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Agricultural Resources of Pennsylvania, c. 1700-1960

**Allegheny Mountain**  
**Part-time and General Farming, 1840-1960**

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This document is a parallel to the official National Register MPDF narrative. The two versions are not identical, but they contain the same information differently organized. National Register policy prohibits embedded images in official documentation. These PDF versions re-integrate the images for the reader's convenience. The National Register documentation was completed and submitted piecemeal. This PDF document reflects the updates made during the process of making statewide coverage together, again for the reader's convenience.

### **Conceptualization: Historical Farming Systems and Historic Agricultural Regions**

Pennsylvania presents interesting intellectual challenges for the agricultural historian and archaeologist. The watchword for Pennsylvania's agricultural history is "diversity." The widespread transition to a relatively specialized monocrop or single-product system did not really take hold until after the Second World War in Pennsylvania. Beginning in the settlement era and stretching well into the 20th century, diversity of products was a hallmark of nearly every farming region as a whole, and of individual farms too. As late as 1930, the state Agricultural Experiment Station Bulletin proclaimed "the largest number of farms in Pennsylvania are the farms with some diversity of crops and livestock production."<sup>1</sup> According to the 1930 Federal census, nearly 53 percent of the state's farms were either "General," "Self-Sufficing," or "Abnormal" (mainly part-time) farms. "Specialized" farms were defined as those where at least 40 percent of farm income derived from a single source. These included types labeled variously as "dairy," "cash grain," "fruit," "poultry," and "truck farms."

Over time, regionalism declined in significance within Pennsylvania, yet farming across the state remained surprisingly diverse. Along with other eastern states, Pennsylvania agriculture shared in the general shift more towards specialization, commercialism, state oversight, industrialization, decline in farming population, and the like. This trend is recognized in the context narrative. However, it is

important always to keep in mind that existing literature on Pennsylvania agriculture exaggerates the degree of change before 1950. In 1946, Penn State agricultural economist Paul Wrigley identified “Types of Farming” areas in Pennsylvania. Only the Northeast and Northwest were given descriptors that implied specialization; these were dairying areas. The rest were given names like “General Farming and Local Market section.” Equally significant was the fact that statewide, the top source of farming income – dairying -- only accounted for a third of farm income. To be sure, there were pockets where individual farms specialized to a greater degree (in terms of the percentage of income derived from a single product), but these were the exception rather than the rule; overall even in the mid-20th century, Pennsylvania agriculture was remarkably diversified both in the aggregate and on individual farms.<sup>2</sup>

Even many farms defined as “specialized” by the agricultural extension system were still highly diversified in their products and processes. This was because so many farm families still engaged in a plethora of small scale activities, from managing an orchard, to raising feed and bedding for farm animals, to making maple sugar or home cured hams. Many of the resulting products would not necessarily show up on farm ledger books because they were bartered, consumed by the family, or used by animals, or sold in informal markets. In other words, they fell outside strictly monetary calculations of “farm income.” Yet they were important aspects of a farm family’s life and took up a good deal of family members’ time. Indeed, we can’t understand the historic agricultural landscape without acknowledging these activities, because they so often took place in the smokehouses, poultry houses, potato cellars, summer kitchens, springhouses, and workshops that appear so frequently in the rural Pennsylvania landscape. These spaces might not be well accounted for (if at all) in a conceptualization that emphasizes commodity production, but they become more readily comprehensible when we take into account the broader diversity of farm productions. Another important benefit of this perspective is that it preserves—indeed reclaims—contributions that a preoccupation with specialized market commodities tends to obscure, for example those of women and children.

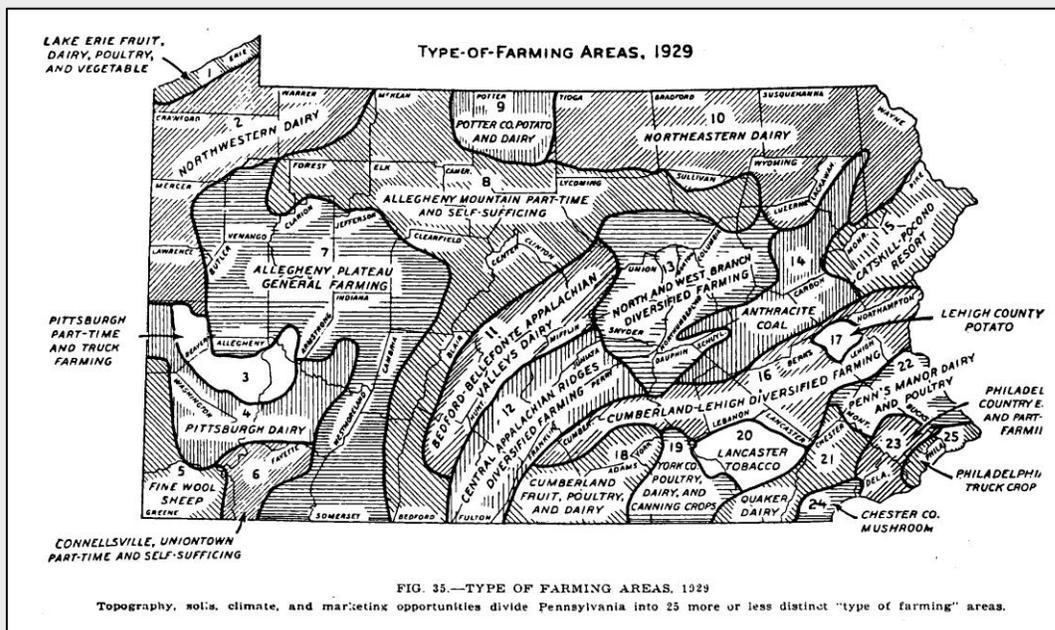
Acknowledging the historic diversity of Pennsylvania farm productions helps to clarify much, but it also raises a fundamental challenge for conceptualizing an approach that will faithfully convey Pennsylvania’s agricultural history, and make

it possible to understand the landscape that was created as people farmed in the past. How can we make sense of this sometimes bewildering variety? Added to diversity of products we must consider a diversity of cultural repertoires; a diversity of labor systems; diversity of land tenure arrangements; varied levels of farm mechanization; 93 major soil series; ten different topographic regions; and growing seasons ranging from about 117 to over 200 days. The concept of a “farming system” was found to be particularly helpful as a framework for understanding how agriculture in Pennsylvania evolved. A “farming system” approach 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 and transportation shape production too. Other components, equally important but sometimes less tangible, form part of a “farming system.” For example, 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” opens the way to a more comprehensive and accurate interpretation of the historic rural Pennsylvania landscape. For example, because the notion of a “farming system” includes land tenure and mechanization levels, we can identify a distinctive region in the heart of the state where sharecropping and high mechanization levels supported a cash-grain and livestock feeding system. This allows us to interpret the tenant houses, “mansion” houses, multiple barn granaries, large machine sheds, and crop rotation patterns that typify this region. Or, by including cultural forces as part of a system, we can differentiate a three-bay “English” barn from a three-bay German “ground” barn. By attending to labor systems, we can appropriately interpret the Adams and Erie fruit-belt areas that relied on migrant workers. And so on. So whether we seek to interpret German Pennsylvania, the “Yorker” northern tier, home dairying areas where women dominated, or tobacco farming in Lancaster County, the “farming system” approach is key to understanding all aspects of the rural Pennsylvania farm landscape—not only the house and barn.

### Identification of Historic Agricultural Regions

Mapping done by agricultural economists in the early 20th century identified “Types of Farming” areas based on soil types, topography, markets, climate, and production. These helped to establish clear regional boundaries to the extent that topography, climate, and soil types set basic conditions for agriculture, and they also aided in identifying 20<sup>th</sup> century production patterns. However, the agricultural economists were mainly interested in production and markets; they did not take into account other important factors which shaped the landscape, especially ethnicity, labor patterns, and land tenure. For this cultural and social data, cultural geographers’ work has proven valuable, because it maps information on settlement patterns, building types, ethnic groups, and even speech patterns. And finally, new maps of farm tenancy were generated for this report. Examples of these maps are reproduced below. Together, these resources were used to outline regions that allow us to avoid a “one size fits all” approach on the one hand, and the over-detailed focus on a single farm on the other.



From Penn State College Agricultural Experiment Station Bulletin 305: “Types of Farming in Pennsylvania,” April 1934.



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## Location

The Allegheny Mountain Part-Time and General Farming Region encompasses most or all of Somerset, Fayette, Westmoreland, Cambria, 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 Rush, Snow Shoe, Burnside, and Curtin townships. The region's limits are defined primarily by topography and soils.

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## 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. The region includes two main soil associations. The Gilpin-Wharton soils, formed mainly from shale, form the primary association in Butler, Armstrong, Clarion, Indiana, Jefferson, Clearfield, Cambria, Somerset, Westmoreland, and Fayette Counties. The Hazleton-Cookport association dominates in Venango, Forest, Elk, Cameron, Warren, and McKean Counties. These soils are formed from sandstone and quartzite. Soil associations largely account for the region's western boundaries: the glaciated soils of northwestern Pennsylvania differentiate the region to that direction, while the Guernsey-Culleoka soils of Washington and Greene counties form a boundary on the southwest side. Allegheny and Beaver Counties both have mainly Gilpin-Wharton soils, but waterways, transport, and urban development make their inclusion in the Southwest region more appropriate.<sup>1</sup> 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. Within this pattern, the topography varies, with some sections being hillier than others. Topographically, on the east, the Allegheny Front runs from Somerset County's eastern boundary, up along Cambria's eastern boundary, and through Centre as described above. This separates the region from others to the east. To the north, the region includes the Deep Valleys and High Plateau sections, both with low agricultural activity.

