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Historical Farming Systems and Historic Agricultural Regions:
A Word About Definitions

The concept of a "farming system" is helpful as a framework for understanding how agriculture in Pennsylvania evolved. A "farming system" gathers physical, social, economic, and cultural factors together under the assumption that all these factors interact to create the agricultural landscape of a given historical era. Physical factors like topography, waterways, soils, and climate set basic conditions for agriculture. Markets transportation shape production too. Other components, equally important but sometimes less tangible, form part of a "farming system." Cultural values (including those grounded in ethnicity) influence the choices farm families make and the processes they follow. So do ideas, especially ideas about the land.   Social relationships, especially those revolving around gender, land tenure, labor systems, and household structure, are crucial dimensions of a farming system. Political environments, too, affect agriculture.   The idea of a "farming system," then, opens the way to a more comprehensive and accurate interpretation of the historic rural Pennsylvania landscape. Whether we seek to interpret German Pennsylvania, the "Yorker" northern tier, home dairying areas where women dominated, or sharecropping regions in the heart of the state, the "farming system" approach is the key to understanding the landscape. Conversely, the landscape can tell about the farming system.

Extensive primary source research and fieldwork has helped to characterize Pennsylvania's historic farming systems, and also to establish a number of "Historic Agricultural Regions" where historic farming systems shared fundamental qualities over a long period of time, within a reasonably well defined geographic area.   These regions differed significantly from one another in soil quality and topography; product mix; mechanization levels; social organization of production; and cultural practices. The six Historic Agricultural Regions are as follows: Northern Tier Grassland; Central Limestone Valleys Diversified Farming; North and West Branch Susquehanna Diversified Farming; Potter County Potato and Cannery Crop Specialty Area; River Valleys Diversified Agriculture and Tobacco Culture; and Allegheny Mountain Diversified Part-Time Farming.   Though overlap surely occurs (especially in the twentieth century), each of these areas has characteristics that distinguish it from the rest. For example, the Northern Tier Grassland area was shaped not only by the limitations of glaciated soil and the proximity of urban markets, but by Yankee/Yorker culture, while farm households in the North and West Branch Susquehanna Diversified Farming region

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followed a diversified strategy that featured hogs and corn. In the Central Limestone Valleys, Pennsylvania German cultural influence was strong, and customs of share tenancy and rich limestone soil permitted one generation after another to raise wheat and livestock in a highly mechanized farming system. For a brief time in scattered river valley bottoms in the north and center of the state, tobacco culture forced significant alterations to farming patterns, and to landscapes. Potter County's specialty system flourished in the twentieth century, and for a time relied upon African American migrant labor. And finally, in the poor soils of the Allegheny Mountain Diversified Part-time Farming region, mining and manufacturing households used farming as a means to ensure family subsistence when wages were low.

Research into Pennsylvania's historic agricultural heritage quickly establishes an important point. No matter what the region or time period, where production was concerned the typical Pennsylvania farm unit was family-based, and survived by pursuing a wide variety of strategies; while particular *regions* of the state came to emphasize some products over others, *individual farms* rarely could be regarded as being specialized. So, we cannot approach historic Pennsylvania as if it were today's specialized, thoroughly commercialized agriculture writ small. The true essence of past Pennsylvania farming can only be captured by attending to the close-grained texture created by a multiplicity of small-scale, flexible enterprises, all of which served multiple purposes, including on-farm use, *or* off-farm sale, *or* barter. Thinking about Pennsylvania farms in terms of diversified production will allow for the most faithful interpretation of the Pennsylvania farmstead and rural landscape, which after all consist of a rich variety of buildings and landscape features -- with a variety of specialized spaces such as smokehouses, poultry houses, potato cellars, woodlots, summer kitchens, springhouses, and perhaps workshops or mills, not to mention intricate field and boundary patterns. This perspective also preserves -- indeed reclaims -- the contributions that a preoccupation with specialized market commodities tends to obscure: those of women, children, and farm laborers.

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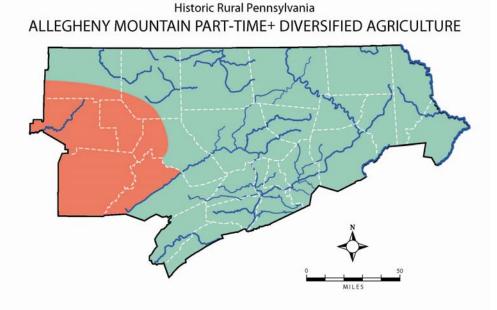National Park Service

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Location

The region extends westward beyond PENNDOT Districts 2, 3, and 4. Research was only conducted on the counties that lie within those three districts. The area encompasses much of Clearfield, McKean, Indiana, Jefferson, Cameron, Clarion, Venango, Forest, Elk, and Armstrong Counties. It also includes the portion of Centre County that lies behind the Allegheny Front – roughly including the following townships: Liberty, Howard, Boggs, Union, Huston, Worth, Taylor, Rush, Snow Shoe, Burnside, and Curtin. The Bald Eagle Valley is included, which runs parallel to the Allegheny Front. The Bald Eagle Valley soils are shaly and unproductive, so this valley fits more appropriately with the Allegheny Mountain system than with the Central Limestone Valleys to the south.

The region extends westward beyond PennDOT districts 2, 3, and 4. Research was conducted on the counties that lie within those three districts.

