The Green Historical Society presents
Ohio Barns: Part I
Listening to the History of a Barn

Welcome & Meeting Opening
Reneé Summers, President

Please Join Us in the Pledge of Allegiance

Program Overview
BJ Hutchison, Vice President

Ohio's Historical Barns

Video Presentation Courtesy of the Ohio Farm Bureau Federation

To view this episode, please visit:

http://ourohio.org/television/shows-links-and-more/season-five/show-512/

American Barns

Paul Knoebel

Throughout the Evolution of Barn Construction, Form has Followed Function

Barns were built around the Threshing Floor

The Threshing Floor

Threshing is the act of separating the edible or usable part of a grain or crop (the kernel) from the scaly, inedible chaff or husk that surrounds it. The resulting kernels were then winnowed to separate the seeds.

The main bay enclosed by the barn provided enough room to swing the flail and then winnow the results to separate the seeds.

The Rest of the Barn

Bays – Area of a barn, physically defined and used for specific functions

Bents – Heavy timber framework section of barn's superstructure, which is connected to similar sections to complete the barn frame.

Mows – The mow was a place inside the barn where sheaves or hay was stored.

For a complete, concise listing of barn terminology see

http://www.kansasbarnalliance.org/barnologyglossary.php

Barn Basics

Barns are generally oriented so that the barnyard, stable doors, and forebay are to the south or southeast.

- Animals stay in the sunlight.
- Fresh air circulation throughout barn.
- The forebay is then the warmest, driest location for grain storage.

Overview of the Evolution of Barn Architecture

Early Barns – pre-1800

Early Barns were combined with the homestead

European Barns – family lived above the working barn floor

Early Dutch Barns – doors at one end of the barn, living quarters at the opposite end of the doors

English or Three Bay Barn, Connecticut Barn, Grundscheier, or Yankee Barn

- Doors centered on long sides, not ends
- Grain farming use
- Two end bays as mows – sheaves or hay storage areas, divided the barn into bays or sections
- Middle bay for threshing floor

New English Barns – Modified as Farming Practices Continue to Evolve

- addition of a loft
- housing livestock in one of the mows.

Circular and Polygonal Barns

Shakers and Quakers thought the circle was the most perfect form. They socialized in "circles" - sewing, singing, praying, and circles dominated their folk art - they "kept the devil from hiding in corners.“

The idea of the barn surrounding a central courtyard, already reflected in the connected barns of New England, found another life in circular and polygonal barns of the 19th century.

This idea was also the beginning of an "assembly line" mentality, making work more efficient for the farmer.

Prairie Barns – Western Barns

A peak roof projecting above a hayloft opening is one of the most familiar images associated with barns. The larger herds associated with agriculture in the West and Southwest required great storage space for hay and feed. Accordingly, prairie barns are on average much larger than the other barns discussed in this brief.

Affinities of this barn type with the Dutch barn are striking: the long, low roof lines, the door in the gable end, and the internal arrangement of stalls in aisles on either side of the central space are all in the tradition of the Dutch barn.

Pennsylvania Barns

In the early to mid-18th century, immigrants from Bavaria, Saxony, and Switzerland came to North America to settle in Pennsylvania. This new wave of pioneers brought an indispensable knowledge of farming and building construction. From their heritage came an efficient barn design that consciously adapted itself to the orientation of the land and proved most valuable to the farmer's expanding markets.

The Pennsylvania barn allowed for grain production on the upper level and animal husbandry on the lower level.

Pennsylvania Barns

The Pennsylvania Barn is an example of acculturation, as it incorporates the heritage of three nationalities - Swiss, German, and American - into one structure or style.

Its many names - Sweitzer, Swisser, Overshoot, Porch, Forebay, and Bank barn reflect the melting pot of traditions that went into its design.

By the mid-18th century, Germans, Swedes, Finns, Dutch, and English populated Pennsylvania. The state was an architectural melting pot of ideas. The farmer could select and choose what suited his needs and budget.

