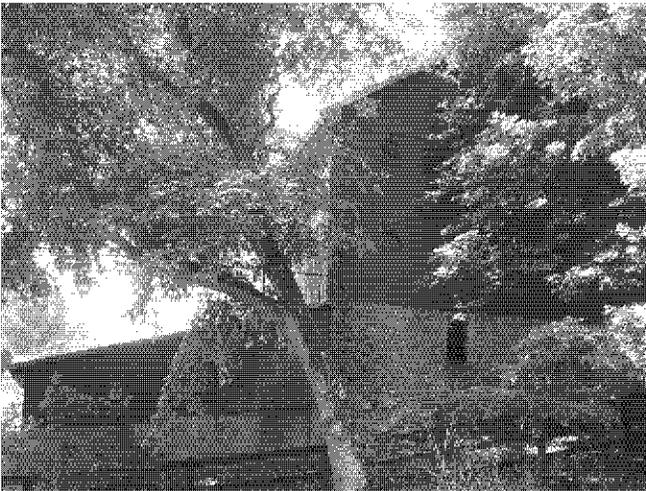
10300 Gas House Pike

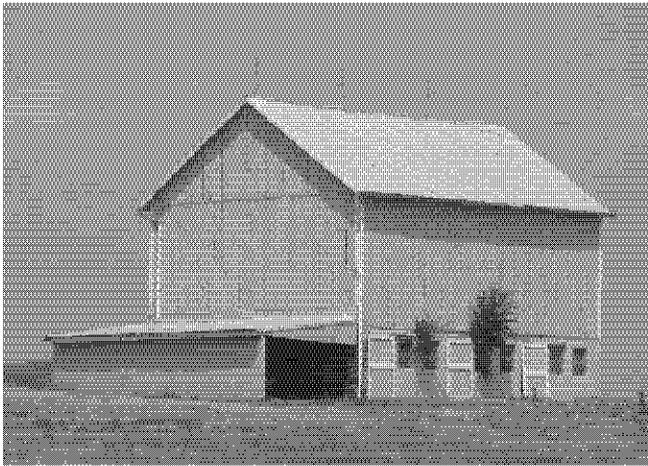


11310 Green Valley Road (MD 75)



12109 Glissans Mill Road





West side of McKaig Road one-half mile
north of Gas House Pike



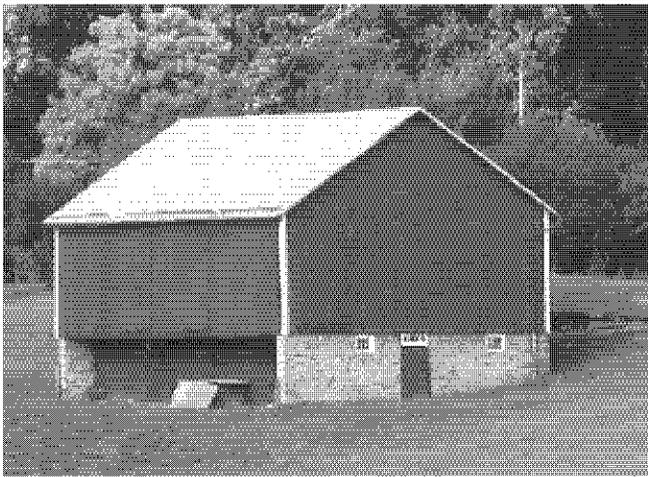
Fountain School Road



John N. Clay Farmstead, 4105 Bill Moxley
Road, ca. 1896-1900



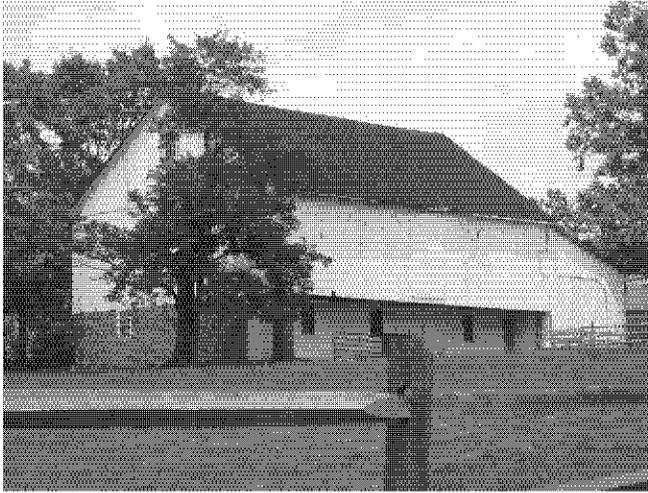
Near intersection of Flint Hill Road and
Fingerboard Road



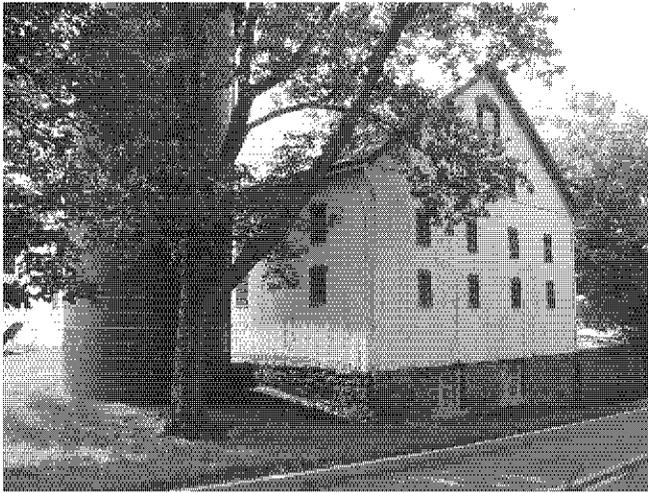
Park Mills Road and Peters Road



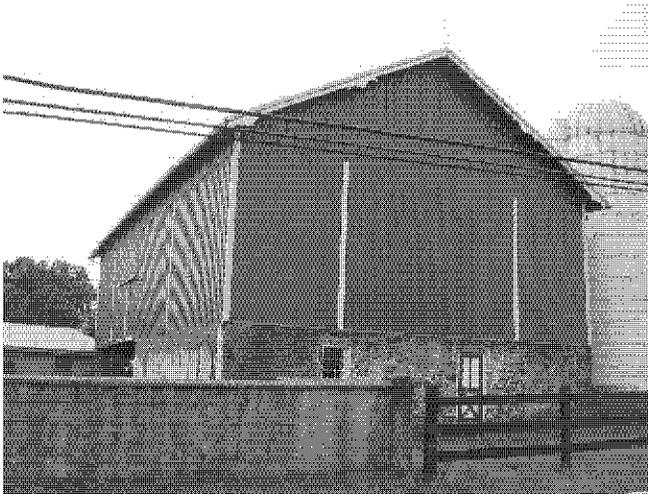
Simpsons Mill Road and Keymar Road



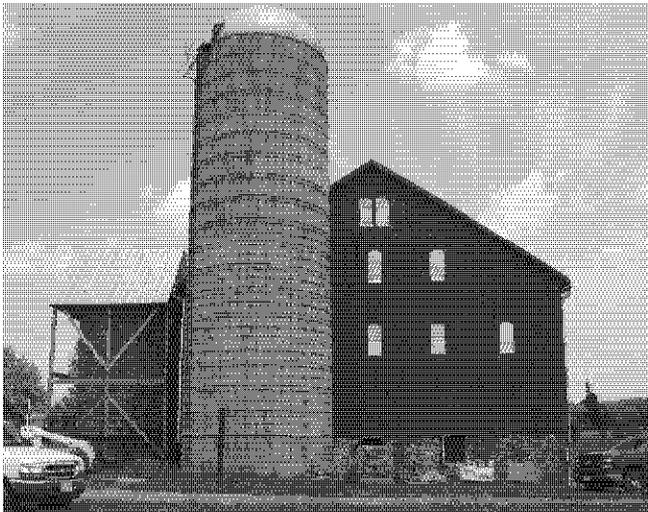
Utica Road



Haugh's Church Road and Detour Road



Rocky Ridge and Old Frederick Road

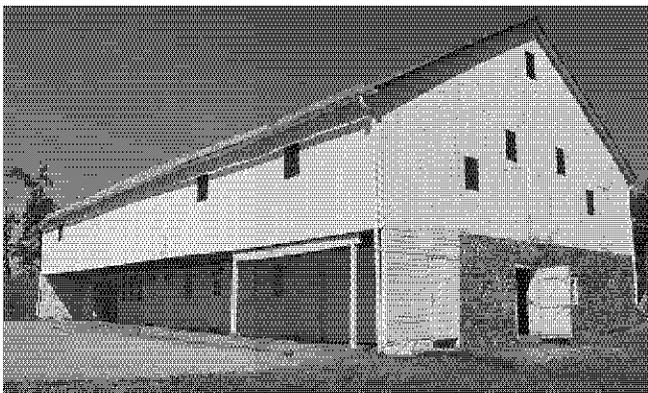


Thomas Farm, Monocacy National
Battlefield, ca.1890-1920



Rose Hill Manor Bank Barn, Rose Hill
Manor Park

Note: Not original to property



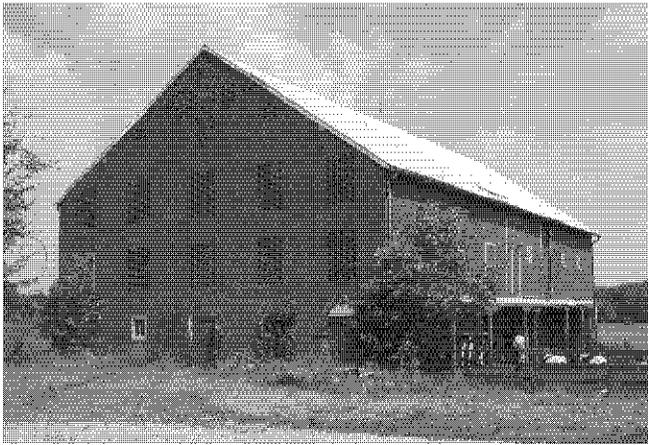
Snook Farm Barn, Utica District Park,
ca.1840-50

C2. Symmetrical gable/closed forebay (stone)



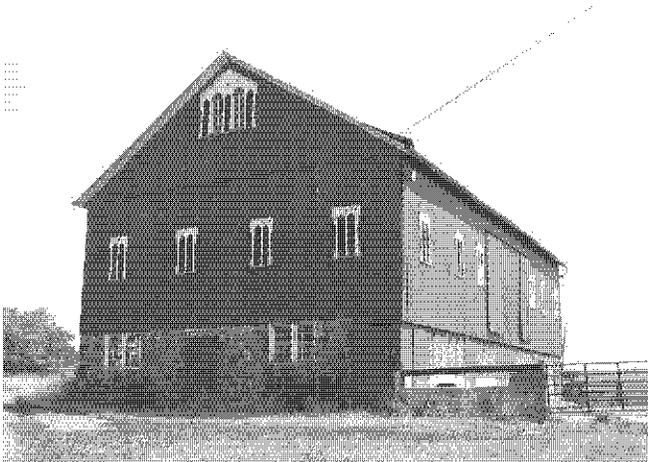
Zimmerman Barn, North side of Stauffer Road

C3. Symmetrical gable/closed forebay (brick)