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Allegheny Mountain Diversified Part-time Farming, Centre County 1830-1960

For the time period before about 1830, see the separate narrative on the settlement period.

Climate, Soils, and Topography

This area has relatively cool and short summers and a short growing season; the average annual temperature is between 46 and 48 degrees Fahrenheit. The average number of frost-free days is about 150 Annual precipitation averages about 39-40 inches. Soils are ultisols of the deKalb series with parent material of sandstone or shale, generally unproductive. Much of the area is now under forest cover. Topography consists of rolling hills. These were formerly a fairly high (roughly 1,000-1,500 feet) plateau, converted into rolling hills over geological time by the force of streams.

1830-1850: Farming and Small-Scale Industry

Products, 1830-1850

This area was sparsely settled in the nineteenth century (by settlers of varied ethnic background including English, Scots Irish, and Pennsylvania Germans) and lacked easy access to distant markets for most of the period. Indeed, agriculture was not the main economic activity at all; extractive industries such as lumbering, charcoal making, and ironmaking dominated. It was not uncommon for a farm to occupy a large acreage, but only a small percentage of it was cleared for farming – the vast majority was wooded. For example, in Worth Township, Centre County, farms averaged 218 acres with only 38 cleared in 1850. The average Huston Township, Centre County farm consisted of 136 acres with only 34 improved. Lumbering took place mostly on a small scale. In Clearfield County a good deal of it was accomplished by residents who did the work seasonally, and farmed the rest of the year. They chipped away at the forest and rafted logs down the rivers during the spring freshets.[1]

Another enterprise requiring a great deal of timbered woodland was charcoal ironmaking. Iron furnaces at Milesburg and Curtin, as well as Hannah, Martha, and Julian Furnaces employed workers and annually chewed up hundreds of acres for charcoal making. Farm residents probably engaged in charcoal making, and definitely exchanged farm produce

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[1] Robert M. Sandow, "Deserter Country: Civil War Opposition in the Mountains of Pennsylvania," PH. D dissertation, History, PSU, 1993, has an economic profile of the lumbering country in this region. This summary accepts his conclusion that most lumbering before about 1855 was done on a small-scale or even household basis, and that farming/lumbering was a common combination of occupations.
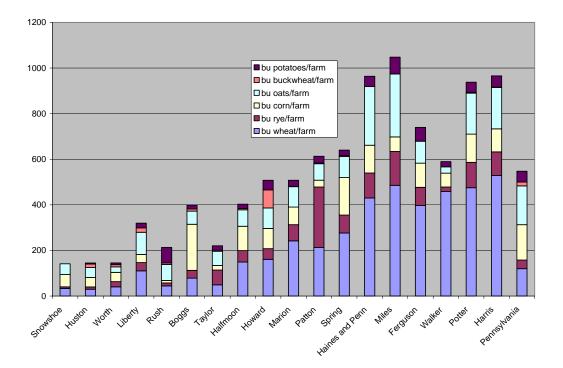
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with the ironworks, often taking iron in barter. The 1850 manuscript agriculture census
suggests that farms carried small numbers of livestock -- fewer than twenty animals
total, with just two or three milch cows and half a dozen swine -- far less than the fifty or
so carried on a Limestone Valley farm. This could have afforded at best a small surplus –
for example, with six or seven hogs, pork could be traded to the ironworks. Farm
families raised just five or ten tons of hay for their livestock; grain production was also
minimal – under 200 bushels *total* for most farms in these townships. Animals must have
foraged for themselves to some extent. The level of mechanization was very low –
averaging well under $50 per farm, when the limestone valleys townships had well over
$150 worth of implements. Farm values were also exceedingly modest – averaging
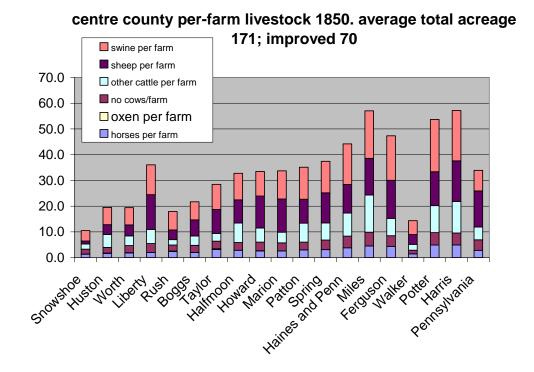around $1300 when the county and state averages were over 3000.

per farm crops centre county 1850. average total acreage 171; improved 70

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centre county per-farm livestock 1850. average total acreage 171; improved 70

Legend:
- swine per farm
- sheep per farm
- other cattle per farm
- no cows/farm
- oxen per farm
- horses per farm

Categories (x-axis): Snowshoe, Huston, Worth, Liberty, Rush, Boggs, Taylor, Halfmoon, Howard, Marion, Patton, Spring, Haines and Penn, Miles, Ferguson, Walker, Potter, Harris, Pennsylvania