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## Historic Farming Systems

### 1830-1850: Farming and Small-Scale Industry

#### Products, 1830-1850

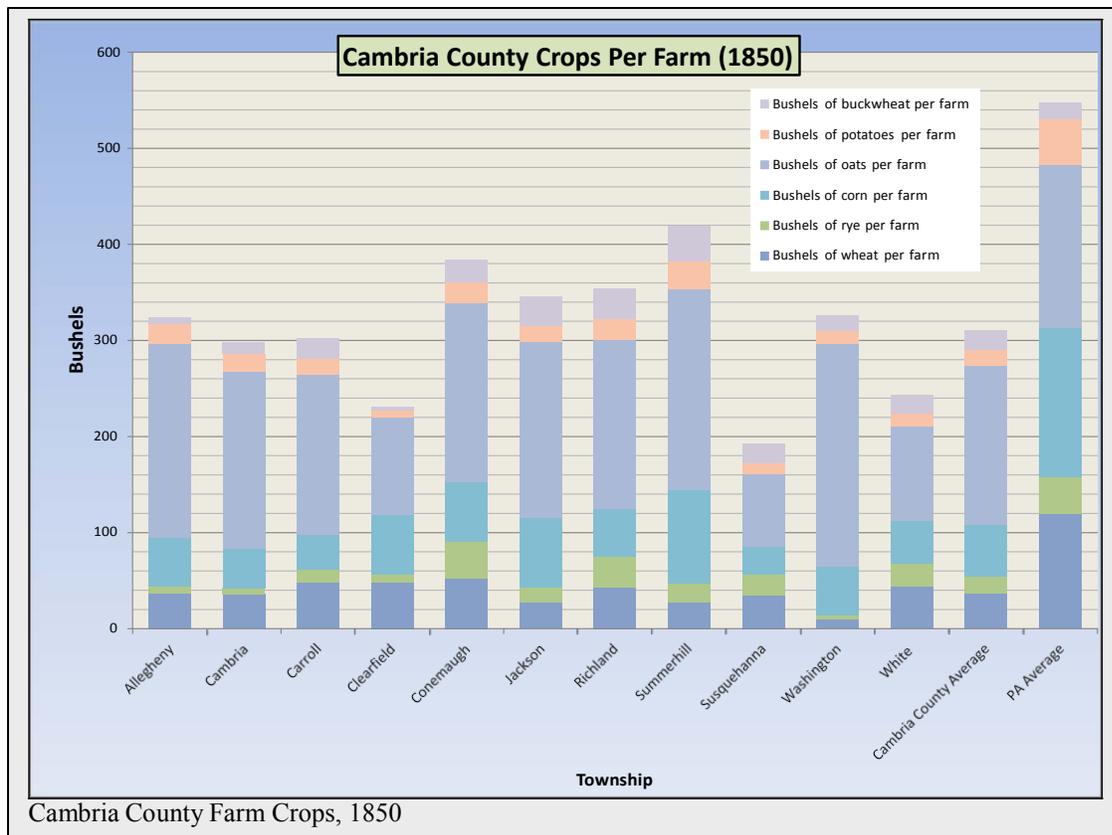
Much of this area was sparsely settled in the nineteenth century by settlers of varied ethnic background including English, Scots Irish, and Pennsylvania Germans. Also the region lacked easy access to distant markets for most of the period. Indeed, agriculture was not the main economic activity at all; 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.<sup>2</sup> In Cambria County, though overall farm size exceeded the average, the percentage of improved land was low. Woodland took up much more farm area than elsewhere – over half the acreage as late as 1880. Crops and livestock holdings were correspondingly small, and mechanization was limited. Though more land was improved as time went on, the relative position of the region did not change; its farms were always small scale and less productive.<sup>3</sup> As in the rest of the region, these characteristics were shaped not only by disadvantageous topography and soils, but by the dominance of extractive pursuits and heavy industry in the region.

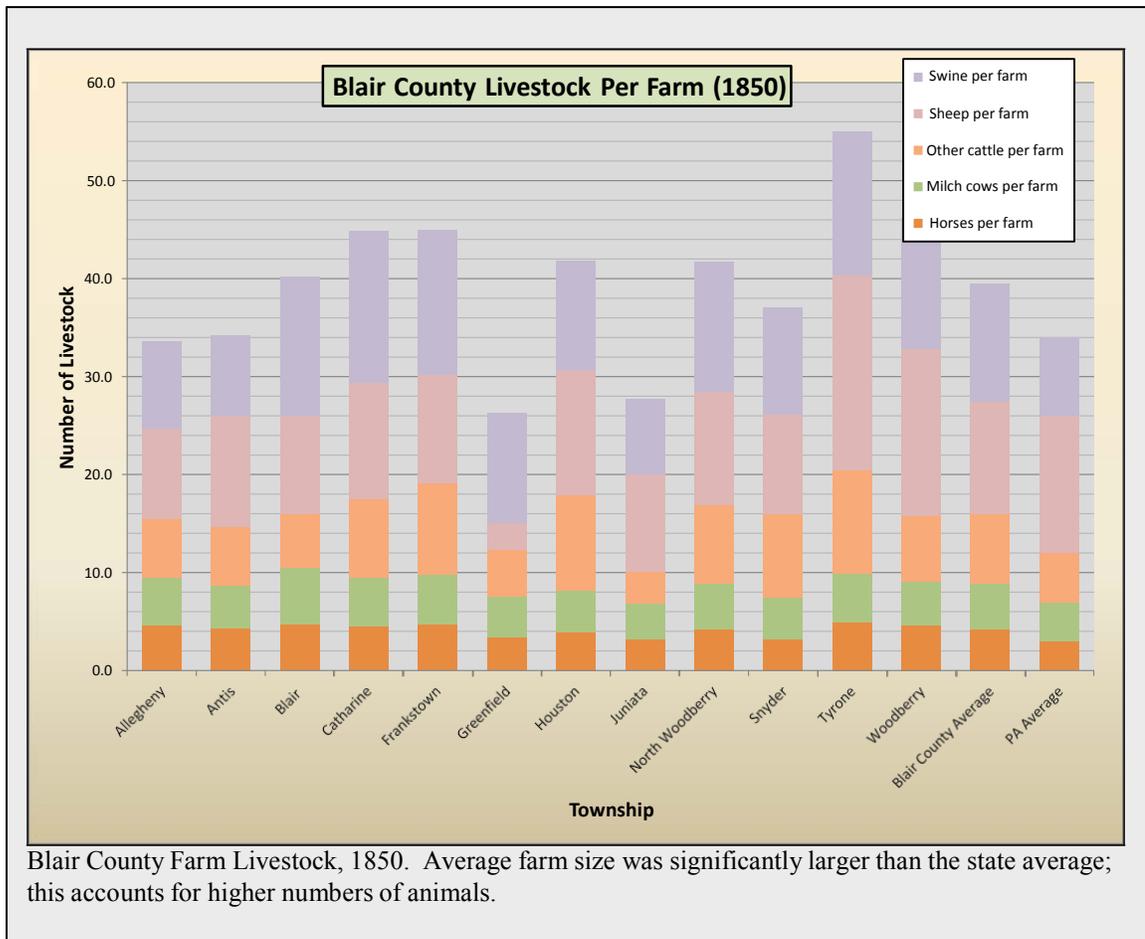
An enterprise requiring a great deal of timbered woodland was charcoal ironmaking. Iron furnaces scattered throughout the region employed workers and annually chewed up hundreds of acres for charcoal making. Farm residents probably engaged in charcoal making, and definitely exchanged farm produce with 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 in other Pennsylvania farming regions. 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 many other regions averaged well over \$150 worth of implements. Farm values were also exceedingly modest – averaging around \$1300 when the county and state averages were over \$3000.

By the mid-nineteenth century, farms in Fayette and Westmoreland Counties were about average for the state in terms of crop and livestock production. They still had far more unimproved land than average. No particular enterprise stood out; farm families produced grain, butter, cheese, maple products, wool, cider, and forest products. Goods were sent to Pittsburgh and from there to New Orleans. The National Road and other roads to Pittsburgh stimulated the agricultural economy, by providing good transport to markets, and also because travelers and drovers on the road needed food and drink, for themselves and their animals. Large herds of animals were driven out from Westmoreland County on these byways.<sup>4</sup>

Somerset County also conformed to patterns in the wider region in most respects. An agricultural and lumbering period to about 1880 was followed by one in which agriculture and industry intertwined. Through much of the 19<sup>th</sup> century and into the 20<sup>th</sup>, the county was a leader in maple sugar and syrup production.





### 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 portion of the region, 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.<sup>2</sup> It is also important to remember that labor patterns in this phase of settlement extended beyond the family or household into the rural 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

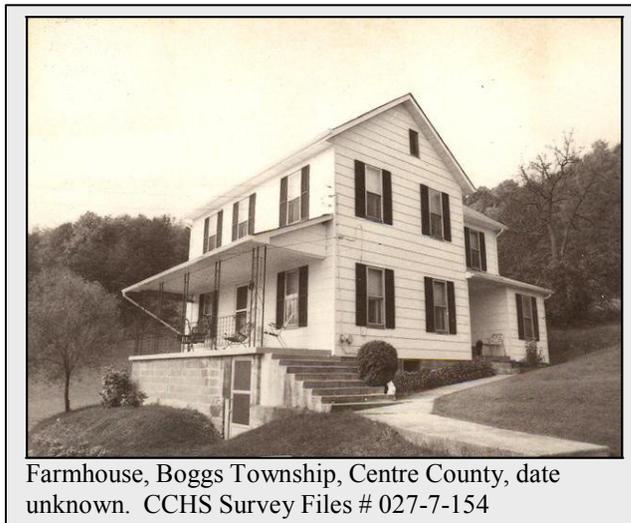
potentially significant, since it suggests that perhaps buildings, too, should be considered at least partly as communal resources.

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 typical for the region, 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.<sup>3</sup> 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.<sup>5</sup>

Regardless of differences in land tenure, farm labor was still performed largely by family members. Tax records list only one occupation, but it is likely that many men farmed and also worked at iron plantations. Dairying was unimportant in the region, so women’s farm work was likely focused on tending livestock, harvesting and processing grains and hay, and processing foodstuffs.

### **Buildings and Landscapes, 1830-1850**

#### *Houses, 1830-1850*



The typical rural housing to the west of the Allegheny Front was modest. Almost universally, the building material was wood – a natural choice considering the plentitude



Farmhouse, Liberty Township, Centre County, 19<sup>th</sup> century.  
CCHS survey files, photo 027-4-13

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.



Farmhouse, Rush Township, Centre County, 19<sup>th</sup> century. Site 027-RU-002.