Taneytown Pike (MD 140) at Bridgeport Road

F: Symmetrical gable/open forebay



Intersection of Gregg Road and Keysville Road



Longs Mill Road



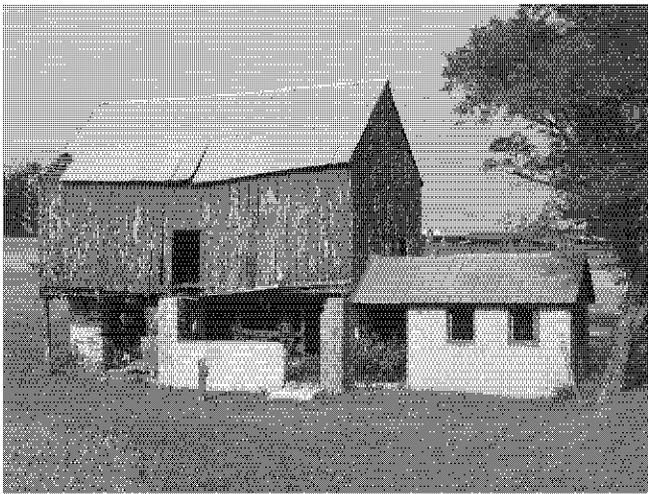
Longs Mill Road at Legore Bridge Road



Marble Quarry Road



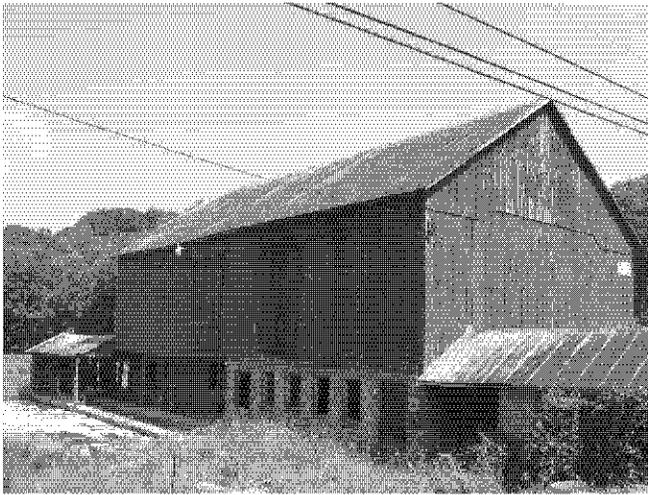
Sixes Road



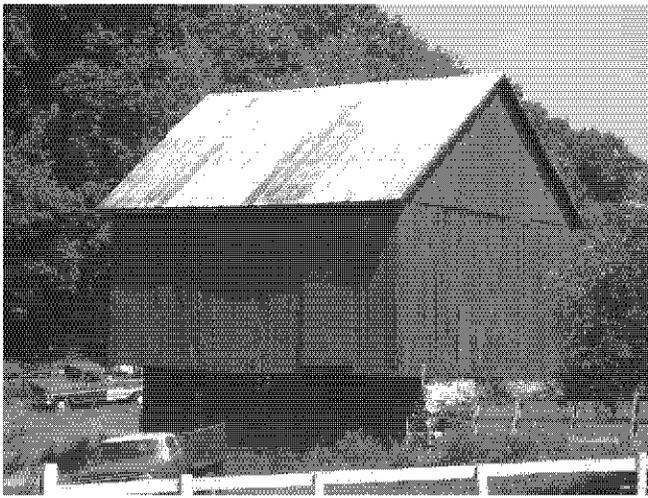
Fountain School Road east of Bessie
Clemson Road



11503 Gas House Pike



Woodville Road at Bottom Road



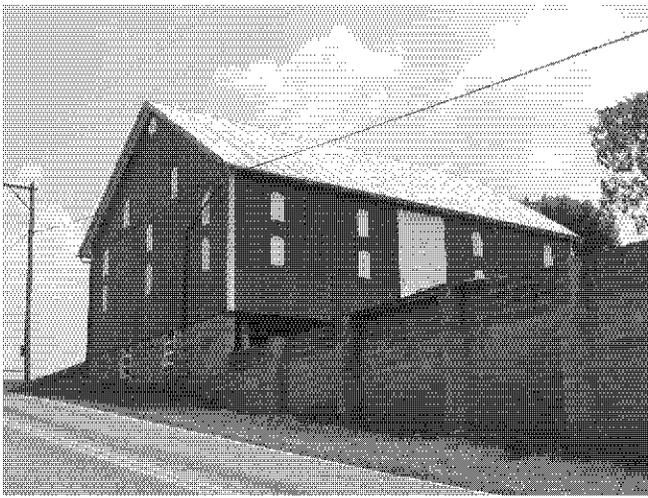
Woodville Road at Glissans Mill Road



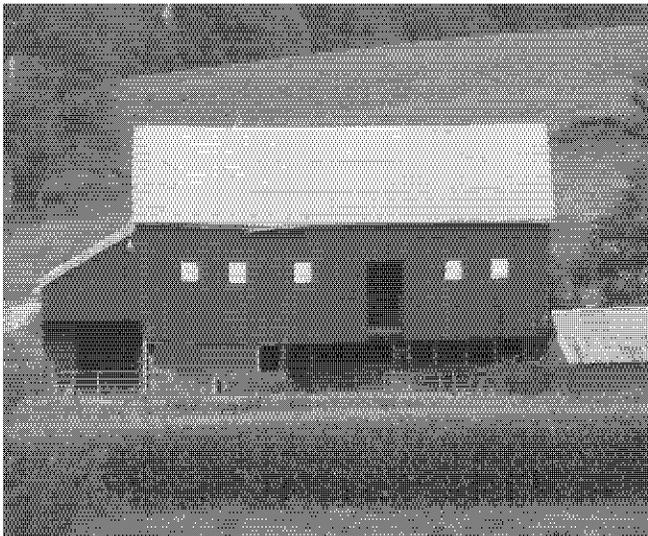
Rocky Springs Road south of Indian Springs Road



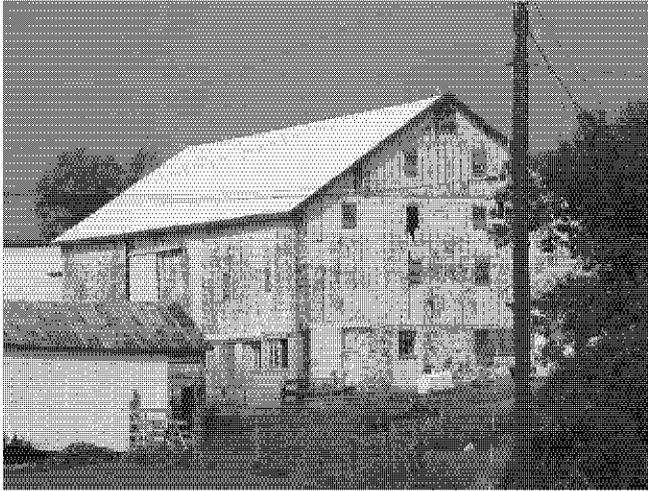
Hemp-Miller Farmstead, 4705 Utica Road,
ca. 1875



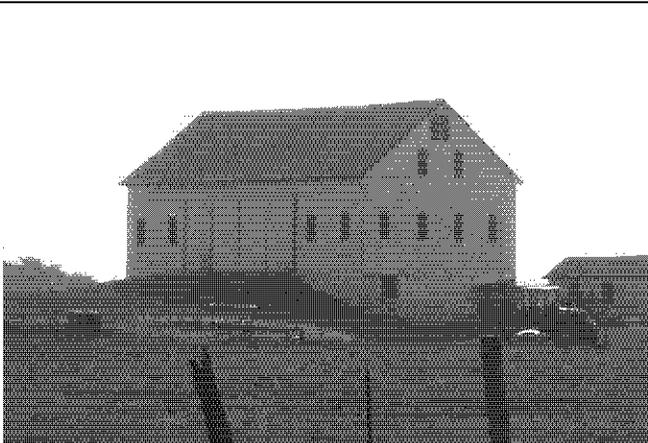
8223 Ramsberg Road



9801 Fountain School Road



Gaywinds Farm on Keymar Road

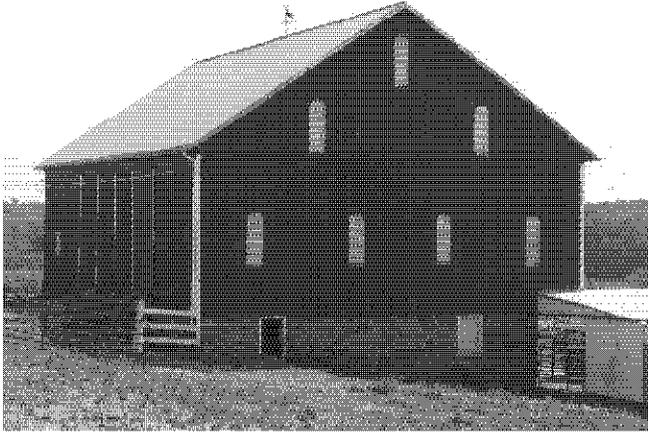


East side of Ballenger Creek Pike,
Frederick



Creekside Farm, Keymar Road and
Woodsboro Pike

Deer Run Farm, Sixes Road

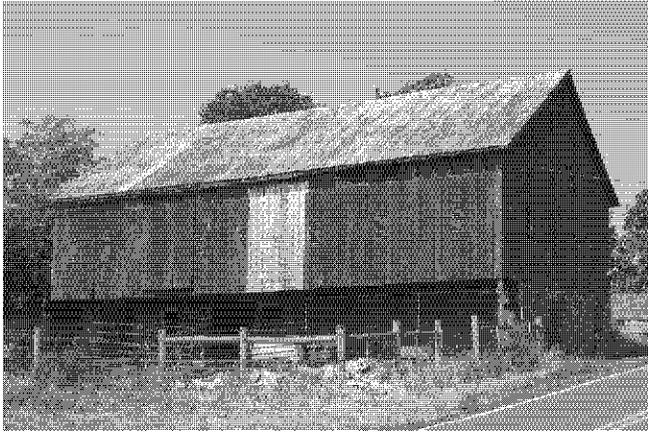


Henry Zimmerman Farm, Ballenger Creek
Pike

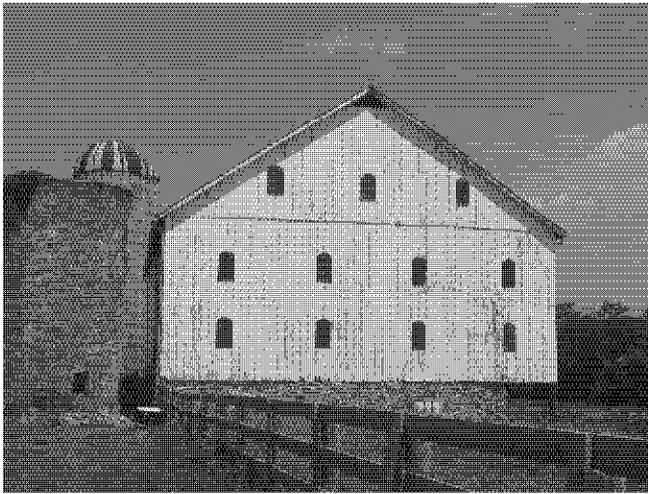


Eaton Road

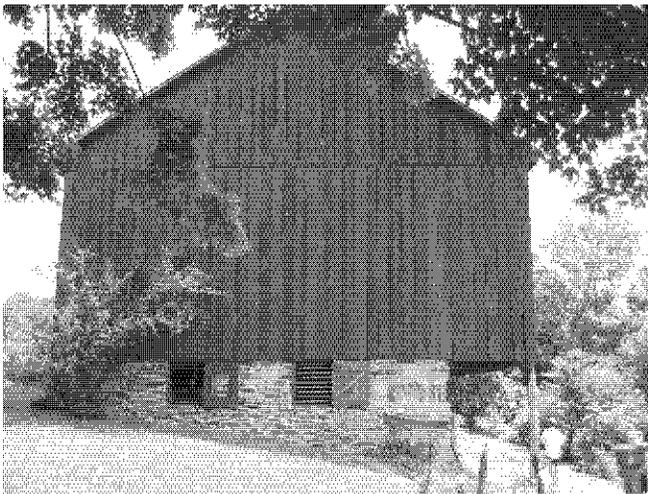




Sixes Road



Baker Farm, Monocacy, ca. 1850-1900



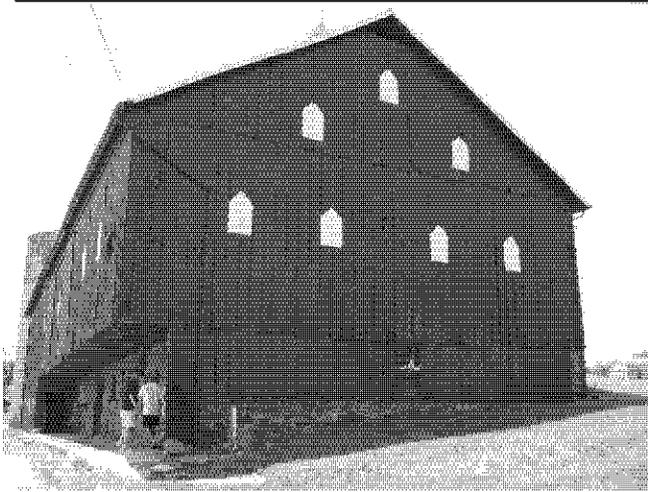
Ramshorn Farm, 9702 Mt. Tabor Road

(photo: Virginia Price)