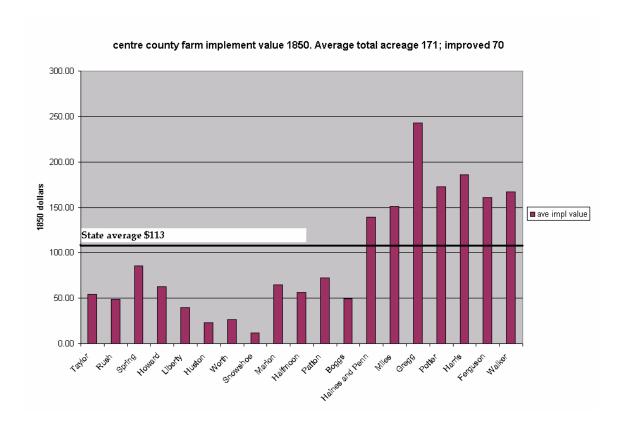Y-axis: 0.0, 10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0

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centre county farm implement value 1850. Average total acreage 171; improved 70

Labor and Land Tenure, 1830-1850
The relationship between small-scale industry and agriculture was very pronounced in this region during the first half of the nineteenth century. Especially in the northwestern townships, farms were essentially part-time. During the winter months, men cut down trees and prepared them for the spring rafting season; this occurred during the brief period when river waters rose enough to make the rivers temporarily navigable by rafts made from logs lashed together. There is some evidence that farming during these periods, when the men were away, was done principally by the women and children. Tenancy rates were low.[2] It is also important to remember that labor patterns in this phase of settlement extended beyond the family or household into the rural

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[2] Sandow, "Deserter Country: Civil War Opposition in the Mountains of Pennsylvania" gives an outline of the agricultural/lumbering economy in bordering Clearfield County. Data on farm tenancy from Centre County Historical Library tax assessment records.

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neighborhood. Families and individuals regularly exchanged work, services, and goods. Thus a farm that lacked enough pasture land might receive access to pasture from a neighbor in exchange for labor or for a good such as grain. For analytical purposes, then, it is important to note that the unit of analysis is not only the individual farm, but the farm neighborhood or community. The landscape implications of adopting this perspective are potentially significant, since it suggests that perhaps buildings, too, should be considered at least partly as communal resources.

In the ironmaking townships of Centre County, industry and agriculture were also very much intertwined, but in a slightly different fashion. Farmers here, too, exploited their woodlots, but soil conditions were slightly better than in the northwest, particularly in the narrow Bald Eagle Valley; and the ironworks provided local markets. The ironmasters also often functioned as landlords. In Boggs Township, Centre County especially, almost thirty percent of the farmers listed in the tax records of the 1850s were tenants, and the predominant names of landlords were Curtin, Green, Thomas and Valentine – all names associated with the iron industry.[3] So here, the notion of an "iron plantation" holds true for perhaps as many as a quarter of farms. The "plantation" lands included not only the raw materials of wood, limestone, and iron ore, but also worker housing, schools, churches, and tenant farms which supplied foodstuffs for the workers and the animals that labored to produce iron. The McLane Report of 1832 noted that quite a few ironmasters in Centre County bartered iron for beef, pork, hay, and other agricultural produce. Independent farms in the Bald Eagle Valley also likely supplied the iron works.[4]

Despite the differences in land tenure between the northwestern and Bald Eagle range townships, farm labor in both places was still performed largely by family members. The available sources do not reveal whether farm men worked on and off at the ironworks; that is possible, but tax records list only one occupation. Dairying, mainly involving women's labor, was unimportant in the region, so women's work was likely focused on tending livestock, harvesting and processing grains and hay, and processing foodstuffs.

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[3] Centre County Tax Records, Boggs Township, Centre County Historical Library.
[4] McLane Report on Manufactures in the United States, U. S. Department of the Treasury, 1832.

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Buildings and Landscapes, 1830-1850

CCHS Survey Files, Boggs Township, # 027-7-154

Houses, 1830-1850

The typical rural housing to the west of the Allegheny Front was modest compared with farm residences in the Limestone Valleys. Almost universally, the building material was wood – a natural choice considering the plentitude of lumber locally. The construction methods included log and plank and possibly modified timber framing. A typical house of the period was a two-story, gabled, two- or three-bay rectangular structure, often apparently just one room deep. Some of these were probably "I" houses, that is, with a plan consisting of two rooms flanking a short central hallway. However, most of these houses lacked the symmetry of the classic "I" house as described by Henry Glassie and others. Many of the houses that appear externally to be "I" houses actually lack the central hall. In any case, Centre County Historical Society historic site survey form photos reveal that asymmetry was more common. Often the second story would have just two windows, and fenestration did not follow any discernible or consistent pattern. Because this two-room core was small, most of these houses now have sprouted additions of one kind or another – often an ell extension, or an enclosed, one-story, hip roof porch.

CCHS survey files, photo 027-4-13,
Liberty Township, Centre County

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This housing stock is hard to associate with any particular ethnic group, but in general it seems to reflect a more heterogeneous culture than the Pennsylvania German Limestone Valleys. The "four over four" house (with its still more characteristic two-door version) is relatively uncommon here. If ornament appears at all, the classical repertoire of Greek Revival is favored – more like upstate New York or New England than like German Pennsylvania.

027-RU-002-02 Front of house, looking NE. Rush Township, Centre County.

Barns, 1830-1850
Really early barns (before about 1850) are rare in this region. Those that do survive are varied in form. For example, there are a few standard Pennsylvania barns with the typical forebay overhang. There are also some "English" barns, small three-bay, eaves-entrance barns that are not banked.   A few of these early barns are constructed of log. In general, it is not surprising that barns were scarce for the earlier period. Most farms would have had rudimentary single-pen stables that would meet their minimal requirements. These early barns, in short, reflect the rudimentary nature of agriculture and the heterogeneous origins of the population.