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



Three-bay house with center door, Washington Township, Indiana County, c. 1840-60. Site 063-WAS-007.

*Barns, 1830-1850*

Really early barns (before about 1850) are rare in this region, though in Somerset County, a few fine early double-crib log buildings survived into the mid-twentieth century. Other early forms included 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.

*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 the region, 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 other regions. Few remnants of this landscape remain.

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## **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. 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 in localized areas. 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

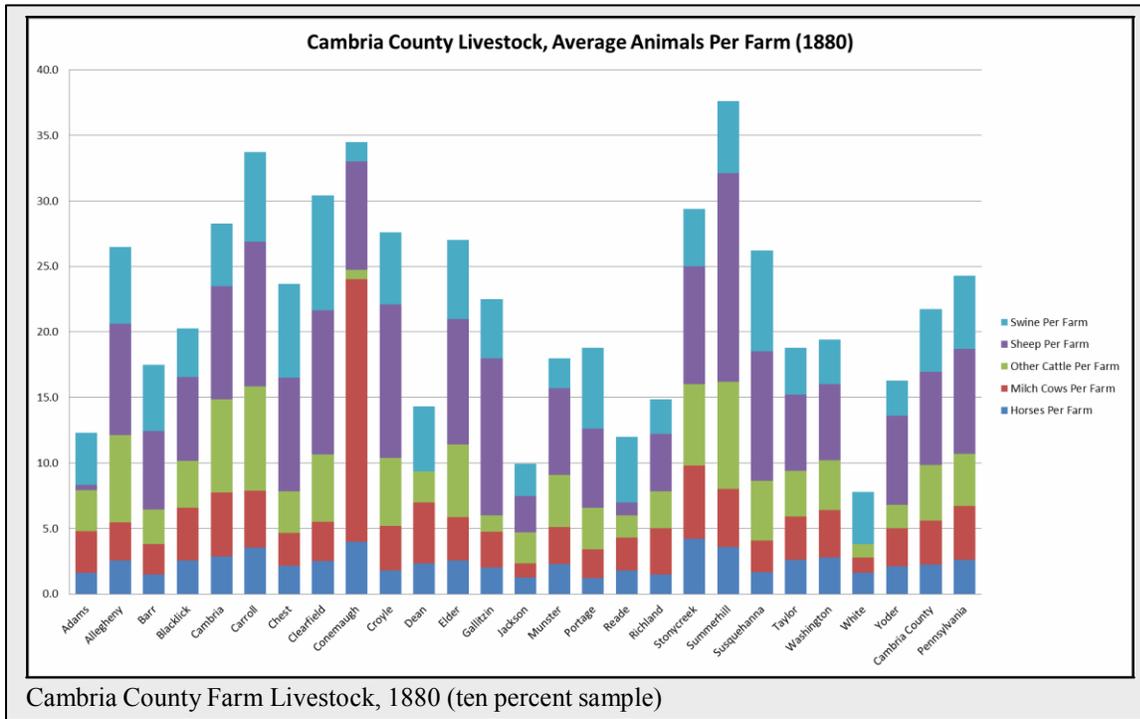
butter production at a corresponding subsistence level well under 200 pounds), and there were relatively few horses, consistent with a continued low level of mechanization in 1880. The watchword, as always, was diversification.

Industry shaped farming throughout the region, and farming's fortunes tended to rise and fall with those of industry. A variety of industrial and extractive pursuits developed in the region during this period. In Cambria County, for example, the most notable local factor was the iron and steel works at Johnstown. Nearby bituminous coal mines and coal/coke operations developed to serve the iron and steel industry. Throughout the county, ancillary industries such as firebrick manufacturing centers, quarrying, and lumbering developed to serve southwestern Pennsylvania's insatiable appetite for supplies. Often a single company dominated the economic life of a town, sometimes even down to supplying housing and food supplies. This was true in Johnstown and in smaller hamlets such as Patton (whose main employer was the Patton Clay Manufacturing Company, founded 1895) and Nanty Glo (a coal-patch town). To some extent, company-owned farms supplied local needs, but in Cambria County the census figures show a high overall rate of farm landownership. It is not clear, however, to what extent company-owned farms were included in the agricultural census.

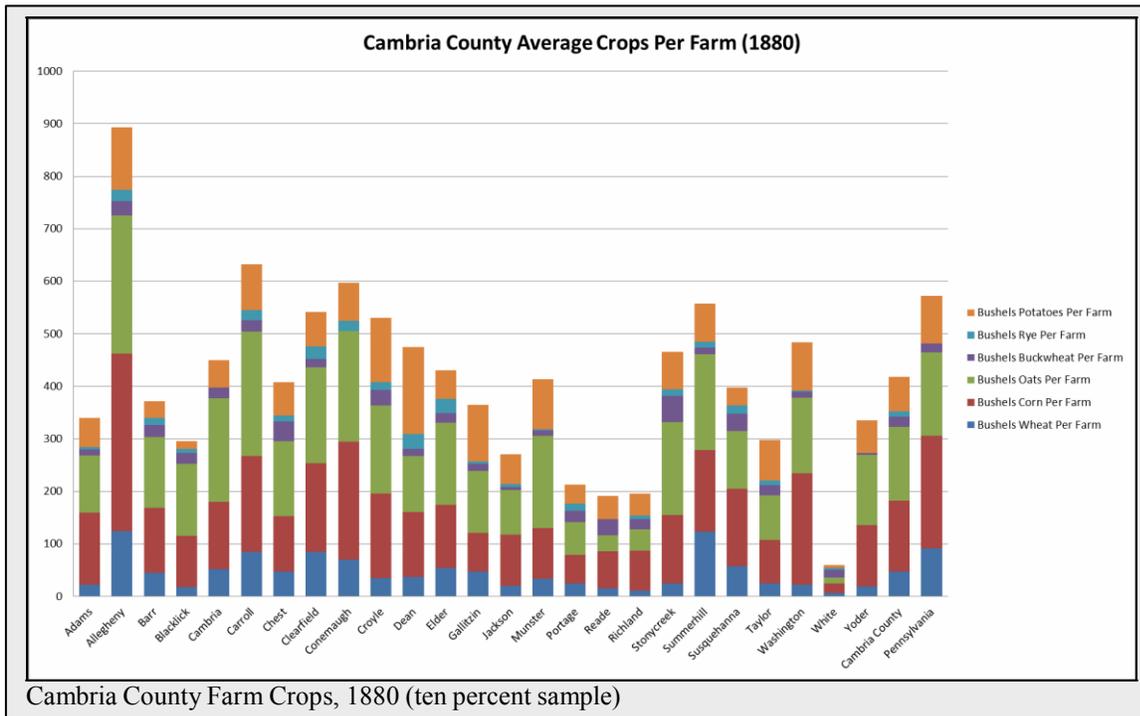
These basic economic realities shaped farming in the county in several ways. The first was that manufacturing districts provided ready markets for agricultural produce. The city of Johnstown and the numerous small boroughs in the county (not to mention Pittsburgh) had industrial populations in need of food supplies. Cambria County's farms catered to local demand by practicing small-scale diversified production for these markets. Hay and oats could be fed on the farm or to draft animals used in the mines. Brewers and distillers in the city needed grain. Human consumers bought dairy products, meat, poultry, eggs, fruit, and potatoes. Animals were brought to city butcher houses and sausage factories for localized processing. In the county, there were two areas where locally distinctive patterns emerged. In the 20<sup>th</sup> century, in the central townships of Conemaugh, East Taylor, West Taylor, East Carroll, and Clearfield, general farming was complemented by potato growing; farmers here devoted 2-10 acres to the crop.<sup>6</sup> Potatoes supplied a popular and inexpensive food for working-class customers. With these small acreages, farms would not necessarily have had dedicated potato-storage houses. Potatoes could have been stored in a house cellar, or in a barn. (See the Lehigh County potato context for information on how to detect barn alterations for potato storage.) In townships immediately adjacent to Johnstown (Stony Creek, Conemaugh, and East, Middle, and

West Taylor), in the early 20<sup>th</sup> century, truck farming supplied such items as vegetables, poultry, honey, cider, fruit, eggs, milk, and butter to a very local market.<sup>7</sup>

Fayette and Westmoreland's economy was dominated by intensive bituminous coal mining and coke production. By about 1910 there were 40,000 beehive coke ovens in the Connellsville coke region, making it a nationally important center. This position declined after 1916 when steelmakers needed their coke-making closer the plant in order to capture by-product gases. However, coal mining in the county continued.<sup>8</sup> Farming continued too, but was overshadowed by industry. The 1880 census shows that Fayette farms still produced about at the Pennsylvania average, with no one item stressed over others. Some observers complained that the fumes from coke production harmed orchard trees and crops.<sup>9</sup> Indeed, many farmers obtained income not just from agriculture but from coal seams, limestone deposits, or iron ore banks on their property. In 1889, for example, Benjamin F. Beal, of Menallen Township, Fayette County, owned "a valuable farm, well adapted to grain raising and grazing, ... underlaid with a good vein of coal."<sup>10</sup> Others combined farming with other occupations such as stock dealing, milling, and lumbering.<sup>11</sup>



Cambria County Farm Livestock, 1880 (ten percent sample)



Cambria County Farm Crops, 1880 (ten percent sample)

**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...”<sup>5</sup> 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 women than before. It also suggests that communal or collective patterns of labor exchange could have been unusually important in this context.

Throughout the region, farm people combined farming with industrial employment. In Centre County, for example, farming activity fluctuated inversely with the opportunity for employment in the local charcoal iron industry. 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...”<sup>12</sup> 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. 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.