Stone Manor, 5820 Carroll Boyer Road

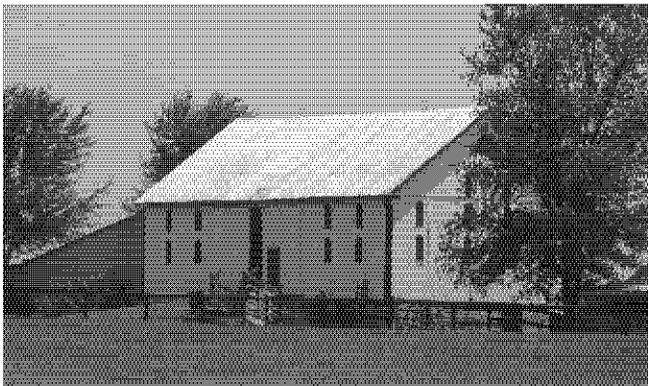
(photo: Virginia Price)



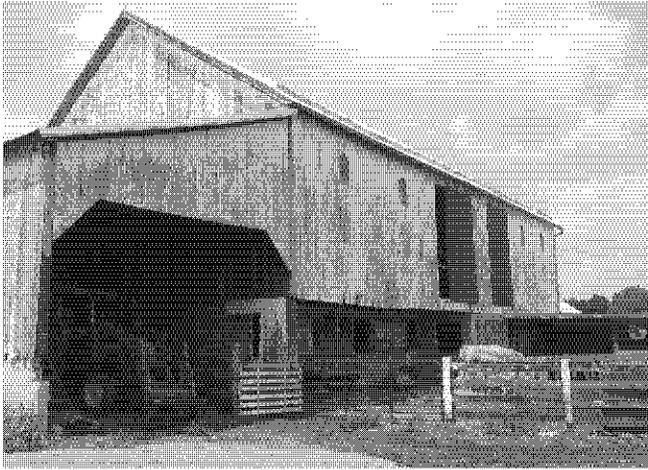
Well-Intended Farm, 6643 Burkittsville Road

(photo: Virginia Price)

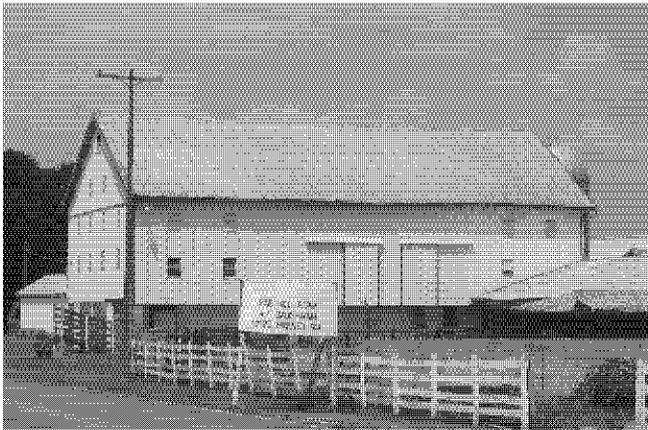
Symmetrical gable/forebay closure undetermined



8201 Yellow Springs Road



8724 Ramsburg Road



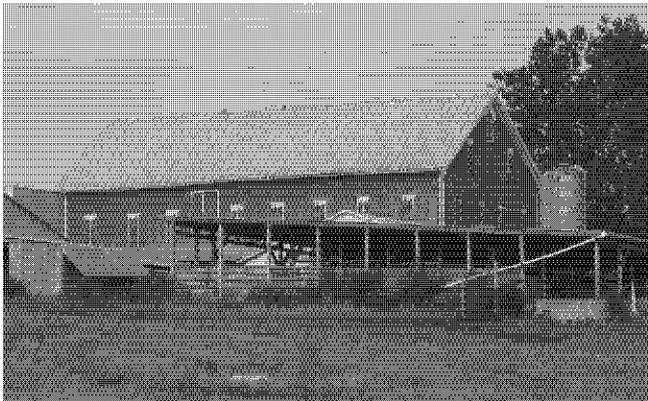
12120 Harney Road



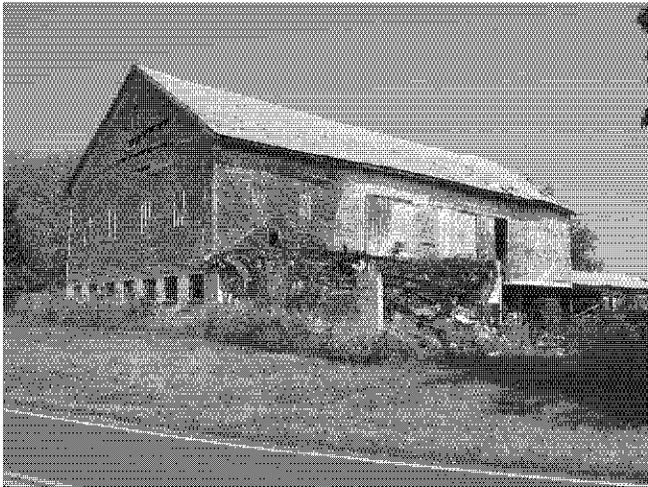
11401 Keymar Road



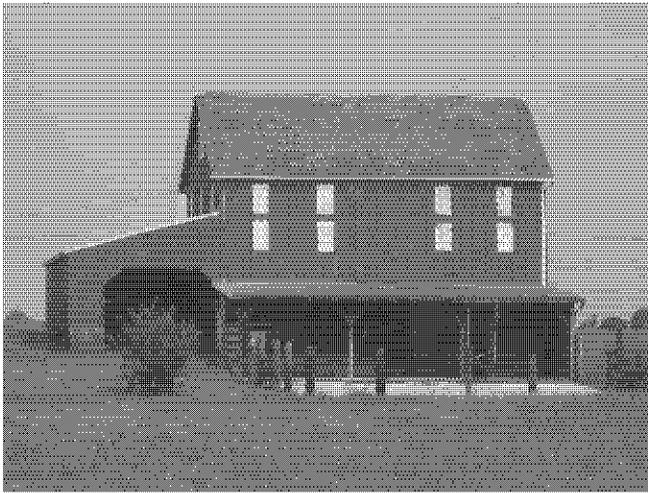
Auburn Road



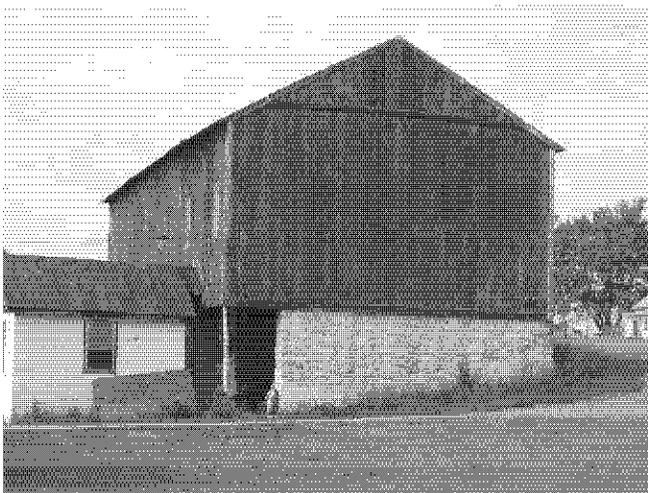
Fountain School Road at Bessie Clemson
Road



Four Points Road west of Sixes Bridge
Road



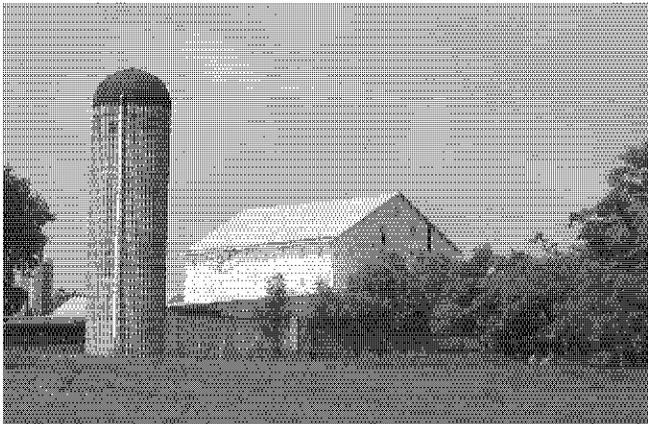
Good Intent Road at Keymar Road (#1)



Good Intent Road at Keymar Road (#2)



Haugh's Church Road at Woodsboro Pike



Glissans Mill Road



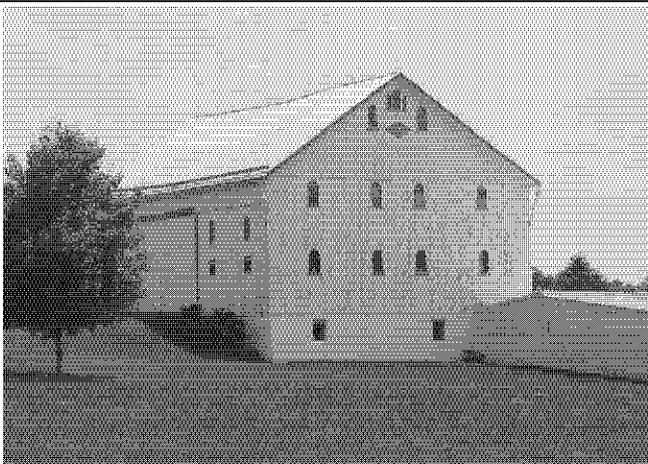
Old Frederick Road at Eaton Road



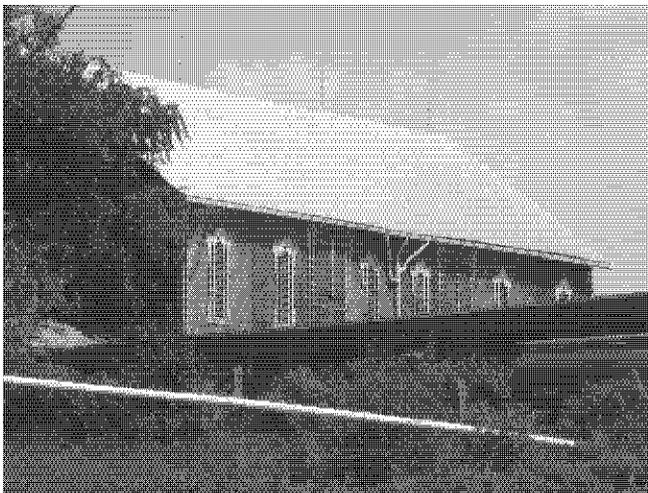
Bill Moxley Road south of Old National
Pike



Glissans Mill Road



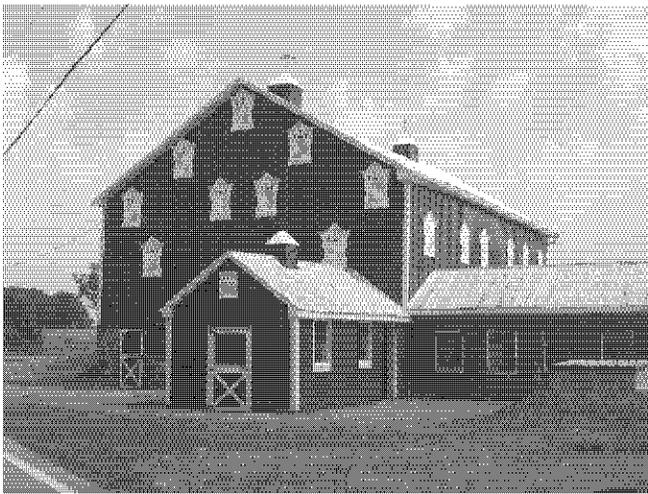
8003 Ramsburg Road, R. Wachter
Farmstead (Utica Pines Tree Farm) 1882