Outbuildings, 1830-1850
From this period, relatively few outbuildings survive. Probably smokehouses, springhouses, a pig house, and privy would account for most of them. Log was the dominant construction technique early, followed by plank and timber framing.

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Landscape features, 1830-1850
Woodland dominated during this period. Only toward the end did it make way for
significant acreages of clearing. The topography is hilly in most of these townships
(except for portions of the Bald Eagle Valley), so fields were probably irregularly shaped.
Pasture and meadow made up the bulk of cleared farm areas. Rail fencing would likely
persist here later than in the Limestone Valleys. Few remnants of this landscape remain.

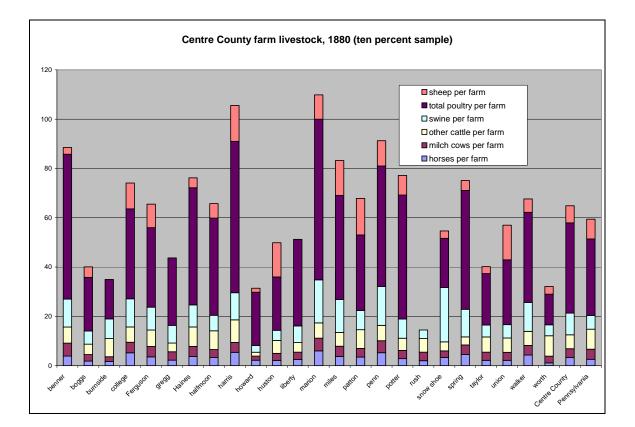### 1850-1920: Farming and Large-Scale Industry

Products, 1850-1920
Patterns from the earlier period continued, in the sense that farming was highly
diversified, with no crop or product predominating within the mix. Farm size varied
depending on time and place (see below). Production totals did increase from 1850, as
the acreage of improved land on farms increased. Farms in the region had about doubled
their grain output by 1880, focusing on corn and oats (100-200 bushels per farm), with
smaller quantities of wheat and even rye – an interesting anachronism. Potatoes were a
significant item also, especially in Rush Township, Centre County. The number of
animals on the farm changed very little, with beef cattle, swine, and poultry playing the
most important roles. The number of milch cows in 1880 just about sufficed for a
household (less than two per farm, with butter production at a corresponding subsistence
level well under 200 pounds), and there were relatively few horses, consistent with a
continued low level of mechanization in 1880. The watchword, as always, was
diversification.

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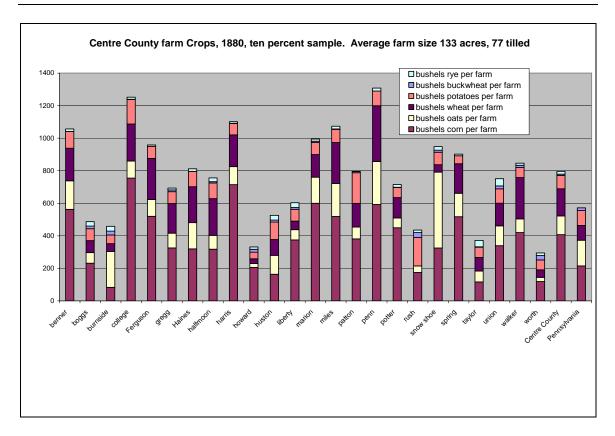Centre County farm livestock, 1880 (ten percent sample)

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Centre County farm Crops, 1880, ten percent sample. Average farm size 133 acres, 77 tilled

Labor and Land Tenure, 1850-1920:
The industrialization of lumbering and the rise of large-scale coal mining had important implications for farming and for farm work in the period. Lumbering continued on a small scale throughout the period (and also farms in this area marketed cordwood), but really large operations squeezed out most farm-based concerns. Larger operators owned thousands of acres and produced millions of board feet annually, beginning in the 1850s. These "employed many men…"[5] These camps presumably created markets for agricultural produce, and possibly also afforded seasonal employment for farm men. The difference from the pre-1850 period was that now, farm men performed wage work for lumbering corporations, rather than running small lumbering operations out of their own farms. It seems that this situation could mean an even greater role in farm work for

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[5] John Blair Linn, *History of Centre and Clinton Counties, Pennsylvania*, Philadelphia: L.H. Everts, 1883, 270.

NPS Form 10-900-a
(8-86)

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women than before. It also suggests that communal or collective patterns of labor
exchange could have been unusually important in this context. A classic example would
be the barn raising, in which men framed and raised the barn, while women cooked for
the crew.

Charcoal production continued too. Linn's 1883 history of Centre County stated that in
Boggs Township "much [is] yet a stranger to the plow of the husbandman. Timber tracts
are plentiful, and from them great quantities of charcoal are annual taken for use at the
ironworks at Milesburg and Curtin…"[6] As in the earlier period, the ironworks provided
both markets and occasional employment to farmers. The 1880 census of agriculture
shows that farms in Boggs, Howard, and Worth Townships (and to some extent Taylor)
in Centre County were unusually small. We may speculate that this may have been
because the ironmasters had bought up so much acreage in these townships, because farm
people combined farming on a modest scale with employment in the iron industry, or
even both. Many questions remained about how farm families negotiated labor, if indeed
the ironworks employed farm people from time to time. For example, did farms
emphasize chickens, swine, and beef cattle because those could be tended by women and
children?