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

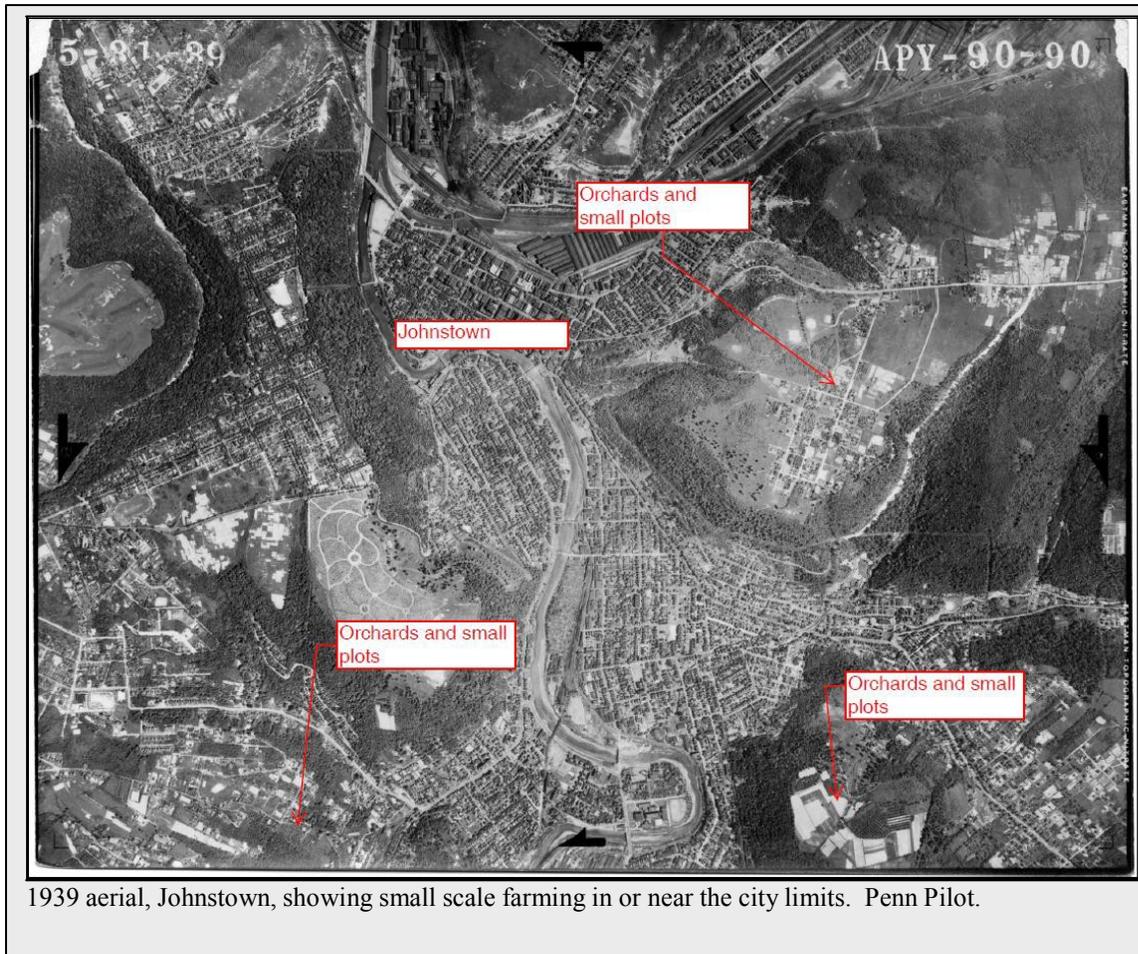
In Monument (Liberty Township) and Orviston (Curtin Township), Centre County, and other counties, company towns were established for the purpose of fire brick manufacture and other specialized industries dependent on local supplies. It does not seem that these industries had an impact on farm size – they were more concentrated – but they must have created markets.

Part-time farming in the region was shaped by immigration patterns. In the Johnstown area, for example, historian Ewa Morawska says there were small plots tended by immigrant “worker-farmers.” They rented plots from local farmers and used them to plant gardens and raise livestock for family subsistence, and they were mainly worked by women. She writes:

...the hills surrounding the ‘foreign’ sections of Johnstown were all farmland, crisscrossed by one- to two-acre plots that the immigrants leased from farmers (very often for free) and on which they erected little shacks where they kept chickens, pigs, or even a cow or two. The animals were tended to and the soil cultivated for beets, cabbage, turnips, potatoes, onions, parsley, and other produce. Chickens and geese were also kept in the foreign colonies inside the city; at night they stayed under the staircases or in the backyards, and during the day they walked among the houses. All this gave the area inhabited by the immigrants a distinctly semirural appearance.<sup>13</sup>

Sanborn maps and historic aerials give some evidence for these activities. The 1913 Sanborn map for Johnstown, for example, shows a small plot on the city’s outskirts (in Stony Creek Township) with a hot house, “farm,” (probably a barn) and house. Aerials from the 1930s seem to show that the houses and one small outbuilding still exist, but the rest are gone.





Though farm size and production varied significantly, ownership rates were much higher than in some portions of the state, 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, most 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.



Farmhouse, Rush Township, Centre County, c. 1915-40.  
Site 027-RU-003.



Farmhouse, Boggs Township, Centre County, c. 1900-1925.  
CCHS survey files # 027-7-144.

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



Foursquare house, Salt Lick Township, Fayette County, c. 1920. Site 051-SLK-003.



Centre-gable house with two-story ell and enclosed porch, Green Township, Indiana County, c. 1875.  
Site 063-GRN-003



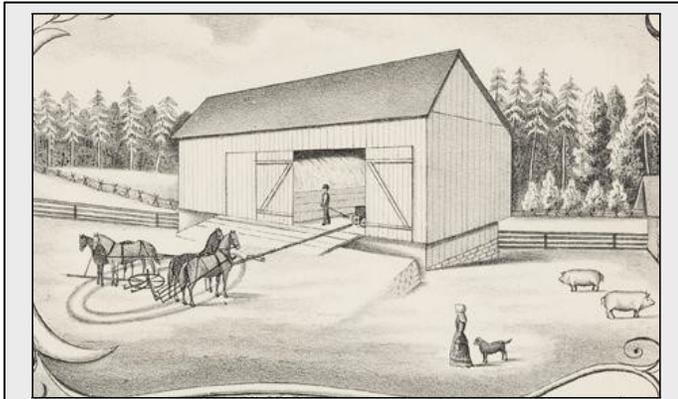
Farmstead with five-bay center door house, outbuildings, and basement barn, Green Township, Indiana County, mid to late 19th century. Site 063-GRN-001.



Enclosed forebay Pennsylvania Barn, Rush Township, Centre County. Site 027-RU-004.

*Barns, 1850-1920*

In the second half of the nineteenth century, barns became somewhat more elaborate. 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. 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.<sup>14</sup>



This picture shows a Sweitzer barn with horse-power. "Farm and Residence of Erastus Luther," from Craft's 1878 history of Clearfield County.



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



Barn with extended eaves-side shed, Limestone Township, Clarion County, c. 1870-1950. Site 031-LST-003.

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.<sup>7</sup> 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 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.

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 throughout western and southwestern Pennsylvania. These barns also probably reflect the varied ethnic origins of the population here.



Enclosed forebay Pennsylvania Barn, Boggs Township, Centre County, c. 1880-1920. CCHS survey files, # 027-7-144.



Barn (type unclear) with enclosed eaves side, Salt Lick Township, Fayette County, c. 1890-1920. Site 051-SLK-004.

*Outbuildings, 1850-1920*

The characteristic outbuildings of the earlier era – smokehouse, springhouse, summer kitchen, privy, pig shed, and root cellar – 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. HABS documented many of these buildings on the Levi Springer farm in Fayette County, which dates mainly to the 19<sup>th</sup> century.<sup>15</sup> Also in Fayette County, the Ohler farmstead, also documented by HABS, dates from the early 20<sup>th</sup> century and is said to have represented well the “subsistence farming and vernacular construction of The Industrial Period as found in the Bear Run Community.”<sup>16</sup> One notable building type mentioned in source material is a “coal shanty” or “coal house.” The Vankirk farm near Brownsville had “a coal house that holds 1,000 bushels of coal” in the 1880s.<sup>17</sup> A Pennsylvania Historic Resource Survey form for the Newmyer farm mentions a coal shanty. This family mined coal and farmed.



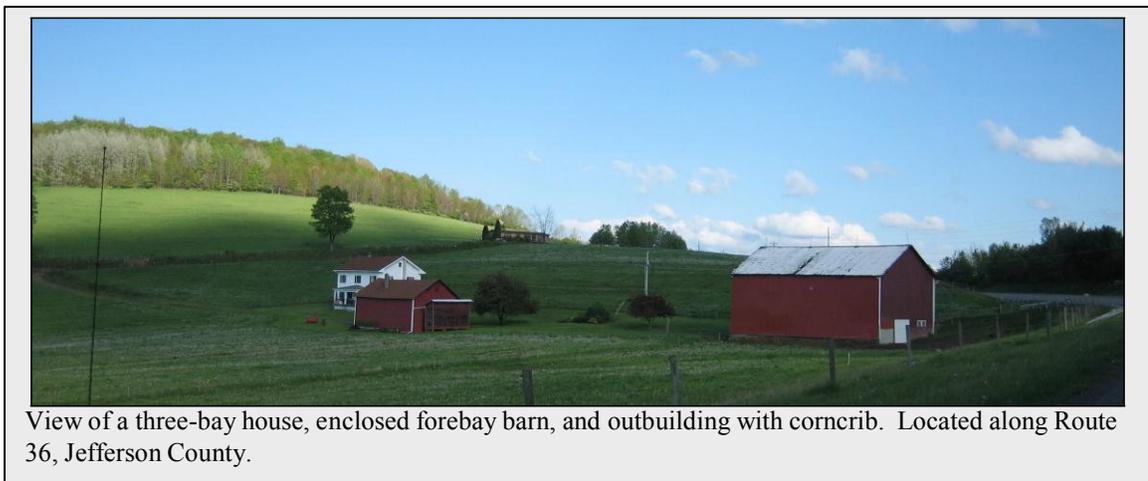
Springhouse, Rush Township, Centre County, date unknown. Site 027-RU-004.



Summer kitchen/butcher house, Rush Township, Centre County, c. 1890-1920. Site 027-RU-004.



Outhouse, Rush Township, Centre County, date unknown. Site 027-RU-004.





Spring house, Salt Lick Township, Fayette County, c. 1900. Site 051-SLK-005.

*Landscape features, 1850-1920*

By this point the apex of clearing had been reached. Fields were small and irregularly shaped. 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.