Riverside Farm and Market, Sixes Road



Rocky Ridge Road and Myers Road



Sixes Road and Simmons Road

G: Rear extension



10069 McKinstry's Mill Road

L1: Gambrel roof dairy barn



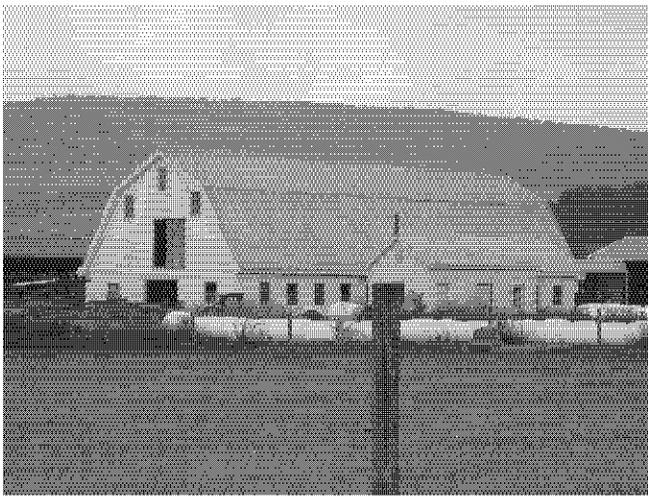
7010 Mountaindale Road



4935 Ijamsville Road



McKaig Road one-half mile north of Gas House Pike



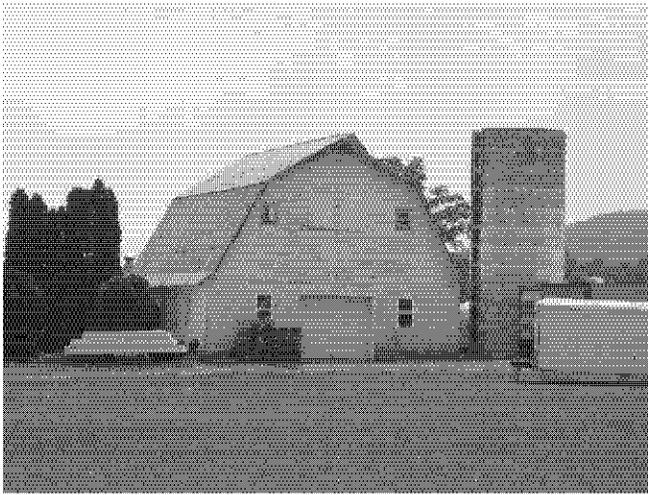
Green Spring Farm 12460 Hessong Bridge Road



Hessong Bridge Road and Jintown Road



Tress-Vale Farm 12461 Glissans Mill Road



Putnam Road Dairy Barn



Mountaindale Road west of US 15



Flint Hill Road and Fingerboard Road



Yellow Springs Road south of Christopher
Crossing



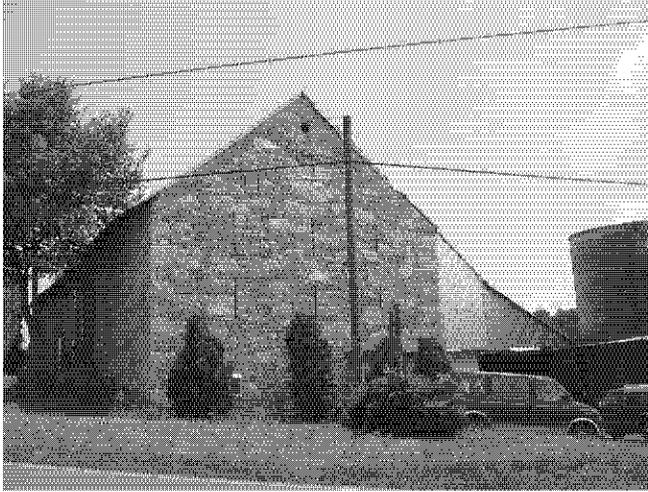
Nallin Farm Dairy Barn, Opossumtown
Pike, Fort Detrick



10602 McKinstry's Mill Road

WASHINGTON COUNTY:

A2. Asymmetrical gable/open forebay (stone)



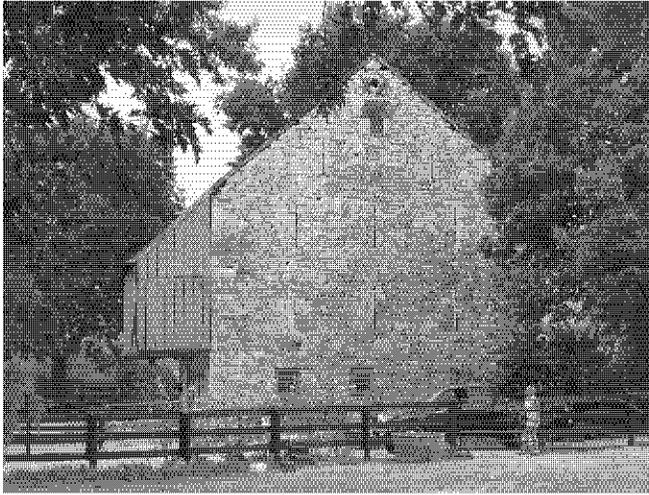
Felfoot Farm, Dogstreet Road at Mount
Hebron Road, late eighteenth century



Shepherdstown Pike



Shank Farm, Mansfield Road



Spielman Road



Leiters Mill Road

Note: Rear extension appears to be an addition

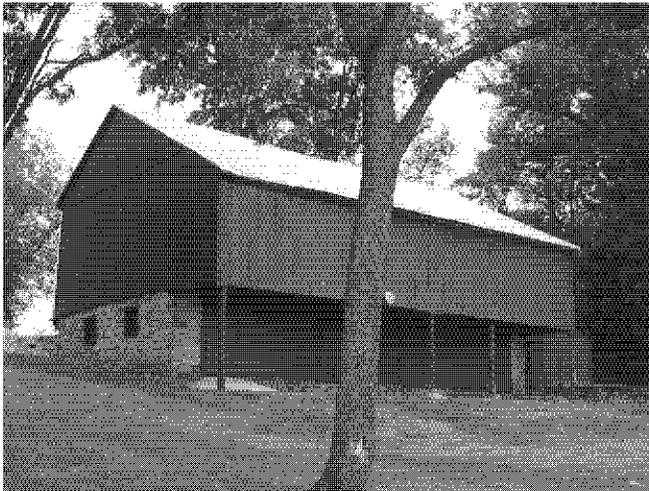


East side of Mapleville Road (MD 66)
south of Chewsville Road



Mansfield Road

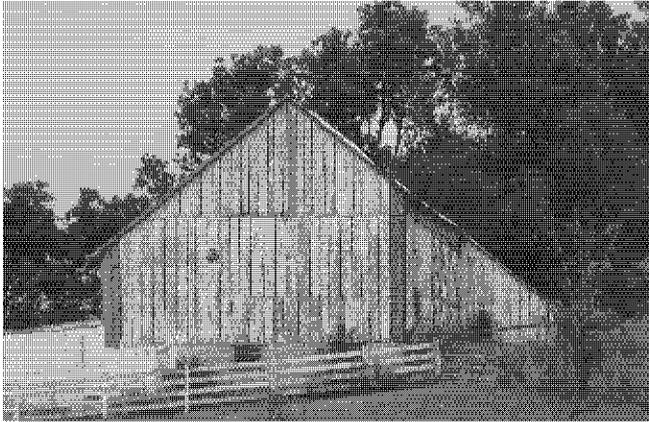
A4. Asymmetrical gable/open forebay (timber)



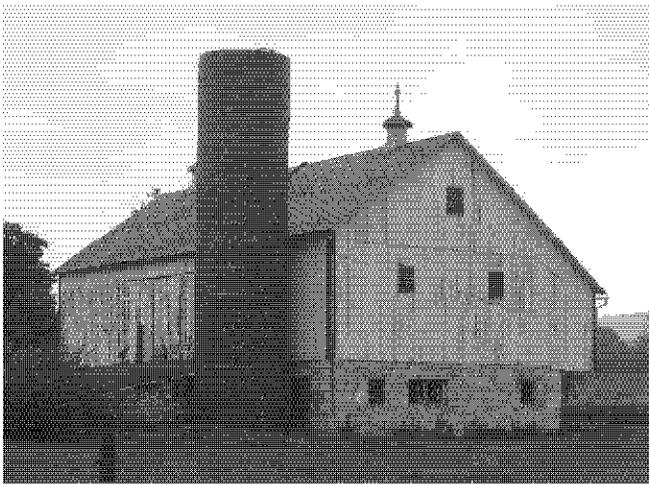
20912 Mousetown Road



Mount Carmel Church Road at Dogstreet
Road



Spielman Road



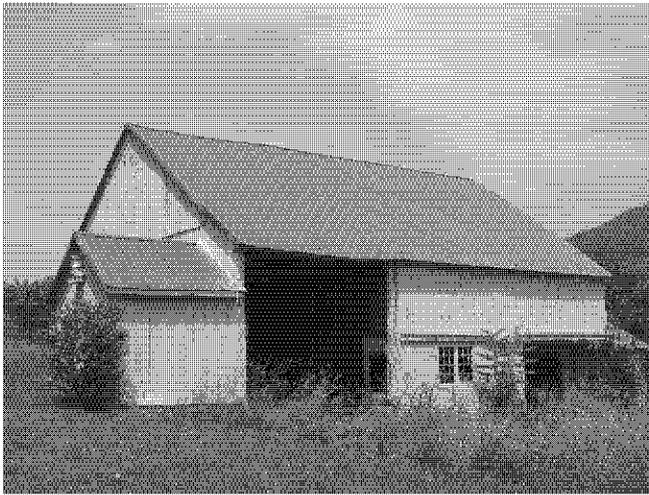
The Maples, west side Mapleville Road
(MD 66) north of Chewsville Road

Asymmetrical gable (forebay closure undetermined)

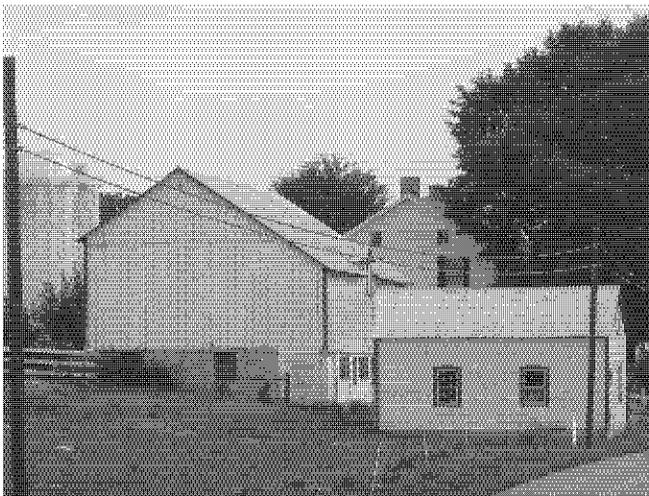


Broadfording Road and Blairs Valley Road

Blairs Valley Road at Draper Road



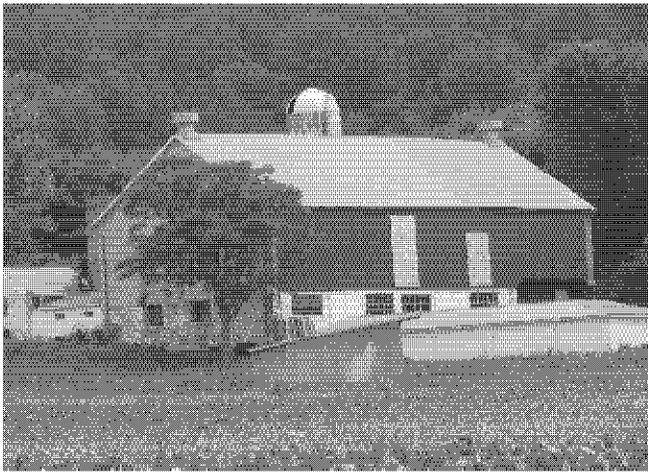
Millers Church Road



C1. Symmetrical gable/closed forebay (timber)