Interestingly, by 1927 farm acreage in those same townships (Boggs, Howard, and Worth
Townships in Centre County) had risen significantly, suggesting that as the local iron
industry collapsed in the late nineteenth and early twentieth centuries, tracts became
available, conveniently clearcut (and low in price) because of the charcoal making that
had taken place in the previous generation. Moreover, the alternative of iron employment
had disappeared, so perhaps farm acreage had to expand to compensate. And, with the
decline of the iron industry, tenancy rates also declined in the Bald Eagle Valley.

Conversely, in the vicinity of Snow Shoe and Phillipsburg (Rush Township), the inverse
held: the rise of the coal industry in the late nineteenth and early twentieth centuries had
important implications for agriculture. Large coal corporations bought up huge tracts of
land, and perhaps this (and the opportunity for farm people to work seasonally in coal
mines) is what forced farm size in Rush and Snow Shoe Townships down under thirty
acres by the time of the 1927 census. We know that in Clearfield County, mines and
farms literally commingled, as farms not uncommonly had mine shafts right in the middle

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[6] Linn, *History of Centre and Clinton Counties*, 260.

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of cropland. Indeed, one farm surveyed in Rush Township, Centre County (027-RU-004) had two coal shafts on the farm property.

In Monument (Liberty Township) and Orviston (Curtin Township), company towns were established for the purpose of fire brick manufacture. It does not seem that these industries had an impact on farm size – they were more concentrated – but they must have created markets. This was also true for the mining concerns in Clearfield, Indiana, and Armstrong counties.

Though farm size and production varied significantly, tenancy rates tended to be low. Ownership rates were much higher than in the fertile Limestone Valleys – reflecting ethnic patterns and low land values.

Buildings and Landscapes, 1850-1920

Houses, 1850-1920
Basic house forms changed little during this period. Construction methods changed, as balloon framing and manufactured brick replaced log and plank. However, houses built in this period continued the pattern of small, two-or three-bay, two story structures, often just one room deep. In this economically marginal area, more typically a farmhouse would receive an addition rather than being altogether replaced.

027-RU-003-14 This house is built of yellow brick; it continues the older pattern of two bays over three, but adds a center gable and enclosed porch. Rush Township, Centre County

So, later additions include ells, enclosed porches, and the like. New materials appeared, such as brick, probably locally manufactured.

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CCHS survey files # 027-7-144, Boggs
Township, Centre County

Barns, 1850-1920
In the second half of the nineteenth century, barns became somewhat more elaborate, but
were still quite markedly more modest than their Limestone Valley counterparts. Several
different barn types appear in this area: the standard Pennsylvania barn, the Enclosed
Forebay variant of the Standard Pennsylvania barn, the three-gable barn, the Basement
barn; and the English barn. The Enclosed Forebay variant of the Standard Pennsylvania
Barn is somewhat difficult to identify for certain, because from the outside it resembles a
Basement Barn. The Enclosed Forebay variant, as its name implies, has had its forebay
enclosed, either from the start or (usually) later. The space created by this enclosure is
commonly known as a "storm shed," giving a clue as to its purpose. Evidence from
southwestern Pennsylvania suggests that the "storm shed" became common not because
more space was needed for more animals – on the contrary, animal numbers remained
small.[7] Instead, the "storm shed" appeared when farm economics determined that it was
profitable to shelter and feed animals properly. The sure diagnosis of an enclosed-
forebay barn is to determine that the forebay wall remains behind the enclosure. If
interior inspection is not possible, there are other clues that may distinguish an enclosed

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[7] Further west and to the southwest, (see Robert Ensiminger, *The Pennsylvania Barn: its Origin, Evolution,
and Distribution in North America*. 2nd ed. Baltimore: Johns Hopkins University Press, 2003, 234-5,
247, and 274-5 and McMurry, *Sugar Camps to Star Barns: Rural Life and Landscape in a Western
Pennsylvania Community*, University Park, PA: Pennsylvania State University Press, 2001, 147-150)
this type of barn is fairly common.

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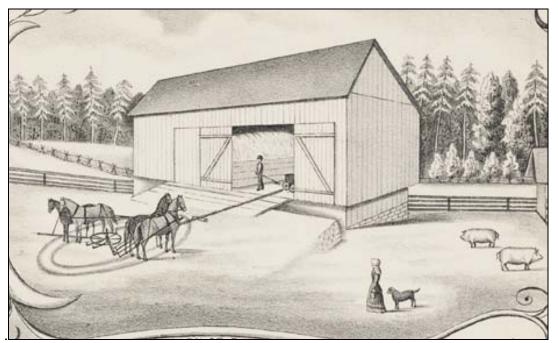NATIONAL REGISTER OF HISTORIC PLACES
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forebay from a Basement Barn. Basement Barns are often smaller than the Pennsylvania Barns from which the enclosed forebay variant derived. Also, the gable end door in a Basement Barn is more centrally located than in the enclosed forebay variant, betraying the longitudinal organization of the former and the location of forebay wall in the latter.

A survey of the barns depicted in Caldwell's 1878 Atlas of Clearfield County found that 53 barns were pictured, 21 of which were standard Pennsylvania barns and 7 enclosed-forebay barns. Three were raised Basement barns, and the rest were undetermined.[8]

All of these barns can be interpreted as evidence for small-scale, diversified crop and livestock housing under rather stressful climatic and economic conditions. They are common in western and southwestern Pennsylvania.