Crop field, post and wire fence, and tree line, Salt Lick Township, Fayette County, date unknown. Site 051-SLK-004.



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## 1920-1960: Diverse Production, Depression, and Part-Time Farming

### Products, 1920-1960:

In general, agriculture in the region struggled during these years. Agricultural depression coupled with industrial decline and upheaval to make farming a daunting proposition. However, there were pockets where farming was viable because of urbanization or other economic development. Overall in the region, farming either continued the previous pattern of combining farm work with industrial wage labor, or took the path of greater specialization, larger scale, and commercialization.

The integration of road and rail networks in this period, coupled with the rise of large urban markets on the eastern seaboard, brought some portions of the region into the eastern “milksheds.” Milk “stations” were established in Howard and in Bellefonte in

Centre County, for example. 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 as coal-patch and regional cities grew (Clearfield, Indiana, etc.) Besides the milk sales, marketing outlets included personal sales to neighbors, huckstering, and dealers. Dairying and truck farming also developed on the periphery of industrial cities like Johnstown and Altoona, and in places with access to Pittsburgh. The number of milch cows per farm increased in these places, 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. Families continued to raise more hogs than they needed for their own use, and often one or two steers as well.

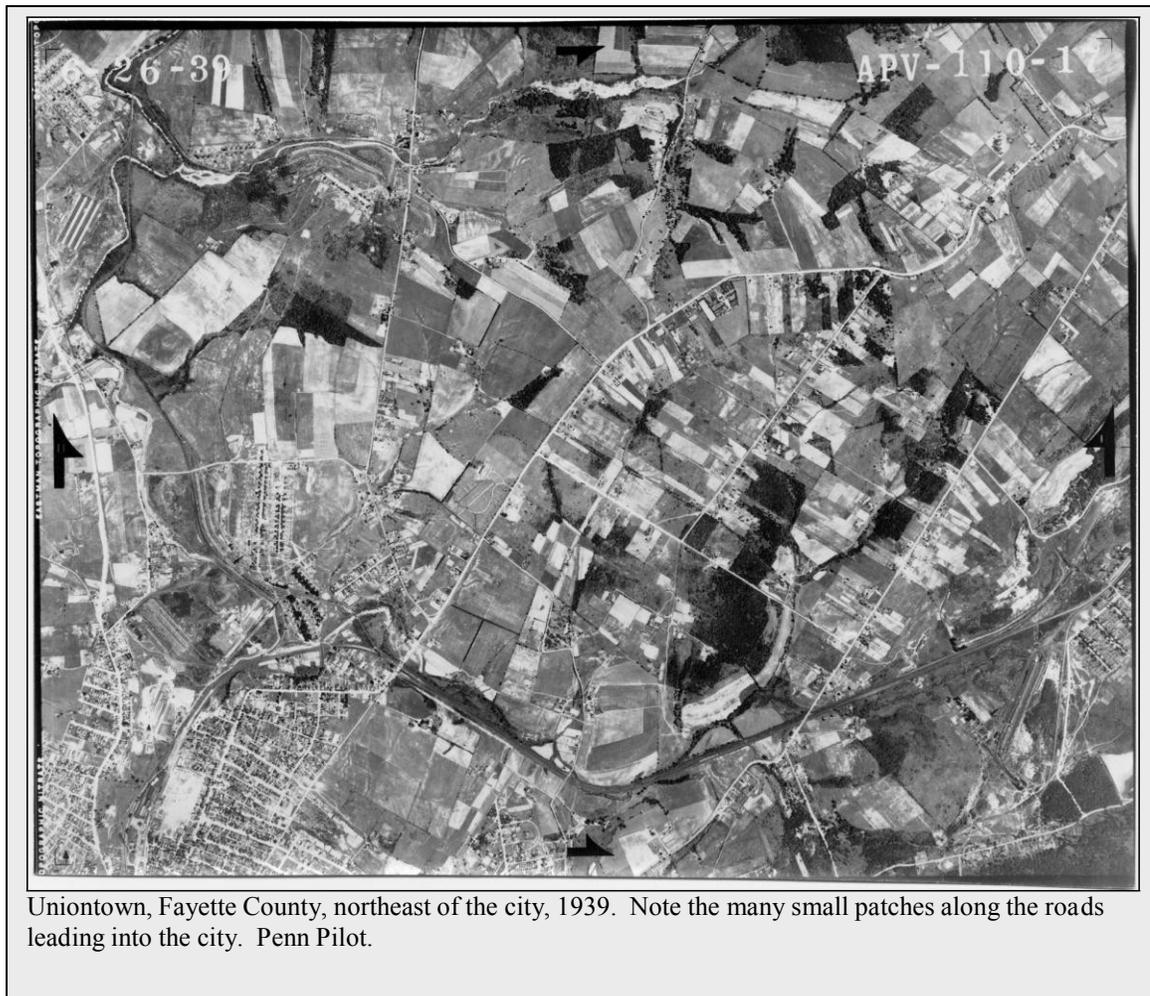
In the more remote areas lacking access to large markets, agricultural patterns tended to stress very small scale and production for family subsistence rather than markets. In Rush and Snow Shoe Townships, Centre County, for example, farms averaged a total of thirty or fewer acres in 1927. This was a 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 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.

Indiana, Clearfield, and Westmoreland Counties were chosen as study sites for a survey of part-time farming in six industrial areas of Pennsylvania, published in 1938.<sup>18</sup> The increased visibility of part-time farming was probably due to several factors. Agricultural and industrial depression made it difficult to gain a living from just one activity; so farmers sought off-farm work, and workers sought security in access to land. In 1955, an economic survey of the county noted that “In past years it has been traditional for miners and other workers to acquire several acres of land for subsistence purposes, especially in times of limited work.”<sup>19</sup> With 56% of farm operators in 1950 reporting that their off-farm income exceeded farm income, Fayette ranked near the top of the state in that dubious category. Conversely, especially after the Second World War, the cost-price squeeze forced many farming people to seek wage work to supplement their dwindling farm income. For these reasons part-time farming attracted increasing attention from agricultural economists and social scientists.

Fayette and Westmoreland were among the Pennsylvania counties hardest hit by the Great Depression. Hard times had already predated the general Depression by a decade. Demand for coal and steel dropped after World War I, then bitter strikes rocked the region. The regional rural economy never really recovered except for a brief uptick during the second World War. The 1927 state census showed that county farms had dropped well below state averages in every category. The agricultural extension agent in Westmoreland reported that there were 16,000 “Unemployment gardens” started in 1934. This is a huge number by any reckoning. By 1957, a study characterized Fayette County as a “low income” farming area with a declining coal industry.<sup>20</sup> The study claimed that a few successful farms emphasized truck, dairy, grain, cattle raising, and pursuits carried on a small scale.<sup>21</sup> In Westmoreland County, for example, reportedly there were a thousand beekeepers in 1940.<sup>22</sup>



Latrobe, Westmoreland County, 1939. Note the many small plots within the river bend to the northwest of the city, and on the eastern borders of the city. Most of these areas are now filled in with development or reforested. Penn Pilot.



Uniontown, Fayette County, northeast of the city, 1939. Note the many small patches along the roads leading into the city. Penn Pilot.

Conditions were so severe in the southwestern portion of the region that Fayette County and Westmoreland Counties became sites for famous New Deal era experimental subsistence communities. Norvelt (named for EleaNOR RooseVELT), in Westmoreland County was funded by government programs, and Penn-Craft (in Fayette County), was supported by private funds and administered by the American Friends Service Committee. The settlements were planned and built with the goal of creating a self-sufficient homesteading community for unemployed [male] workers and their families. The settlements attracted much attention both positive and negative, but as agricultural endeavors they had little impact. Local people were already pursuing part-time farming and gaining support through ties of kinship, nationality, and neighborhood.<sup>23</sup>

Somerset County generally conformed to patterns in the wider region. Large coal mining operations in towns like Windber generated local markets for surrounding farms. In two respects, Somerset was different. Its leadership in maple sugar and syrup making continued, though diminished. The sugar camp and sugar bush were therefore more

common in Somerset than in other parts of the region. Second, by 1927, Somerset was the only county outside the dairy regions with significant numbers of silos and acreage of corn grown for silage. The central townships had begun to intensify their dairying activity, and silos were especially useful in Somerset because of its high elevation and harsh climate.<sup>24</sup>

Indiana County also developed a distinctive agricultural niche. The county became known for Christmas trees. Indiana County today claims to be the "Christmas tree capital." Commercial Christmas tree production did not really get going until the 1920s and 30s. Prior to that, people cut trees from their private woodlots, or sometimes from state woodlands. No firm historical data have yet been found to confirm the number of specialized farms. This is because Christmas tree production straddled a line between forestry and farming, and because official statistics were not kept until fairly recently. However, it seems clear that the impetus for commercial-scale Christmas tree farming originally arose when a mine owner near Indiana planted trees on mine waste land. By 1943 the agricultural extension agent claimed that the county ranked first in Christmas tree production. Fieldwork in Indiana County in 2007 located a few specialized Christmas tree farms. It did not seem as if there were a large number, though. Notably, however, on several sites that were documented, there were woodlots planted to Christmas trees. A tentative conclusion would be that Indiana County's reputation for Christmas tree production owes as much to many farmers with small lots, as it does to large scale specialized commercialized growers.



Brothersvalley Township, Somerset County, 1939. The patches of scattered trees may be sugar bushes. Typically the sugar maple stands were managed to reduce underbrush and winnow competing tree species. This identification is not definite. Penn Pilot



Marie Johnson milking, Johnson-McKinley Farm, 1930s. Franco Collection, CCHS.

### Labor and Land Tenure, 1920-1960



Butchering, Johnson McKinley farm, 1920s.  
Franco Collection, CCHS.

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 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.

The part-time nature of farming in the region definitely influenced labor patterns. According to the 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.<sup>9</sup> Men tended to commute to work in the coal fields, refractory brick plants, railroad, etc. while women did over half of the farm work. (This may be an underestimate, as it probably doesn't count work such as taking in boarders). Compared with other parts of the state, farm work was relatively unmechanized. However, the gap with the other regions was less noticeable when it came to modern labor-saving conveniences such as heating systems, electrification, radios, and indoor plumbing: few Central Pennsylvania farms anywhere had these.