Pennsylvania Barn Terminology

Forebay Barn

- the second floor is extended, or cantilevered, over the first

-the overhang sheltered animals from inclement weather

- this overhang is probably Swiss in origin, very similar to the projecting roof and balcony of Swiss farmhouses of the 1600 & 1700's

- may be open, closed, or posted, may also have multiple overhangs

Bank Barn or Raised Barn

- the barn is built into the side of a hill, thus permitting two levels to be entered from the ground

-lower level housed animals, the upper levels served as threshing floor and storage

- if the desired location for a barn did not afford a hillside, a tall foundation would be built and ground would be mounded into an artificial ramp up to the threshing floor, this is called a *raised* barn

Evolving Farming Use Necessitates the Forebay Bank Barn

By the mid 1800's farmers had moved from simple grain production to producing mixed grain and livestock. As needed, the simple ground barn was replaced by the versatile forebay bank barn.

Evolving Farming Use Necessitates the Forebay Bank Barn

Characteristics and Advantages of the Forebay Bank Barn

- always banked to provide access to the upper level for processing and storing grain;
- contained several bays used as threshing floors and mows;
- the upper level floor extended south in a cantilever fashion over the stable wall below to provide a ventilated area for a granary on the upper level and protection from snow and rain for the animals on the south side of the barn at the lower level;
- the entrance/exit for the lower level, considered the front, always faced south;
- the lower level housed livestock as farmers learned that stabling and feeding cattle produced stock superior to cattle raised by the old pioneer practice of letting them roam.

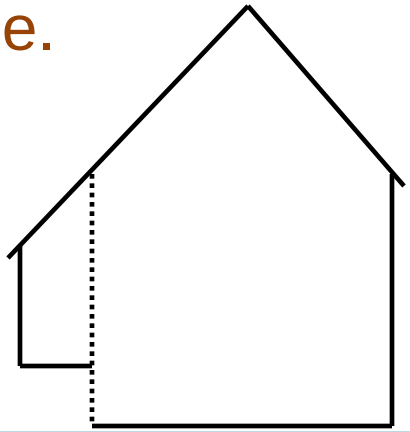
Forebay Bank Barns

The Sweitzer Pennsylvania Barn, 1730-1850

The front gabled roof slope is longer than the rear because the roof continues unbroken over the forebay.

The roof angle is steep, approximately 45˚, to facilitate drainage, giving the characteristic asymmetrical roof. The earliest Sweitzer barns generally have the steepest roofs and lowest forebay front walls.

The forebay front wall is two-thirds that of the rear wall due to the longer front roof slope.



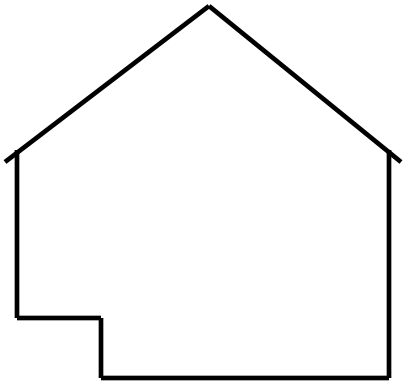
The Standard Pennsylvania Barn, 1790-1890

The main difference between this and the earlier Sweitzer barn is the use of symmetrical bents that include the forebay within the main barn frame - allowing the roof ridge to be centred over the barn.

This provides symmetrical gable ends and a forebay front wall height equal to that of the rear (north side) wall.

Another difference lies in a more shallow forebay from that of the Sweitzer.

The use of stone and brick was common. Standard barns have stone walls, usually at the gable ends.



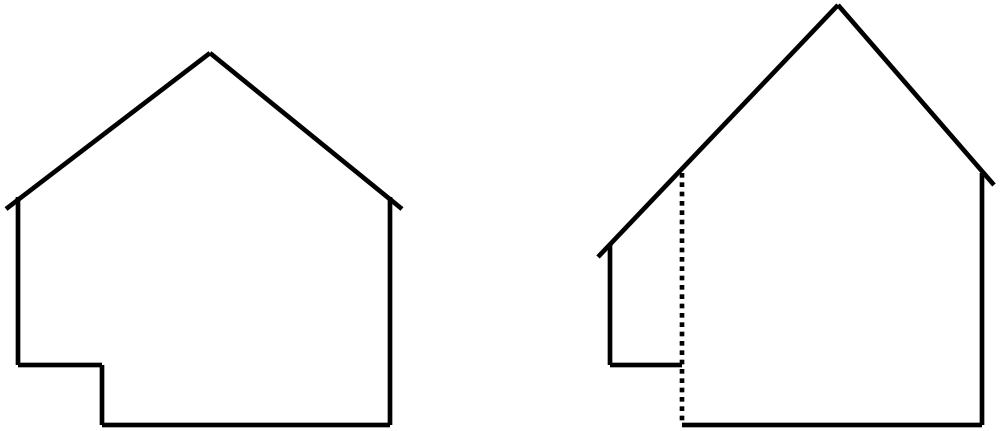
The Extended Pennsylvania Barn, 1790-1920

This third class includes barns enlarged by amending or extending the barn beyond the basic Sweitzer or Standard framing.