"Farm and Residence of Erastus Luther," from Craft's 1878 history of Clearfield County. This picture shows a Sweitzer barn with a horse-power.
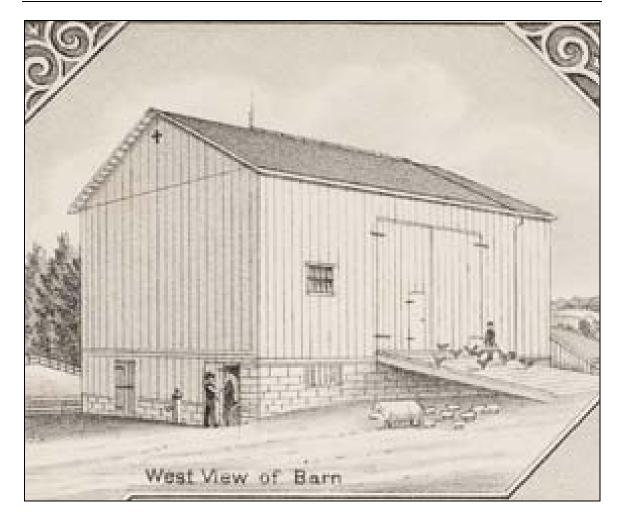
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[8] The information in this and the previous path is courtesy of Jerry Clouse.

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West View of Barn

Thomas H. Murray Barn, from 1878 Craft History of Clearfield County. This barn is either a Basement barn or an extended-forebay Pennsylvania Barn.

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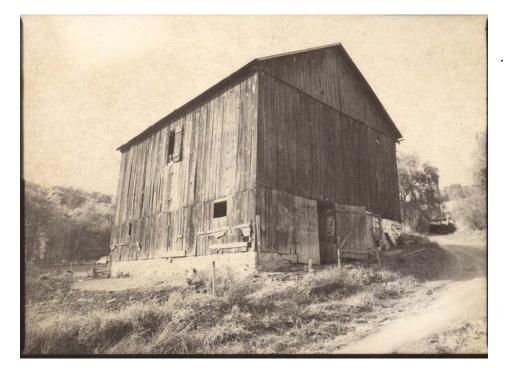
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027-RU-004-05 Barn, looking E. This is an Enclosed Forebay Pennsylvania Barn in Rush Township,
Centre County.

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CCHS survey files, # 027-7-144, Boggs Township, barn. It is hard to tell, but it looks as if
the forebay wall is visible behind the door.

These barns also probably reflect the varied ethnic origins of the population here. These
areas were more heterogeneous than the heavily Germanic areas further east. People of
British Isles extraction, and from New England, New York, and New Jersey, were more
numerous--thus the "English" barn and the raised basement barns.

Outbuildings, 1850-1920
The characteristic outbuildings of the earlier era – smokehouse, springhouse, summer
kitchen, privy, pig shed – continued in use at least through the 1930s. Indeed, new ones
were built, sometimes of locally made brick (Centre County Survey property # 027-7-138
in Boggs Township has a smokehouse made of Vulcan brick.) Some corncribs also probably date
from this period, since corn production had increased significantly since mid century.

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027-RU-004-01. Summer kitchen-butcher house.
Rush Township, Centre County.

027-RU-004-09 Springhouse, looking N. Rush Township.

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027-RU-004-28 Outhouse, looking E. Rush Township.

This view of three-bay house, Enclosed Forebay barn, and outbuilding with corncrib is located along Route 36 in Jefferson County.

Landscape features, 1850-1920
By this point the apex of clearing had been reached. Fields were small, square-ish. They extended up the sides of the hills, often nearly to the top. They were divided by hedgerows and treelines. Fencing was mostly wood-and-wire. Woodlots were prominent—many farms still 'harvested' many cords of firewood yearly.

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1920-1960: Bald Eagle Valley –
Dairy and Poultry Production for local and regional markets
*Note: During the twentieth century, the farm economy of the region underwent an
internal differentiation. In the Bald Eagle Valley, farming took on a rather standard
profile of small commercial farms. In Rush and Snow Shoe Townships, which are more
representative of the Allegheny Plateau region as a whole, however, the only form of
farming that continued was on a very small scale and stressed household production.
The two sub-areas are therefore separated.*

Products, 1920-1960: Bald Eagle Valley
The integration of road and rail networks in this period, coupled with the rise of large
urban markets on the eastern seaboard, brought Centre County into the eastern
"milksheds." Milk "stations" were established in Howard and in Bellefonte. These
collected fluid milk for distribution to city markets or to processors. Townships along the
Bald Eagle corridor were especially affected (Liberty, Howard, Boggs, Union, Huston,
Worth, Taylor). In Clearfield and other counties, local milk markets developed along
with coal-patch and regional cities (Clearfield, Indiana, etc.) The number of milch cows
per farm increased there, as did poultry raising. Farm acreage hovered over one hundred,
with a small portion of it in crops.   These farms raised very small amounts of corn, oats,
wheat, buckwheat, and potatoes, with an occasional few acres of silage corn. Hay was
universally raised. In areas near towns such as Howard and the industrial fire-brick
making villages, local markets supplemented the milk stations along the railroad lines.
Poultry raising became more popular after about 1920; all across the state, farm families
turned their attention to poultry as dairy and grain prices collapsed.   Families continued
to raise more hogs than they needed for their own use, and often one or two steers as
well. Besides the milk sales, marketing outlets included personal sales to neighbors,
huckstering, and dealers.