Compared with other regions, tenancy rates were low (usually less than 20 percent). This probably reflected the lesser value, smaller size, and heterogeneous ethnic origin of farms in the Allegheny Mountain region.

### **Buildings and Landscapes, 1920-1960**

#### *Houses, 1920-1960*

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.



Photo of a new brick house under construction, Boggs Township, Centre County, 1935. Franco Collection, CCHS.

#### *Barns, 1920-1960*

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.



Barn, Liberty Township, Centre County, date unknown. CCHS survey files #027-4-27b.



Large three-gable barn and tile silo, Boggs Township, Centre County. Site 027-BO-004.



Barn with extended forebay, Boggs Township, Centre County, date unknown. CCHS survey files #027-7-154.



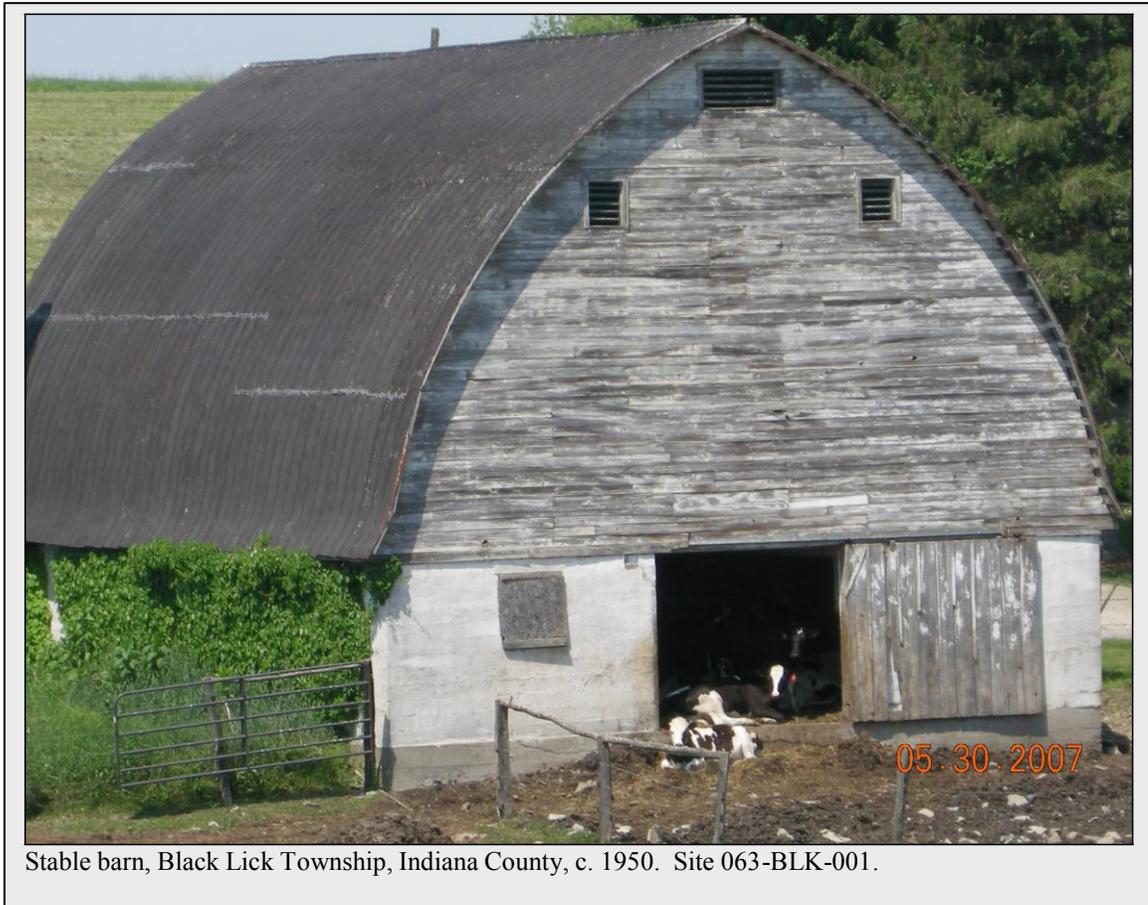
Barn, Boggs Township, Centre County. CCHS survey files #027-7-70.



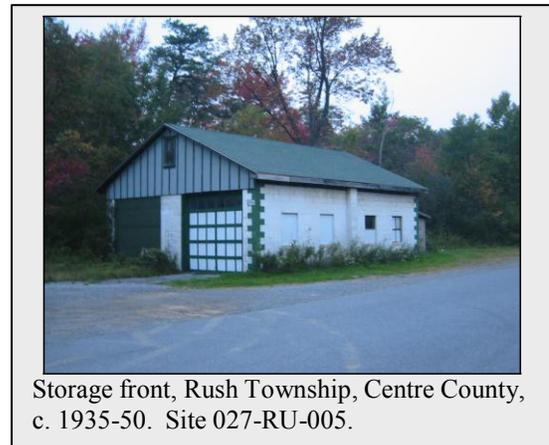
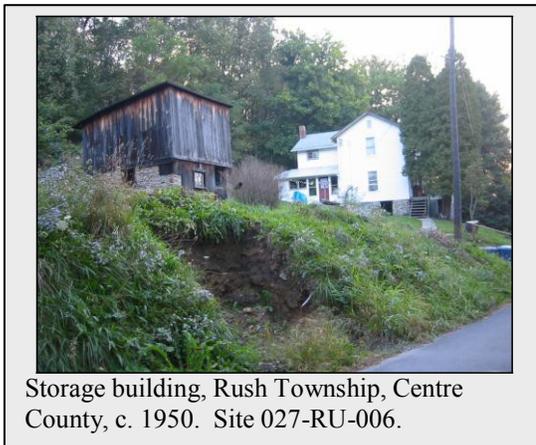
Barn with exaggerated downslope extension, Rush Township, Centre County, early 20<sup>th</sup> century. Site 027-RU-002.



Stable barn, Boggs Township, Centre County, c. 1940. Site 027-BO-002.



### *Outbuildings, 1920-1960*



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. Summer kitchens continued in use. 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. 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. Poultry facilities were common here as elsewhere.



Corn crib, Boggs Township, Centre County, mid 20<sup>th</sup> century. Site 027-BO-002.



Concrete block milk house, Liberty Township, Centre County, early 20<sup>th</sup> century. CCHS survey files #027-4-27b.



The chicken house in the lower left of this photo was on skids so it could easily be moved, Johnson-McKinley farm, Centre County. CCHS, Franco Papers.



Root cellar, Limestone Township, Clarion County, c. 1930. Site 031-LST-001.



Milk house, Black Lick Township, Indiana County, c. 1935-50. Site 063-BLK-002.



Milk house made of glazed hollow brick, Limestone Township, Clarion County, c. 1935-50. Site 031-LST-002.

Machine sheds tend to be smaller than in more highly mechanized farming areas. A few silos appeared as dairying gained hold, generally after 1930.



Machine shed/garage, Rush Township, Centre County, c. 1925-50. Site 027-RU-004.



Rare photo of silo being erected, Boggs Township, Centre County, 1930s. CCHS,

Summer kitchen of glazed hollow brick,



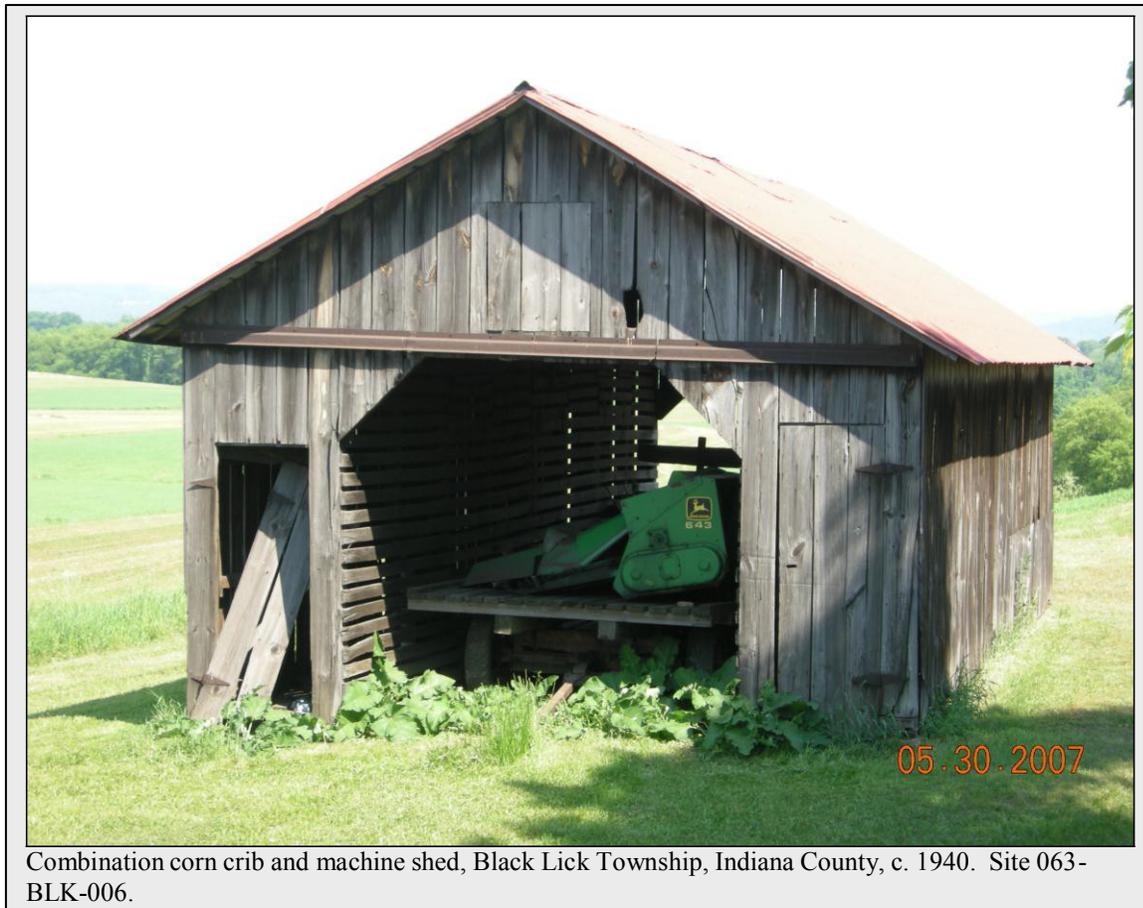
Summer kitchen of glazed hollow brick, Limestone Township, Clarion County, c. 1930-50. Site 031-LST-005



Poultry house, Limestone Township, Clarion County, c. 1940. Site 031-LST-003.