Hogmaw Road just off Main Street in
Rorhersville

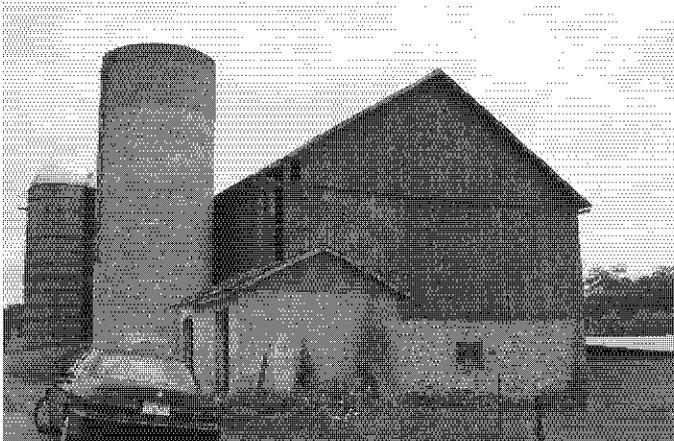




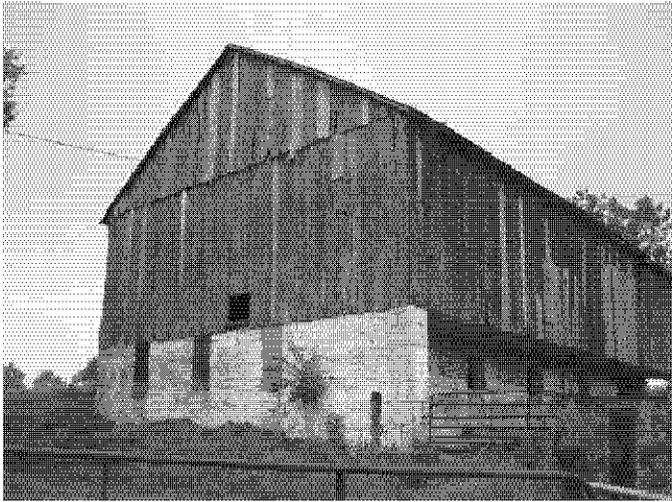
Locust Grove Road



Mondell Road

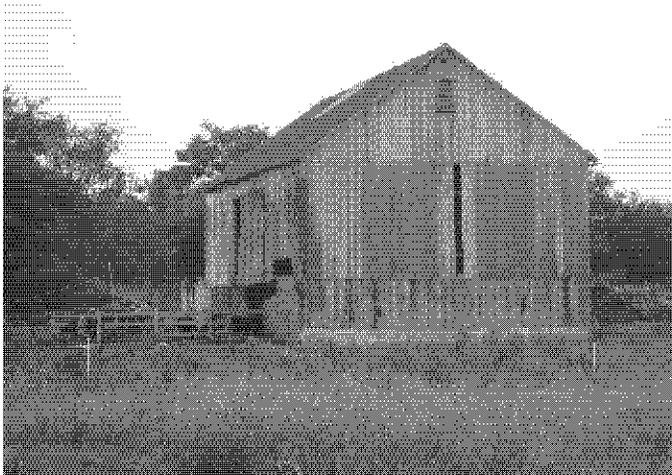


Reno Monument Road



Joseph Poffenberger Barn, Antietam
National Battlefield

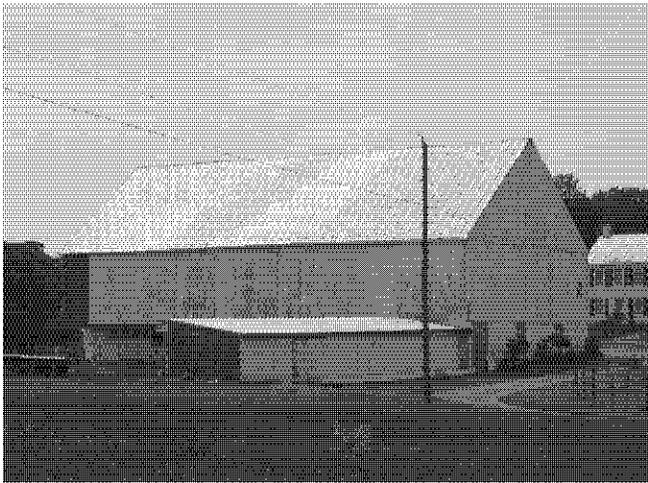
17600 Broadfording Road



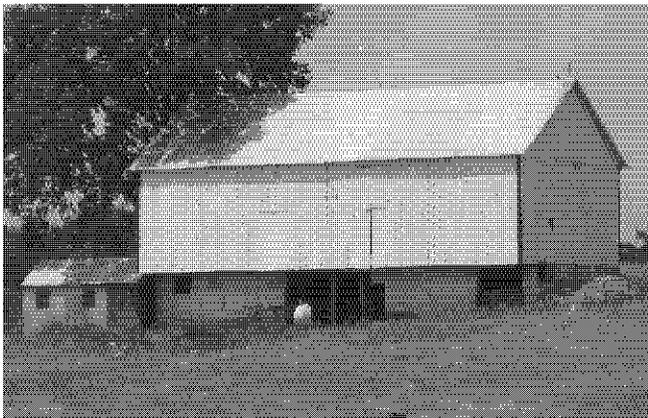
F1: Symmetrical gable/open forebay (timber)

20023 Dogstreet Road





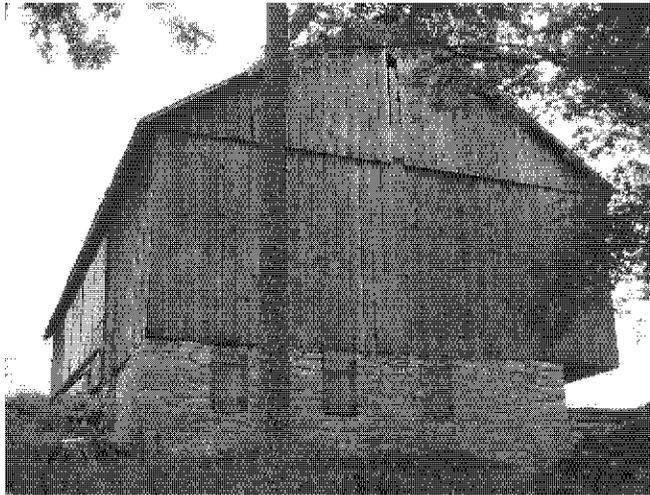
20101 Marble Quarry Road



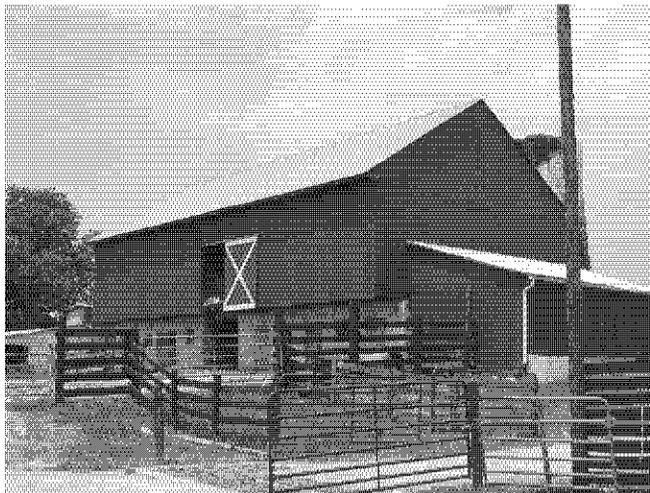
20130 Dogstreet Road



Route 67 at Mount Carmel Church Road



Jordan Road



Reno Monument Road



20822 Millers Church Road

Symmetrical gable/forebay closure undetermined



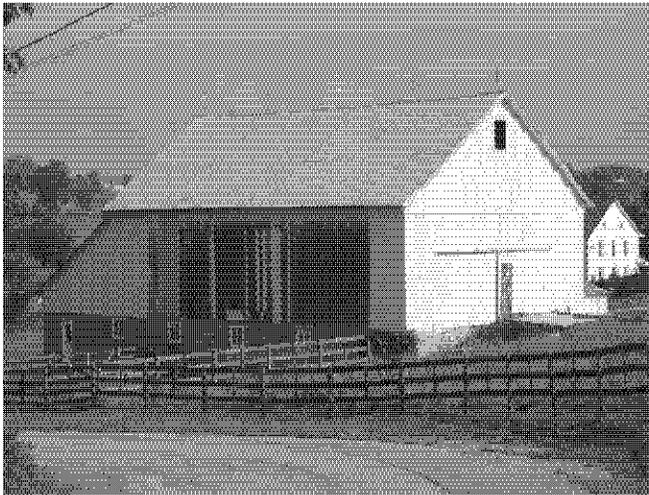
6908 Monroe Road



13555 Poplar Grove Road



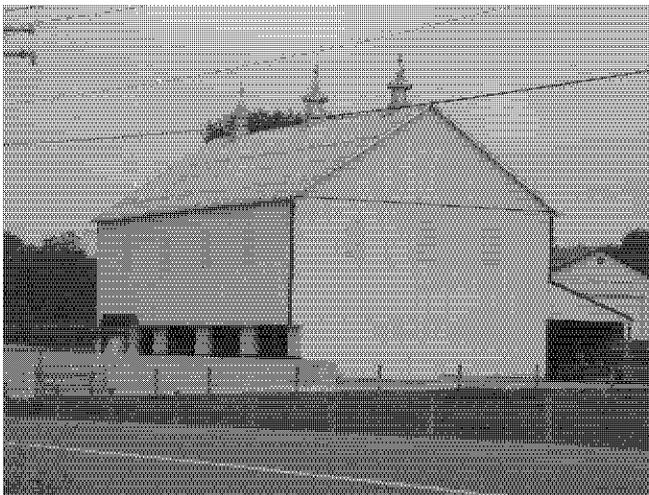
17026 Broadfording Road



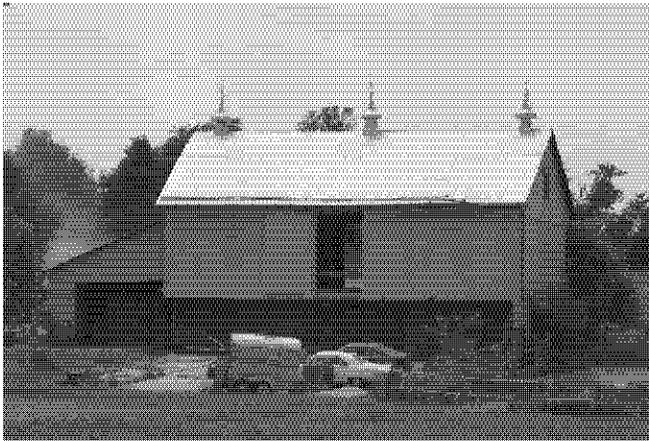
Kretsinger Road



Dam No. 5 Road at Gruber Road



MD 60 at Clopper Road



MD 144 at Gilardi Road

G: Rear extension



5500 Mt. Carmel Church Road



13448 Broadfording Road

Ott's Horticultural Center on Twin Springs
Road



MD 40 and Spickler Road



13644 Broadfording Road

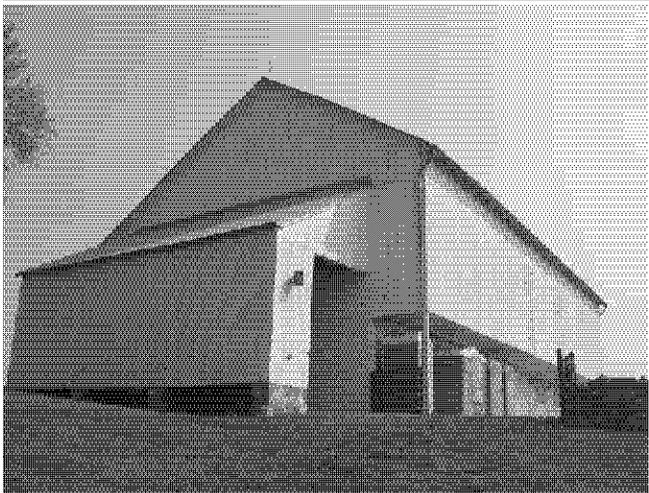




St. Paul Road



Misty Meadow Road



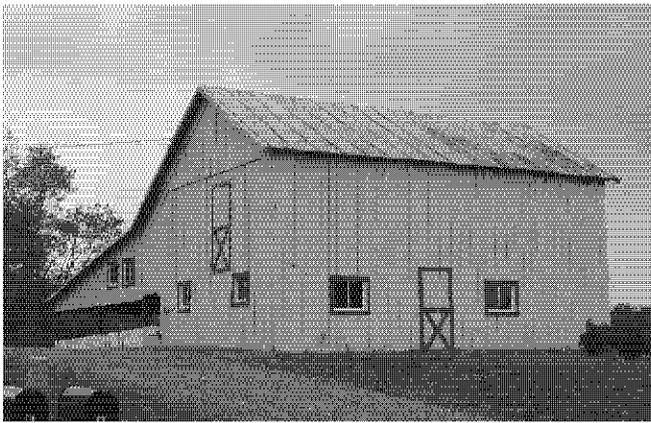
Mumma Barn, Antietam National
Battlefield, ca. 1870

Roulette Farm Barn, ca.1830

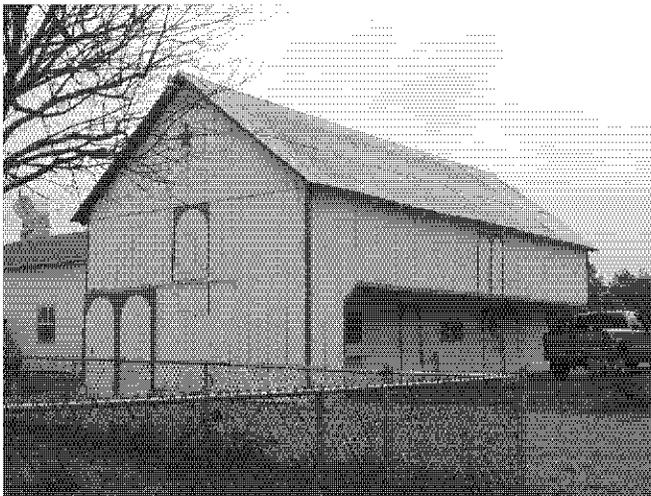


J1: Double crib forebay barn

Broadfording Road and Creekview Road



17600 Broadfording Road



J2: Gable three-bay barn

17743 Broadfording Road



L1: Gambrel roof dairy barn (concrete block)