Labor and Land Tenure, 1920-1960: Bald Eagle Valley
Labor was primarily accomplished by family members, as before, along with hired labor
during especially busy seasons. The focus of work shifted somewhat, as animal
husbandry became more important, whether it was tending dairy cows or increasing
numbers of hens. And, as before, men, women, and children collaborated on the farm,
and neighbors shared in work as well. It is likely that women continued in dairying even
after the shift to fluid milk, because milking machines were rare, and some farm butter
was still made. As well, poultry raising did not shift to men overnight; extension photos

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show audiences at the agents' poultry clinics divided about equally between men and women. The auto, and the mechanization of such tasks as threshing, changed labor patterns. For example, other studies show that farm women used the auto for production-related errands, to expand and solidify social ties, and for recreation. Patterns of labor exchange between farm households were attenuated in comparison with the earlier periods, but they did not disappear. For families using silos, for example, communal silo filling followed earlier patterns of collective labor.

Butchering_1920s, Johnson McKinley farm, Franco Collection
CCHS. Note that this gathering is all women and girls.

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Marie Johnson milking, 1930s, Johnson-McKinley farm,
Franco papers, CCHS

Compared with the limestone valleys, tenancy rates were much lower (usually less than
20 percent). This probably reflected the lesser value, smaller size, and heterogeneous
ethnic origin of farms in the Allegheny Plateau region.

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Buildings and Landscapes, 1920-1960: Bald Eagle Valley

Houses, 1920-1960, Bald Eagle Valley
House construction methods changed, as balloon framing replaced log and plank.
However, houses continued the pattern of small, two or three bay, two-story structures
with little ornament. Additions rather than new houses were the norm.

This photo shows a new brick house being constructed around 1935
in Boggs Township, Centre County. Franco Collection, CCHS.

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Barns, 1920-1960, Bald Eagle Valley
The Enclosed Forebay variant of the Standard Pennsylvania Barn continued to be built into this period. (See description in the previous section.) Again, its significance is that the "storm shed" created by enclosure that it afforded protection for milk cows in the harsh mountain climate. The "storm shed" appeared when farm economics determined that it was profitable to shelter and feed animals properly. Sometimes the "storm shed" had doors on either end so it became a drive-through shed; other times the extra room was put to use for animal shelter.

CCHS survey files # 027-4-27b, Liberty Township, Centre County

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CCHS survey files, 027-7-154, Boggs Township. Extended Forebay.

027-BO-004 (left) large three-gable barn modified for dairy, along with a tile silo. This building is among the few dairy barns and large cattle barns that appeared in the region in the twentieth century, mostly anomalous in the region.

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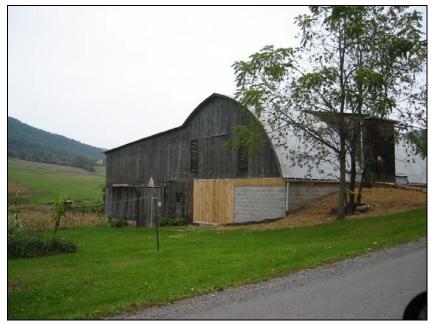CCHS survey files, 027-7-70, Boggs Twp, Centre County

027-RU-002-17 N. side of barn, looking SE.
This barn has an exaggerated downslope extension.

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Another barn type, a rainbow-roof banked barn with hay door, appears at site 027-BO-002.
 A similar structure does appear in Noble, volume 2, page 46, and he calls it a round-roof barn.

Outbuildings, 1920-1960, Bald Eagle Valley
Summer kitchens continued in use. Examples were surveyed at Site 027-BO-004 and
BO-002.

Springhouses also retained an important farm function. Electrification came only
unevenly and quite late in some places, so these two outbuildings were used well into the
twentieth century. Site 027-BO-001 has a springhouse.

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Milk houses became more common as the impact of sanitary regulations reached into the new dairy areas – not effectively in this region until the 1930s.

Concrete block milk house, Centre County Historic Survey files site # 027-4-27b, Liberty Township).

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Poultry facilities were common here as elsewhere.

This chicken house was on skids so it could be moved around. Centre County Historical Society, Franco Papers. This was the Johnson-McKinley farm in Centre County.   Site 027-BO-002 also has a poultry house

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Corn Crib.   Corn cribs stored feed corn. Probably little was sold off the farm. This corn crib is in Boggs Township, Centre County. site 027-BO-002.

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Machine sheds tend to be smaller than in more highly mechanized farming areas.

027-RU-004-02 Machine shed-garage, looking N. Rush Township.

Silo. A few silos appeared as dairying gained hold, especially in the Bald Eagle Valley. These would be concrete stave, tile, concrete rings, etc. See 027-BO-004 picture above under "Barns" (though mostly after 1930).

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A rare photo of a silo being erected in Boggs Township, Centre County, 1930s.
Franco Collection, CCHS.

Landscape Features, Bald Eagle Valley, 1920-1960

Landscape features in the Bald Eagle Valley would include small, square-ish fields; fields defined by treelines, fences, and hedges; clumps of trees in fields, for livestock shade and shelter; fencing mostly of wood-and-wire; woodlots; ornamental plantings near houses; and so on.