Basement barn with wood stave silo, Unity Township, Westmoreland County, barn c. 1900, silo c. 1925. Site 129-UNI-001.



### *Landscape Features, 1920-1960*

Landscape features in the areas with larger more commercial sized farms 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, Boggs Township, Centre County, 1930's. CCHS, Franco Collection.



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



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

In the more industrial sections 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 Merritt 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.

Armstrong, Butler, Jefferson, and Clarion Counties: Here, the interpenetration of industry and agriculture was very common, as it was elsewhere in the region. Here it was typified more oil and natural gas extraction as well as coal mining. Survey work done in Salt Lick, Clearfield and Forward Townships (Butler County) and Limestone Township (Clarion County) documented a mixture of buildings and landscapes that did not vary significantly from those described in the original MPDF. Jefferson County's admixture of mining and farming is well documented in the Library of Congress's FSA/OWI collection.



Mine workings, Merritt Bundy Farm, Clearfield County, 1944. FSA/OWI photo, Library of Congress, Jack Delano photographer, Digital ID fsa8c03033.



Knees Farm, Clearfield County, 1940. FSA/OWI photo, Library of Congress, Jack Delano photographer, Digital ID fsa8c02939.



Gas well in pasture, Black Lick Township, Indiana County, 2007. Site 063-BLK-003.



Contour strips and woodlot, Black Lick Township, Indiana County, 1930-50. Site 063-BLK-004



Evergreen windbreak, Black Lick Township, Indiana County, date unknown. Site 063-BLK-004.



Small woodlot with evergreens, Green Township, Indiana County, 2007. Though recent, this planting may be connected with historic patterns of Christmas tree production in the county.

## **Property Types and Registration Requirements – Criterion A, Agriculture**

Property Types: These property types apply to properties in all regions.

### **Farmstead**

A farmstead is defined here as encompassing the farm dwelling[s]; barn; outbuildings; and the immediately surrounding land on which these buildings are situated. It normally excludes cropland, meadow, pasture, orchard, and woodland, but would include such landscape features as yards, windbreaks, ponds, gardens, ornamental trees, decorative fences, driveways, etc.

### **Farm**

A farmstead plus crop fields, meadows, pastures, orchards, woodlots, etc., including landscape features such as fences, tree lines, contour strips, streams, etc. and circulation networks.

### **Historic Agricultural District**

A group of farms which share common architectural and agricultural landscape features; are linked together by historic transportation corridors, including roads, railroads, paths, and/ or canals; and together express characteristic features of local historical agricultural patterns.

## **A. Criterion A, Agriculture**

This section first outlines general consideration for Pennsylvania as a whole, with reference to considerations related to labor, gender, and tenure. These are followed by Criterion A requirements for each region and subregion.

### **General Considerations for Pennsylvania as a Whole**

National Register eligibility with respect to agriculture in each Historic Agricultural Region of Pennsylvania will depend upon how well a given property reflects the historical farming system in that region. It is very important to remember that Criterion A significance should be assessed in relation to how a given property typifies a farming system, not in relation to whether a property is exceptional or unusual. A property should exemplify a farming system in all its aspects. The totality of a property's representation

in the areas of production, labor patterns, land tenure, mechanization, and cultural traditions will determine its National Register eligibility.

### **Historic Patterns of Agricultural Production**

A key characteristic of Pennsylvania agricultural production from settlement to about 1960 is diversification on small, family farms. Therefore, a farmstead, farm, or historic agricultural district must reflect diversified agriculture through a variety in historic buildings and landscape features. It is critical to note that diversified agricultural production involves two facets:

1) a mix of products. This mix varied with time, place, and culture. For each region, the narrative explains the prevalent mix.

-AND-

2) a variety in use for those products, ranging from direct household consumption, to animal consumption, barter exchange, and cash sale to local or distant markets. In general, as far as use is concerned, over time a larger proportion of products went to cash markets, and money figured more and more prominently as farm income. However, production for family consumption, animal consumption, and barter exchange continued to occupy a significant position well into the twentieth century, with a notable surge during the Depression years. Historic resources should reflect the variety of household and market strategies employed by farming families.

### **Social Organization of Agricultural Practice**

Historic production patterns are necessary but not sufficient to determine eligibility. Social organization of agricultural practice had a profound influence on the landscape that must be recognized. Labor, land tenure, mechanization, and cultural practice should be considered. For example, in the Central Limestone Valleys, share tenancy was an important and enduring practice that significantly influenced the architecture and landscape of farmsteads, farms, and farm districts. In the Northern Tier, conversely, high rates of owner-occupation lent a different appearance to the landscape. The level of mechanization was related to labor practices, and also shaped the landscape through field patterns and architectural accommodation (or lack thereof) for machinery storage. Insofar as cultural factors influenced agricultural production or practice, they should be taken into account in determining the eligibility of farmsteads, farms, and farm districts. For example, Pennsylvania German food ways may have influenced agricultural production patterns and hence architectural forms; Yankee/Yorker families brought with them the English barn (which, because of its organization, shaped farming practice) and the penchant for classical revival styling.<sup>25</sup>

### **Issues of Chronology**

To be determined significant with respect to Criterion A for agriculture, a farmstead should either:

1) possess a strong representation of typical buildings and landscape features from one chronological phase of the region's agricultural history,

-OR-

2) possess a strong representation of typical buildings and landscape features that shows important agricultural changes over time.

### **How to Measure a Property in its Regional Context**

Whether it depicts one chronological period or change over time, a farmstead, farm, or historic agricultural district will normally be significant under Criterion A only if:

1) its individual production, for the period in question, reflects the average or above average levels for its township in the same period. (This can be determined by comparing the farm's manuscript agriculture figures to township figures.)

2) its built environment reflects that product mix. (The Narrative explains how different agricultural building types relate to agricultural production.)

3) its built environment reflects locally prevalent social organization of agriculture including a) levels of mechanization, b) labor organization (including gender patterns) and c) tenancy.

3a) levels of mechanization: in highly mechanized areas (relative to the state levels) we would normally expect an array of machine sheds, machinery bays integrally placed in barns, horse-power extensions, etc.<sup>26</sup> Conversely, in low-mechanization areas such as the Northern Tier, these facilities will likely be less visible.

3 b) labor organization: Patterns of collective neighborhood labor may be present; for example, a butcher house might be located near the road. For early phases of agricultural development, we would not expect to find overt architectural accommodation for hired laborers. But in the wage-labor era, those expressions would range from accommodations on the farm (rooms over springhouses, wings of houses) to purpose-built migrant housing. Mechanization could affect labor organization because it eliminates workers. Architectural and landscape elements that illustrate

patterns of labor organization should be assessed for significance (with respect to agriculture) based on the level of clarity, intensity, and chronological consistency with which they show labor patterns. For example, if a c. 1850 farm house has a c.1880 workers' wing with back stair and no access to the family living area, that is both a clear and chronologically consistent illustration of shifts in hired labor's status.

Establishing significance for the gender organization of labor is more complex. We could think in terms of a continuum: from work almost always done by men—to work almost always equally shared by men and women – to work almost always done by women. In general, the farmstead and even the farm should be regarded as a mixed-gender workspace, because so much farm work was shared. However, there are a few cases where work was not only clearly associated with either men or women, but also had spatial and architectural manifestations to match. So we should focus on these cases when assessing significance with respect to gender patterns of agricultural labor. In the regions under discussion here, besides work done in the house (by women), several cases fit these criteria. On Northern Tier farms (1830–1900), men generally milked, and women made butter; the former activity occurred in the barn, the latter either in a farmhouse ell or in a separate “dairy kitchen” sited between house and barn. Later, fluid milk sale (mainly organized and conducted by men) replaced home butter making. Some sort of facility for home dairying is a *sine qua non*; one that is sited and oriented efficiently with respect to house and work-yard would be of greater significance than one that was not. And, a farmstead that contained both an ell or kitchen and a milk house located by the barn would demonstrate the shift in gender patterns better than a farm with just one of each. Another important case is pre-1945 poultry raising, which was dominated by women. If a pre-1945 poultry house is located well within the house's orbit, it suggests that expresses more significance with respect to women's agricultural labor than a pre-1945 poultry house that sits on the edge of a field. And, if a farmstead has both a pre-1945, small poultry house located between house and barn, and a large, post-1945 poultry house sited far from the house, this illustrates changes in gender patterns better than a farmstead that has only one poultry house.

3 c) Tenancy: This aspect of social organization will be reflected most in historic agricultural districts (rather than on farmsteads or farms). A historic agricultural district should reflect prevalent levels of tenancy for its region. So, we would expect to see fewer documented tenant properties in Northern Tier districts than in a Central Limestone valleys district. Where individual farms or farmsteads are concerned, a farm or farmstead with a documented history of tenancy are significant for tenancy, but only in regions where tenancy rates were historically higher than the state average.

### **Cultural Patterns**

If, in instances where a farm has a strong, documented connection to a particular ethnic group, its architecture and landscape should show evidence of that connection. [See Narrative for discussion]. Significance should be evaluated by the degree of clarity with which ethnic heritage is expressed (i.e. is it highly visible in more than one way, for example in both construction details and use?); and in cases of farmsteads, the extent to which multiple buildings and landscape features express ethnically derived agricultural practice.