For the most part these alterations involve amending the forebay, extending the barn's ramp side, and vertically enlarging the barn by adding another level.

Sweitzer vs.
Standard (False Sweitzer) Barns –

which type do we have here in Green?



Aaron Swartz Barn

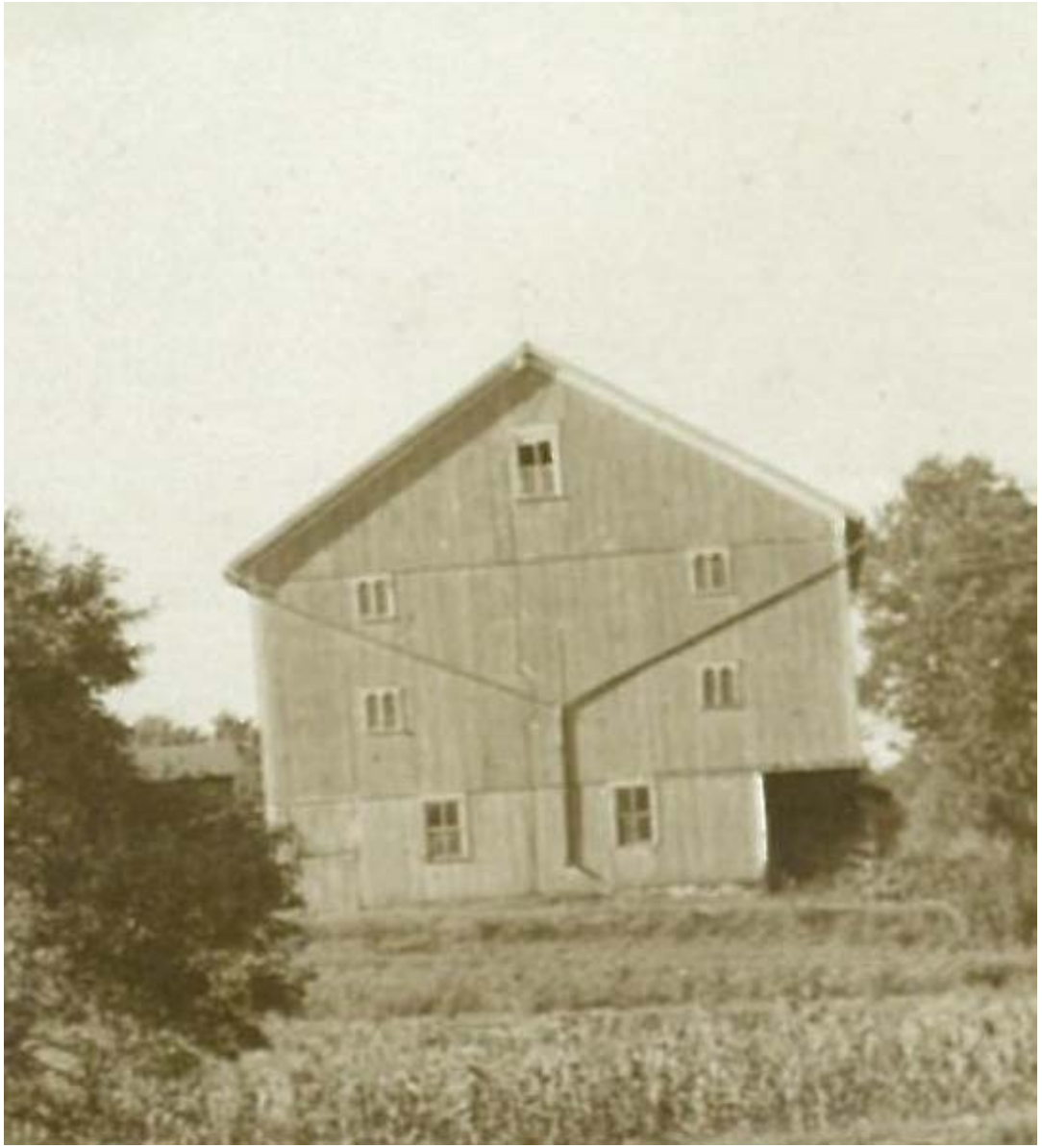
Circa 1882

Forebay

Bank Barn

Standard

Original Stone Replaced with Concrete Block



The Chappell Barn

Forebay

Bank Barn

Standard

L.J. Hartong Barn 1883

Forebay

Bank Barn

Standard

Cut Stone Bank Wall

Modified Sweitzer? Uneven gable, posted forebay, bank is on forebay wall not opposite,

How did all of these Pennsylvania Barns get Built in Ohio?

Conditions in Pennsylvania in early to mid 1800's – large farm families were relatively wealthy due to years of successful farming, they needed more land for future generations and to continue to increase scale of their farm operations with increasing demand of our growing nation

Birth of many new religions – many were seeking freedom to practice new religions with like-minded citizens

Westward Expansion – land fever

Local History Lesson

Cheap, Available Land and Access to Pastors Make Green Desirable

- Circuit Riders move in – several religious organizations tackle the western frontier and establish circuits in Green Township

- First Settlers purchase land at Steubenville Gov't. Land Office, $2/acre

- Joseph Long and Conrad Dillman receive Evangelical Circuit Riders in their homes as early as 1816, both men move their families to Green from Pennsylvania.

The circuit riders report the conditions in this area and word spreads throughout Pennsylvania of the fertile lands in this area

Large numbers of settlers of German descent from Erie and Lancaster Counties move to this area – the 1860 census indicates __

The 'architectural meltingpot' of Pennsylvania settles our area bring their skills and knowledge of barn building with them.

Agricultural Advancement

Mechanical Farm Equipment

In 1831 Cyrus Hall McCormick invents the horse-drawn mechanical reaper. Obed Hussey invents a hay or cutting device around this same time.