Yarrowsburg Road and MD 67





Mount Carmel Church Road at Dogstreet
Road



Reno Monument Road

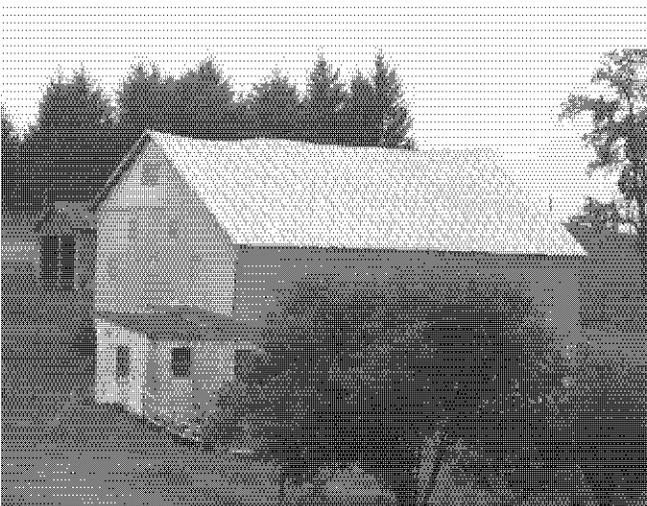
CARROLL COUNTY:

A4: Asymmetrical gable/open forebay (timber)



Pipe Creek Road

Asymmetrical gable/forebay closure undetermined



Uniontown Road at Reams Court

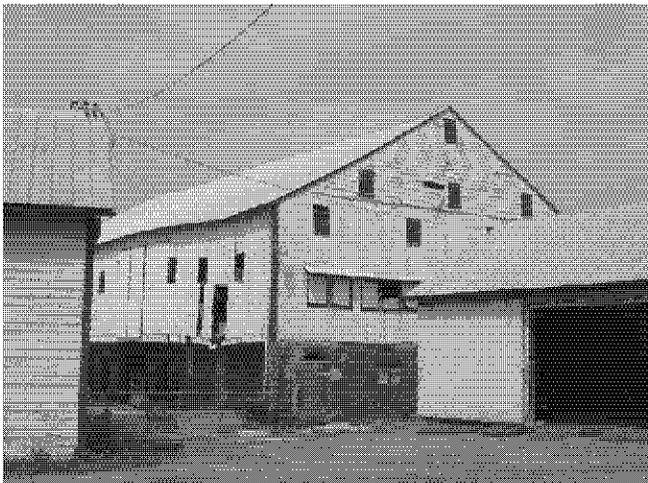


South side of Uniontown Road

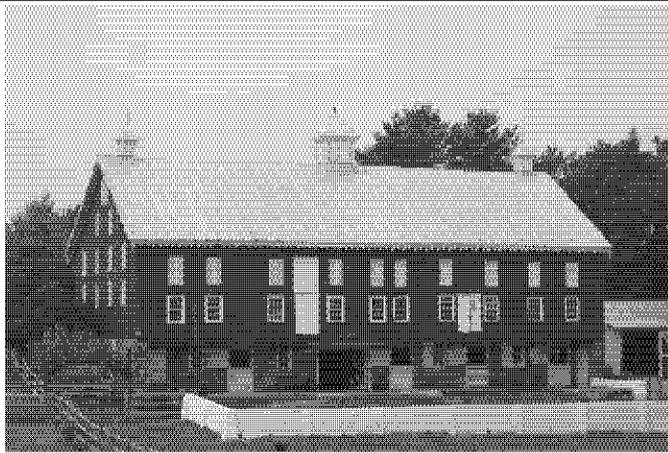
C1. Symmetrical gable/closed forebay (timber)



Salem Bottom Road and Bloom Road



3212 Harney Road



Bauer-Bachman Farmstead, Bachman's
Valley Road south of Bixler Church Road



Sams Creek Road

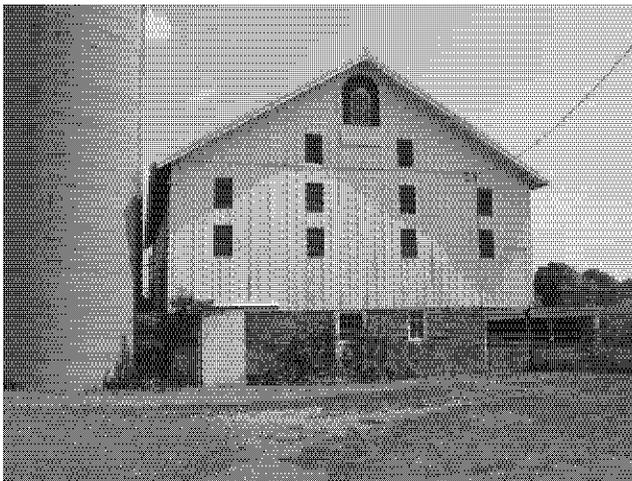
F: Symmetrical gable/open forebay



Mountview Farm, 3850 Bullfrog Road



3921 Bullfrog Road

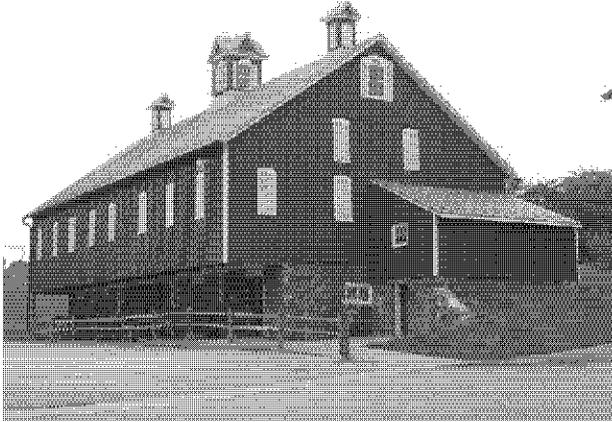


Taneytown Pike at Bullfrog Road



South side of Uniontown Road (across
from 2220 Uniontown)

Alms Barn, Carroll County Farm Museum,
ca. 1853

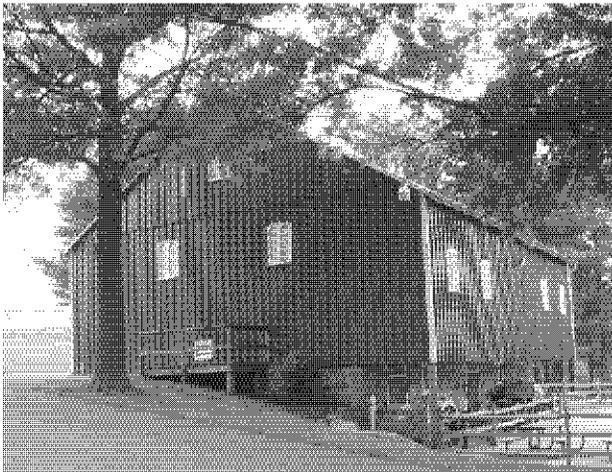


Merring Barn, Carroll County Farm
Museum, ca. 1847



Note: Not original to museum property

Stoner Nursery Bar, Carroll County Farm
Museum



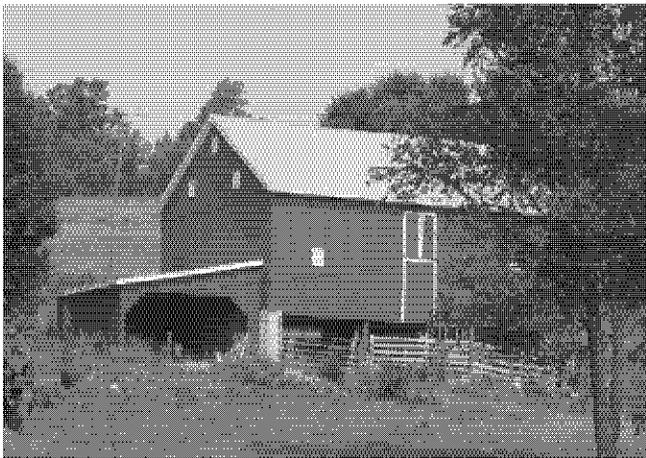
Note: Not original to museum property



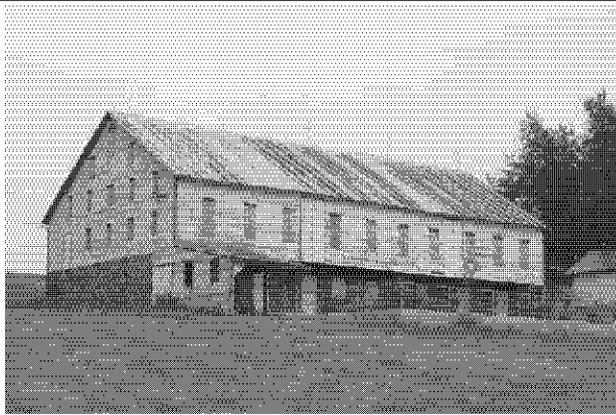
West side of London Bridge Road (across
from 3910 London Bridge Road)



North side of Baker Road



Old Washington Road across from Mueller
Road



Weaver-Myers Farm, 3261 Bixler Church
Road, ca.1840-60



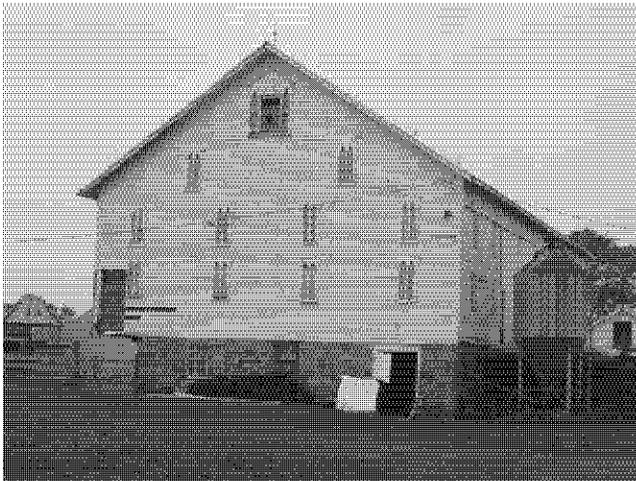
Salem Bottom Road between Old
Washington Road and Nicodemus Road
(#1)



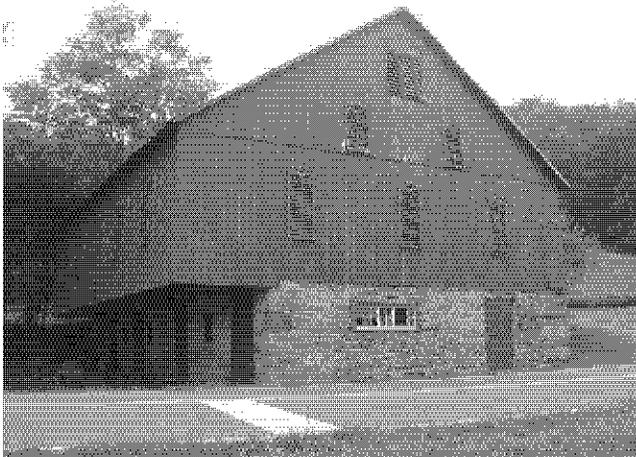
Salem Bottom Road between Old
Washington Road and Nicodemus Road
(#2)