Lee Johnson and son. Franco collection, CCHS

1930s photo, Boggs Township, Centre County:

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Weixel Farm, Upper Marsh Creek, Curtin Township, Centre County. CCHS Places and Spaces file, # 62-10.

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Harry Johnson homestead, 1940s, Liberty Township, Centre County. Franco Collection, CCHS.

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Allegheny Mountain Industrial Regions, 1920-1960: Household Production

Products, 1920-1960: Allegheny Industrial Regions

The pattern was different in the coal areas than in the Bald Eagle Valley. This portion of the narrative draws mostly on primary materials from west of the Allegheny Escarpment in Centre County; but its findings should apply to the Allegheny Mountain areas in Jefferson, Clearfield, and Indiana Counties as well. In Rush and Snow Shoe Townships, Centre County, farms averaged a total of thirty or fewer acres in 1927. This was a drastic decline from 1880, and it should probably be attributed to a combination of poor soil quality, corporate engrossment of lands, and work opportunities in the mines. These farms were at a subsistence level of production. They carried just one horse, a cow, three dozen hens, and a couple of swine. Hay accounted for most of the cropland, with the notable exception of an acre of potatoes.

Labor and Land Tenure, 1920-1960: Allegheny Industrial Regions

In the coal mining areas, farming was typically a part-time enterprise. According to a 1938 study on "Part-time farming in Six Industrial Areas in Pennsylvania," in Clearfield County, the farm accounted for just 18 percent of the family's income.[9] Men tended to commute to work in the coal fields, refractory brick plants, railroad, etc. There is some evidence that previous farm family labor patterns continued: new industrial employment for men supplanted lumbering, and women performed the majority of the farm work. The 1938 study noted that women did over half of the farm work. (This may be an underestimate, as it probably doesn't count work such as boarding miners, railroad men, etc) Compared with the limestone valleys of Centre County, farm work was relatively unmechanized. However, the gap with the limestone valleys was less noticeable when it came to modern conveniences such as heating systems, electrification, radios, and indoor plumbing: few Central Pennsylvania farms anywhere had these.

There is an interesting dimension to farming in this area. By this time, the mines and company towns had attracted immigrants to the area from Southern and Eastern Europe. The 1930 tax records for Rush and Snow Shoe Townships show this clearly. In addition to the English and German-sounding names, owners of smallholdings possessed surnames such as Krupo, Mayfesky, and Olenowski. These smallholdings (their owners were listed as farmers) consisted of ten or so acres, along with a house and barn.

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[9] The contribution of the farm to family *subsistence* could have been much greater than the 18%, which refers to cash sales.

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Fieldwork has not established conclusively whether immigrant families were carrying on peasant agricultural traditions, or supplementing unreliable mining income, but there is some suggestive evidence (see below, in 'Buildings').

Buildings and Landscapes, 1920-1960: Allegheny Industrial Regions

Buildings, 1920-1960
In the coal areas, farm buildings were minimal. The 1930 tax records for Rush Township show that most of these small farms had at least a house and barn, though field research suggests that the word "barn" was rather loosely applied. No obvious ethnic associations revealed themselves in fieldwork. What we find is small plots, even quite close to towns such as Phillipsburg, clearly worked on a very small scale. Buildings might include small, multipurpose storage buildings located essentially in a backyard. On larger holdings, there might be a small barn, hog house, poultry house, and perhaps a smoke house or springhouse.   House construction methods changed, as balloon framing replaced log and plank. However, houses continued the pattern of small, two or three bay, two-story structures with little ornament. Additions rather than new houses were the norm.

027-RU-005-03 Storage front, looking NW. Rush Township. This modest multipurpose building illustrates small scale subsistence efforts.

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027-RU-006-02 Spike Island Rd. storage bldg. # 1, looking W. Rush Township. Another example of small scale subsistence level production.

Landscape Features, 1920-1960
The most striking aspect of agricultural landscapes in this region is the literal intertwining with industry, mainly coal mining. When mining was more active, these farms were accompanied by evidence of mine shafts, quarrying, lumbering, etc. Today, many shafts have disappeared in vegetation. The photos of Merrit Bundy's farm in Clearfield County show this dramatically. A mine shaft emerges right next to a field with shocks of grain; a few trees separate the mine shaft from what looks like a pasture or meadow area. A dirt road goes by the farm, and utility poles can be seen near the house.

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Mine Workings, Merritt Bundy farm, Clearfield County, FSA/OWI photo, 1944, Library of Congress. Jack Delano, photographer. Digital ID **fsa** 8c03033

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Knees Farm, Clearfield County, FSA/OWI photo, 1940, Library of Congress. Jack Delano, photographer. Digital ID **fsa** 8c02939 . Mine workings are not visible in this photo, but it does suggest the variety of farm operations; there seems to be a large truck patch to the right, a poultry operation across the road, and grain shocks in the background. Between the barn and the road are two buildings, one of which looks like a granary. It looks as if the crops are contour stripped.

Comparatively few farms remain today in this region. Outmigration and industrial decline have taken a toll on the rural areas. Poverty is a persistent problem. The proportion of woodland has risen again, and new rural land uses include recreational activities such as hunting. The historic importance of woodlands has combined with the area's agricultural history in interesting ways; for example, Indiana County boasts of being the Christmas Tree capital of the nation.

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