Our own Lewis Miller improved the reaper and mower from 1849 when he made 5 cutting devices sold to farmers in our community through 1899 when he died having 92 patents for farm implements naming him as inventor.

Reaper and mower technology continued to evolve. Farm machinery continued to grow in complexity and size.

Agriculture Evolves beyond the Forebay Bank Barn

The reaper was replaced with the combine harvester which harvests, threshes, and winnows the grain while it is still in the field.

The combine is much larger than earlier farm implements. All farm implements and crop storage requirements grow in size as the scale of farming continues to increase.

The evolution of farming techniques and farming equipment was responsible for the rise and eventual fall of the forebay bank barn.

The Barn's Other Enemies

- Lanterns (Remember, there was no electricity).
- Spontaneous combustion (Ventilation important)
- Lightning (Lightning rods)
- Lack of Use/Neglect

The Barn's Enemies Today

- Water
- Urban Sprawl
- *Chain Saw People*
- Fire

Junior Barn Detectives

NEED CONTACT INFO

The Friends of Ohio Barns

NEED REP NAME

http://www.friendsofohiobarns.org/

Preview of Ohio Barns Part II: The Heritage Revealed by the Barns of Green

Coming in Spring 2011

- Local Timber & Masonry
- Heritage of Our Local Barn Builders
- Case Studies of Local Barns
- Raising a Barn, The Merestead Farms Story

Questions and Answers

Please Complete your Information Cards and Return the Completed Cards to the Green Historical Society Members at the Exit

Thank you for your Attendance and Support!

Please visit our website at

www.greenhistoricalsociety.com

for information about the history of Green, Ohio and for information about our future presentations.

Next Presentation by the Green Historical Society

The Singer Lake Bog
featuring the Cleveland Museum of Natural History

November 18, 2010, 7 p.m.
The John Torok Senior Center

For more information about the Singer Lake Bog and the work of the Cleveland Museum of Natural History visit

http://www.cmnh.org/site/Conservation/NaturalAreas/Map/SingerLakeBog.aspx