Pipe Creek Road west of Clear Ridge Road



Teeter Road



Benjamin Bowser, Schalk Road No. 1 at
Kern Road, ca. 1873

Ruggles Road



1184 Silver Run Valley Road

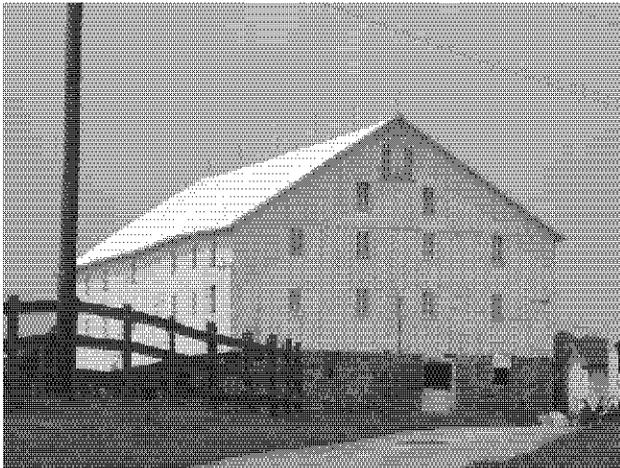


4111 Harney Road





4442 Geeting Road



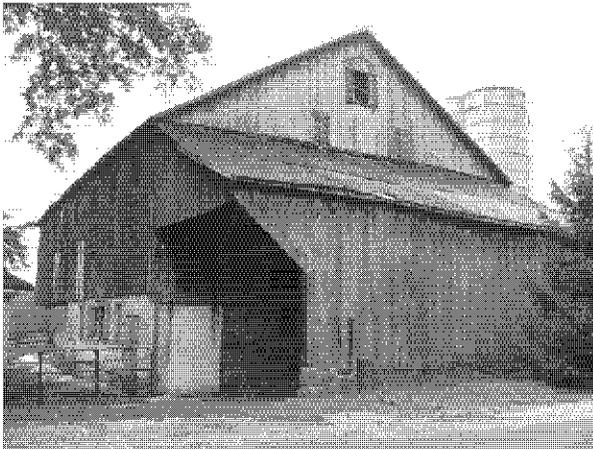
4600 Teeter Road



5040 Walnut Grove Road



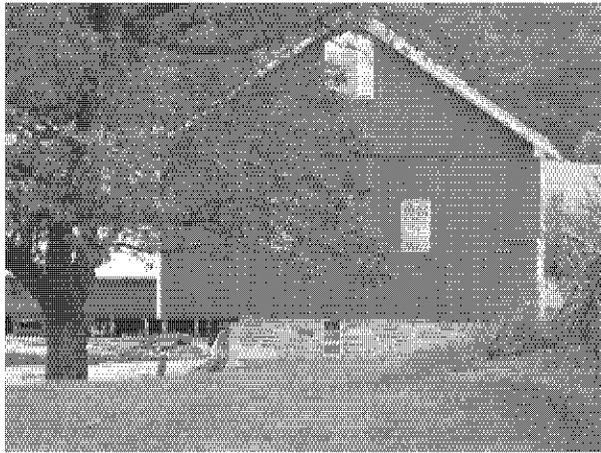
Cleveland Barnhart Farm, 5312 Geeting
Road, ca.1870-1920



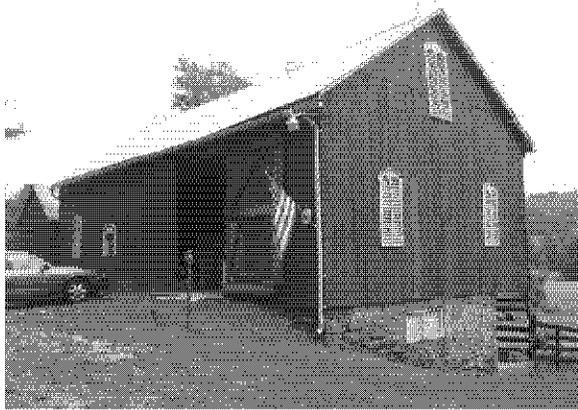
Arter's Mill Road



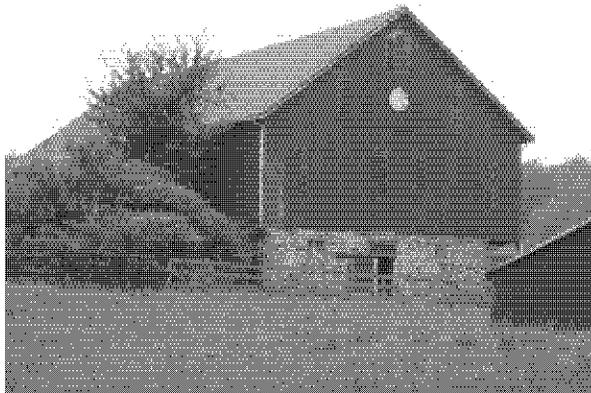
Geeting Road at Barnhart Road



Leppo Road east of Old Hanover Road



Schalk Road No. 1



Silver Valley Run Road



Stone Road east of Robert Arthur Road



Salem Bottom Road and Baker Road

Symmetrical gable/forebay closure undetermined

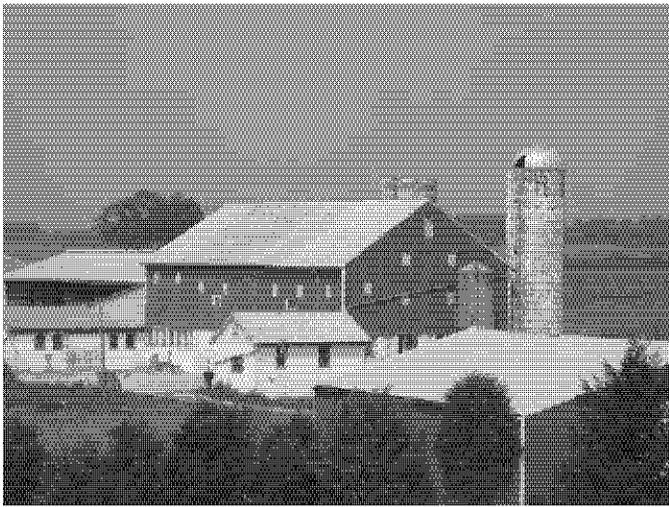


1470 McKinstry's Mill Road

1555 Otterdale Mill Road



Sycamore Valley Farm, 1808 Otterdale
Mill Road



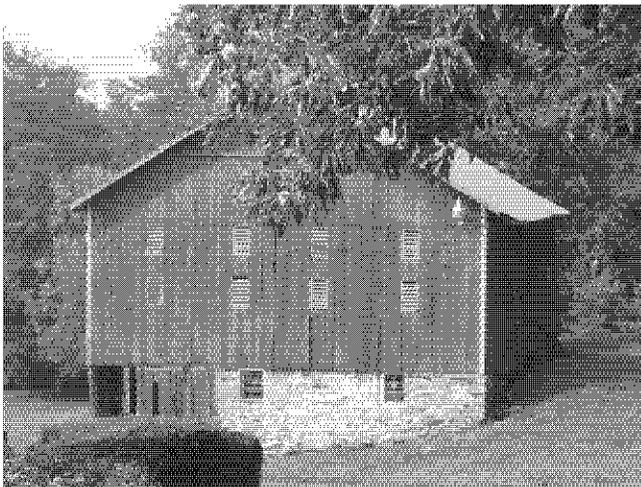
1915 Bachman's Valley Road



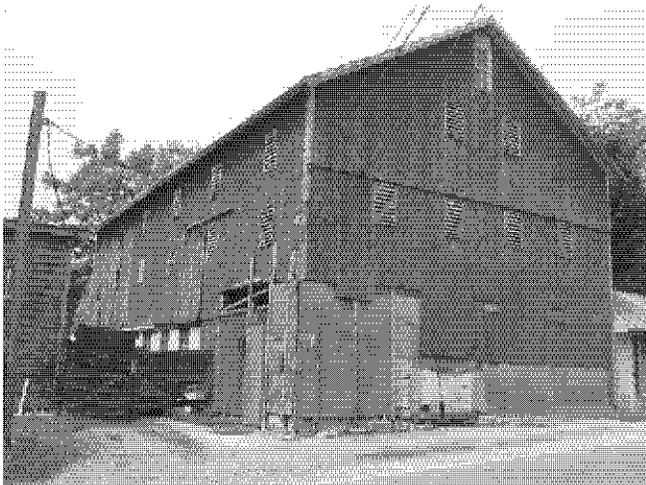
3515 Middleburg Road

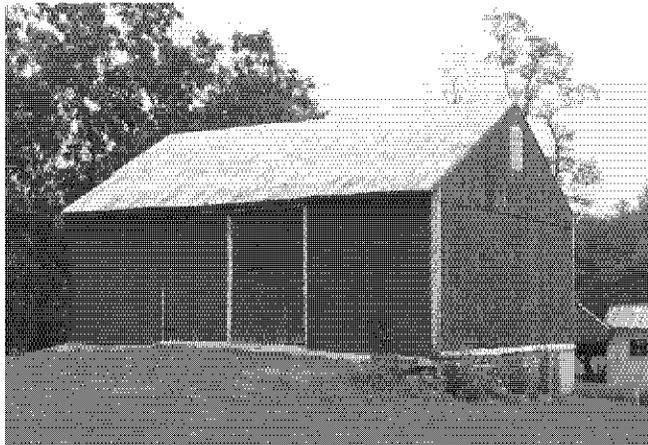


3965 Watson Lane



4835 Harney Road

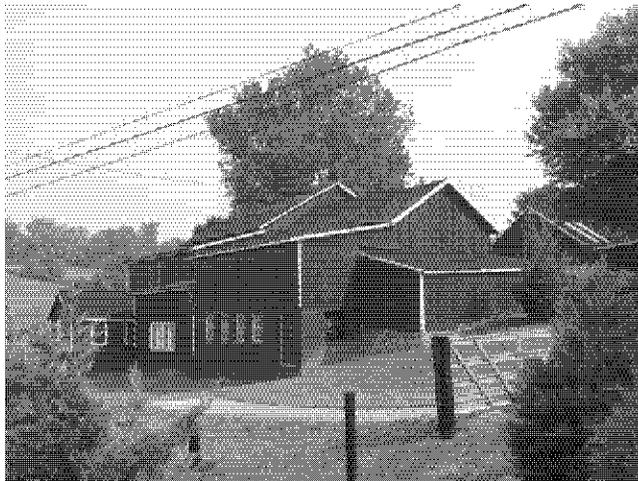




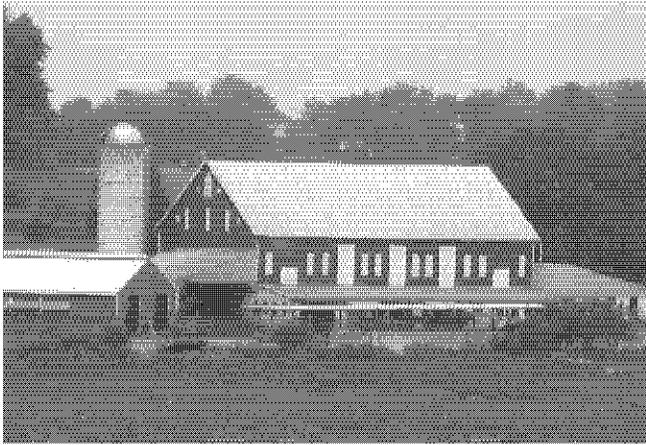
Alesia-Lineboro Road at Schalk Road No.
1



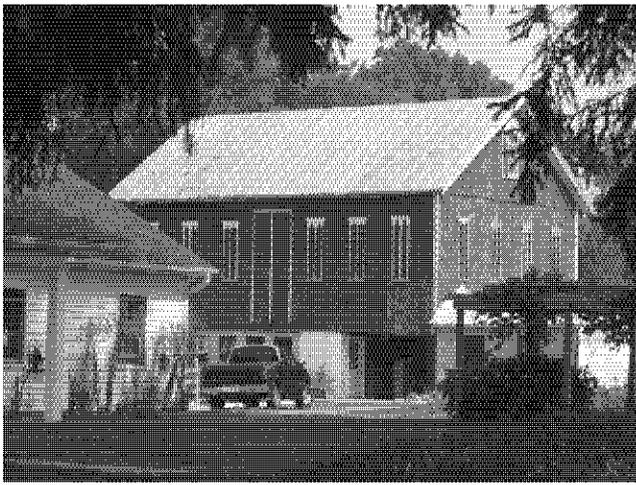
Arter's Mill Road at Stone Road



Green Valley Road at Stem Road



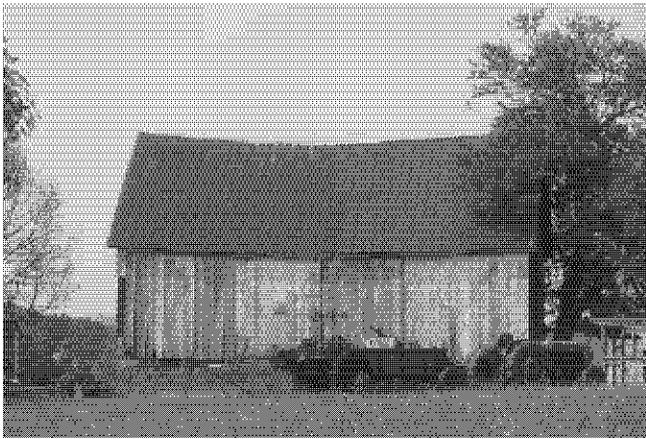
Leppo Road



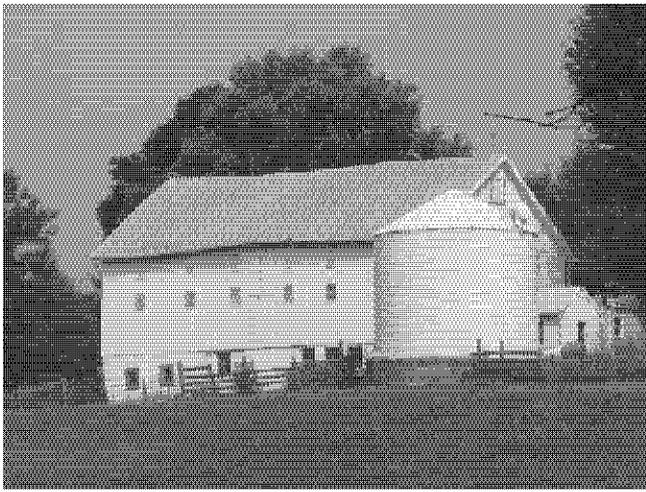
Middleburg Road



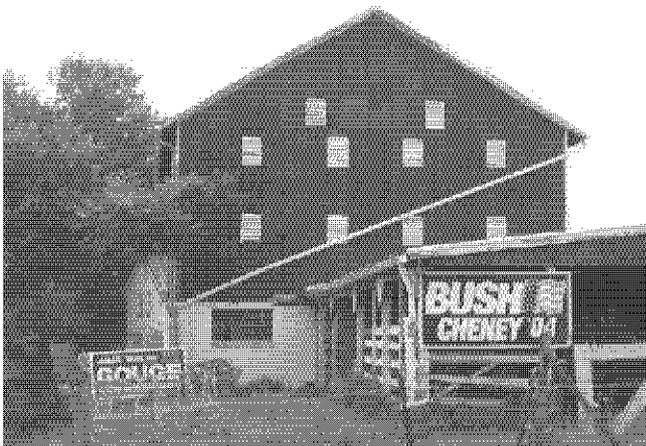
New Windsor Quarry



Nicodemus Road at Fieldcrest Drive



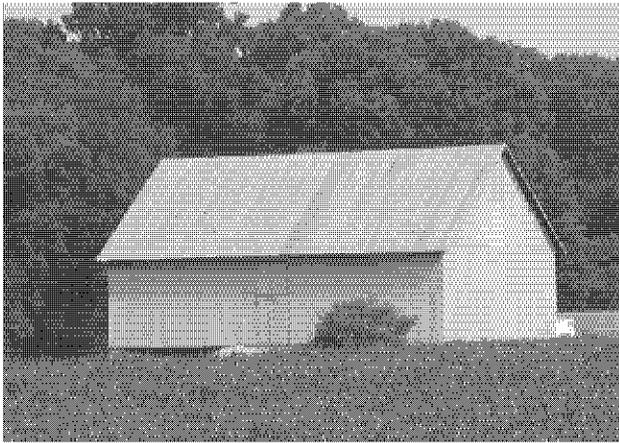
Old Washington Road



West side of Ridge Road (MD 27) south of
Westminster



Ripleyvale Farm, McKinstry's Mill Road

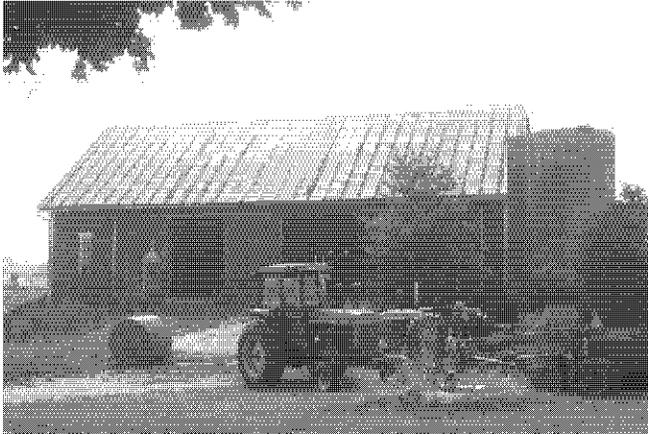


Salem Bottom Road between Old
Washington Road and Nicodemus Road
(#3)



Silver Valley Run Road at Turkeyfoot
Road

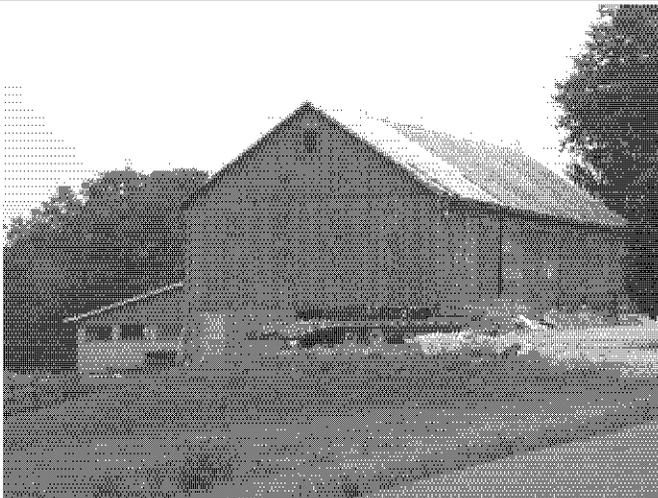
Starr Lane



Trevanion Road at Grant Drive



Turkeyfoot Road at Leppo Road



G: Rear extension



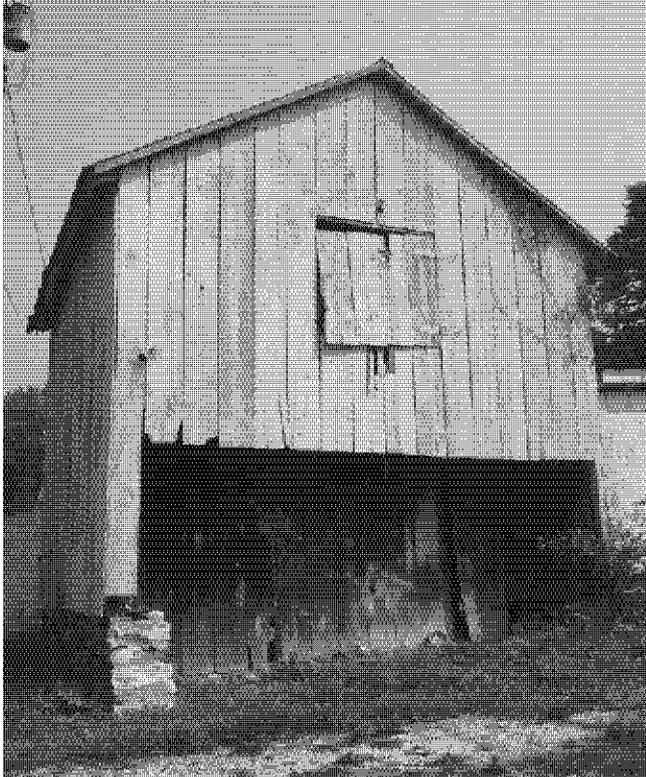
Just south of 4209 Sams Creek Road

H2: Single unit barn with forebay (asymmetrical)



Arter's Mill Road at Flickinger Road

H3: Single unit barn with forebay (symmetrical)



Priestland Road and Marble Quarry Road,
note forebay is on gable end



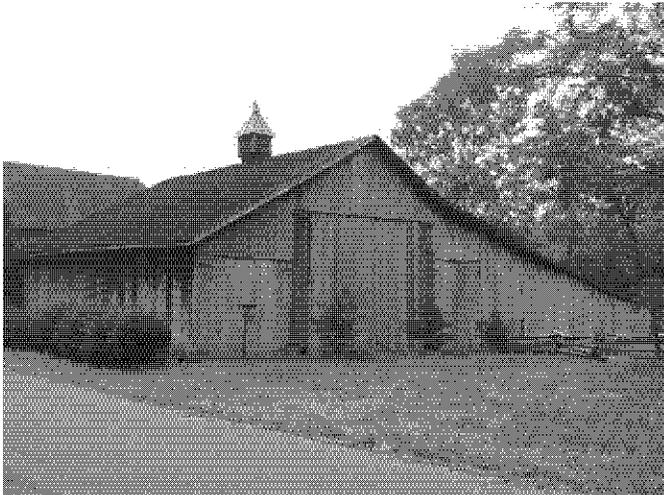
MD 27 south of Manchester

Note: same barn as tobacco ad

I1. Transverse crib barn (single slope)



1126 Silver Valley Run Road



Arter's Mill Farm Barn

I2. Transverse crib barn (two slopes)



Turkeyfoot Road at Leppo Road

J2: Gable three-bay barn

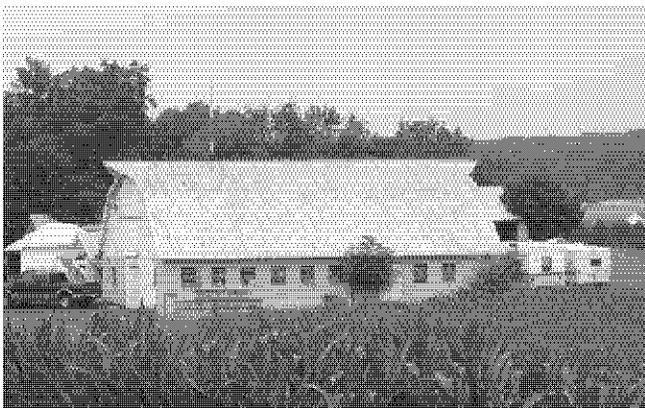


Hay barracks barn, Carroll County Farm
Museum, ca. 1850



5775 Bowers Road

L1: Gambrel roof dairy barn (concrete block)



Ridge Road south of Liberty Road



Pipe Creek Road



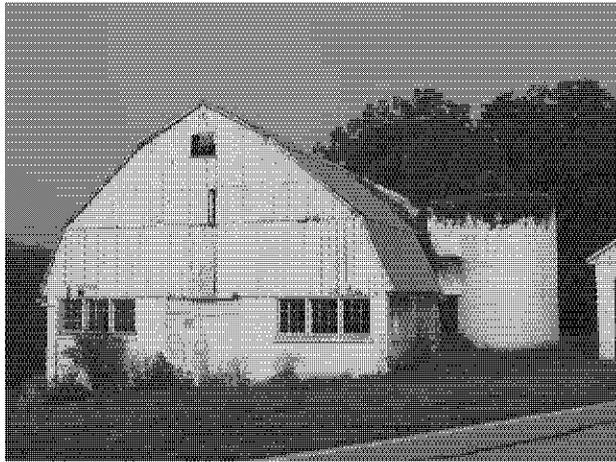
Walnut Grove Road



Teeter Road



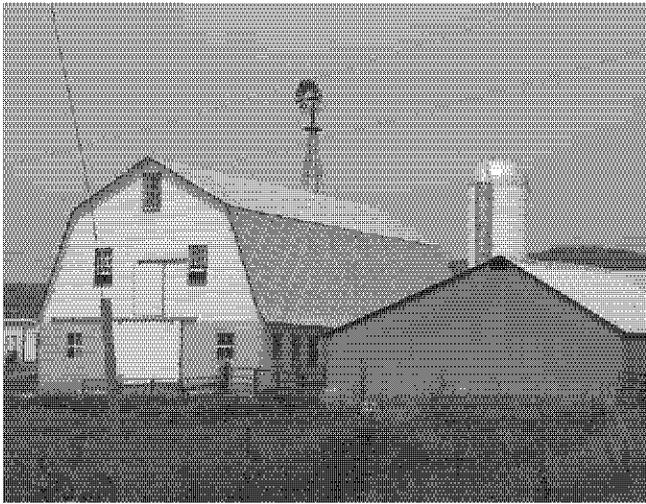
North side of Teeter Road (across from
4509 Teeter Road)



Sam's Creek Road



4607 Teeter Road



Bowers Road and Piney Creek

L2: Pointed-arch roof dairy barn



3803 Sams Creek Road

PART VI: SOURCES OF INFORMATION

A. BIBLIOGRAPHY

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B. OTHER

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