In every case, even where all of these substantive requirements are met, there will be degrees of quality in representation. In other words, it is not just the presence of links to the region's agricultural history (i.e. the overall property's integrity) that makes a property outstanding, but also the quality and consistency of those links. Where possible, nominations should attempt to assess what we might call "intensity" or "layering" of representation. This intensity of representation may appear in the way the farm's component parts preserve historical relationships. For example, if a farmstead retains a springhouse near the main house and a milk house sited near the barn, that is an especially intense illustration of changes in the dairy industry. The idea of "layering" connotes the multiple meanings that can be contained in the siting, layout, and content of the architectural and landscape features. The farmstead and farm features together might, for instance, offer expressions that are simultaneously cultural and local, and also show how wider trends affected agriculture. For example, a Northern Basement Barn indicates cultural heritage (in placing an "English barn" above a basement) and agricultural change (in dairying-oriented basement level). Another example of "layering" could be if the economic and cultural importance of livestock is illustrated by several buildings and landscape features – not just one or two. And, there could be a variety of farm workspaces that testify to the diversified strategies historically pursued by farming families in the region.

When assessing agricultural change, remember to consider not only changes in barn, outbuildings, and landscape, but also in the farmhouse. For example, on a farm where large-scale production was accompanied by a shift in gender patterns of labor, look for changes in the farmhouse's interior work space; typically these might include smaller, more isolated kitchen spaces and more spaces devoted to display or leisure. Or, where dairy processing became centralized, dairy dependencies attached to a house might be converted to other uses. Rural electrification and the shift away from wood for fuel could also affect interior farmhouse organization. For example, with electrification, the summer kitchen's function often moved back inside the house.

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## Registration Requirements Specific to the Allegheny Mountain Part-Time Farming Region

A. A property may possess a strong representation of typical buildings and landscape features from one chronological phase of the region's agricultural history

To represent the period 1830-1850 ("Diversified Farming and Small-Scale Industry") in the Allegheny Mountain Historic Agricultural Region,

A farmstead should include at minimum a dwelling and outbuilding dating from the period. A farm should include the farmstead elements named above, plus significant acreage with at least traces of field patterns, fencing, boundaries, pathways, streams, or woods. A historic agricultural district should include contiguous or clearly connected farmsteads that share visual, landscape, and architectural characteristics. It is unlikely that a historic agricultural district in this region will only illustrate this early period.

To represent the period 1850-1920 ("Diversified Farming and Large-Scale Industry") for the Allegheny Mountain Historic Agricultural Region,

A farmstead should include at minimum a dwelling, a barn typical of the period, and at least two outbuildings typical of the specific area and dating to the period. A farm should include the farmstead elements named above, plus acreage of the original farm tract; and at least two relict landscape elements such as traces of field patterns, mine shafts, fencing, boundaries, streams, or woods. A historic agricultural district should include contiguous or clearly connected farmsteads that share visual, landscape, and architectural characteristics from the time period. Not every property in a district must possess all of the required elements, but collectively the district should show them all. For example, there might be a cluster of farms near a mining patch town, which retain dwellings, barns, outbuildings, fields, and fencing, all connected by the road that leads to the mine town. A few, but not all, of the farms may retain a small-scale mine shaft.

To represent the period 1920-1960 ("Diverse Production, Depression, and Part-Time Farming"),

A farmstead should have at minimum a dwelling and one outbuilding or structure. For farmsteads associated historically with dairying in urban milksheds, dairy barns,

alterations, and milk houses should be present. A farm should have a small remaining acreage, and include some relict landscape features such as treelines and fields. For townships in dairy milksheds, greater farm acreage should be present. A historic agricultural district should include contiguous or clearly connected farmsteads that share visual, landscape, and architectural characteristics. Farms within the district need not all possess all required elements, but collectively they must illustrate the period clearly. For example, perhaps an enclave of immigrants farmed small plots near an industrial town.

B. Properties may also possess a strong representation of typical buildings and landscape features that shows important agricultural changes over time. Most properties will likely fall into this category. Because change could have many manifestations, the following is intended as a guide, not a recipe. It should be noted that in illustrating change over time, a farmstead, farm, or historic agricultural district may contain resources from the period of settlement.

A **farmstead** could show change over time through the presence of one or two early buildings (probably most often a dwelling); and presence of later of agricultural buildings (for example, a 19<sup>th</sup> century barn, a 20<sup>th</sup> century silo and milk house) which reflect the agricultural shifts described in the narrative above. In the case of dairying areas, there should be outbuildings that reflect the diversified phase of the 19<sup>th</sup> and early 20<sup>th</sup> centuries (smokehouses, spring houses, etc) and the shift to fluid milk dairying in the middle decades of the 20<sup>th</sup> century (silo, milk house). A farmstead could also show change over time in alterations to dwellings and agricultural buildings. For dwellings, this might mean ell additions, porches, the disappearance or reuse of productive spaces such as summer kitchens; for barns, it could mean additions for more space, windows for more light, reorientation of stalls, addition of hay tracks, etc. In any case, there should be sufficient built evidence to interpret the diversified history of agriculture in this farming region, and to interpret the key labor, ethnic, and social systems that were an integral part of the farming system. Thus in this region, there should be outbuildings that can be effectively related to family labor, including women's labor.

A **farm** could show change over time through farmstead changes as described above; plus consolidation of fields; introduction of mine shafts; renegotiation of boundaries; evidence of shifting crop or livestock management practices (for

example contour stripping and old pasture).

A **historic agricultural district** could show change over time by assembling a number of farms that themselves illustrate agricultural change, or by assembling farms each of which represents a different time period.

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## **Property Types and Registration Requirements – Criterion B, Association with the lives of Significant Persons**

These requirements apply to properties in all regions. To be eligible under Criterion B, a farmstead, farm, or historic agricultural district must establish a documented link to an individual who had a sustained and influential leadership role which resulted in a verifiable impact on local, state, or national agricultural practices, trends, or thought. A “sustained” leadership role would mean long-term involvement in important agricultural organizations such as the Grange, Dairymen’s League, rural electric cooperative, and so on. Impact should be demonstrated, not asserted. An agrarian figure who achieved a higher than usual degree of productivity or prosperity in farming would not normally meet this standard, nor would one who was an early adopter of new agricultural methods or technologies. But, an individual who influenced others to adopt new practices could. For example, Robert Rodale clearly played a foundational role in the rise of the organic farming movement nationally. On a more local level, a hatchery owner who initiated a new industry in an area, thus creating a shift in production patterns on many farms, might qualify.

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## Property Types and Registration Requirements – Criterion C, Design and Construction

These requirements apply to properties in all regions. Typical examples are encouraged to satisfy Criterion A for agriculture, but average or ordinary examples are not likely to qualify under Criterion C for Design and Construction. A farm or farmstead will not be eligible under Criterion C simply because it has farm buildings that retain integrity. Under Criterion C, to be eligible as property must exhibit the “distinctive characteristics of a type, period, or method of construction or that represent the work of a master, of that possess high artistic values, or, as a rural historic district, that represent a significant and distinguishable entity whose components lack individual distinction”.<sup>27</sup>

This MPDF follows the evaluation models established by the 1992 MPDF *Farms in Berks County* and the 1994 MPDF *Historic Farming Resources of Lancaster County*, which defines standards for architectural significance of farm buildings as "a rare or intact example of a period, style or type" or as a “noteworthy example of a particular building type ...”.<sup>28</sup> To be eligible under Criterion C for Architecture, a farm building, farmstead, farm, or historic agricultural district must possess physical characteristics that specifically reflect aesthetic, cultural, craftsmanship, or production values associated with regional agriculture and rural life. Farm buildings and structures must exhibit qualities of design, workmanship, and artistic merit that are tied to the period of construction.

This document explains the specific Criterion C issues that apply to farm buildings and structures. Criterion C relates to significance primarily for Architecture, Art, and Engineering. While most farm structures will not be evaluated individually, structures notable for their construction technology or design may factor into the Criterion C significance of a property.

Evaluation conventions for the architectural style of dwellings are well established so they are not covered here. However, what constitutes architectural significance for farm dwellings and agricultural buildings and structures in the area of Agriculture is less widely defined.<sup>29</sup> This section lays out some considerations for how to assess architectural significance for farm buildings and structures based on their engineering and design characteristics related to agriculture.

As with any other architecturally significant building type, resources must conform closely to the seven aspects of integrity. Significance must be demonstrated, not merely asserted.

*What does qualify as a significant design?*

A barn might qualify if its design reflected essential characteristics of specific barn types, such as Pennsylvania bank barn, Stable barn, English Barn etc. (The salient architectural features of each type are defined within the narratives that accompany this MPDF.) The significant elements of barn layout (location of threshing floors, hay mows, stables, granaries; typical interior organization for a given type; vertical work-flow arrangement where relevant) should retain integrity. The same would be true for outbuildings, for example if a granary or spring house retained essential characteristics of its type. A house, barn, or outbuilding that has been altered or modified to accommodate changing maintenance habits, popular taste, or the convenience of the farmer would not be considered significant unless the new features are demonstrably tied to regional patterns in agricultural buildings and the built environment for the period of significance. For instance, a mid-19th century vernacular farmhouse that was Colonial Revitalized in the early 20th century might be significant for its stylistic features outside this MPDF but would not be architecturally significant under this MPDF because the alterations are not associated with the needs and priorities of farm life. But a farmhouse modified to reflect important transitions in the relationships of farm family members to each other, labor, or the market could be considered significant (such as the addition or removal of quarters for hired hands, cooking facilities for feeding threshing crews, social spaces separated from spaces devoted farm matters, etc). Changes reflecting access to modern amenities and willingness to adopt modern amenities could also be considered significant, such as the addition of a bathroom, running water, a heating plant, or electrification. However, the design features reflecting these changes must be demonstrated to be part of a local or regional pattern of construction; individual, personalized or idiosyncratic alterations that lack design features not adopted elsewhere in the community would not be considered significant under Criterion C, but would support significance under Criterion A for their association with labor and production patterns. In the post-World War 2 era, many farmhouses have undergone dramatic changes in ways that make them indistinguishable from contemporary suburban residences in their materials, styles, amenities, and use. Thus it will be difficult to evaluate the Criterion C significance of post war farmhouses without further study.

Design includes massing, proportion, fenestration, and ornament. Ornamentation will be very important in determining Criterion C eligibility. It could include decorative ironwork (hinges especially); roof-ridge cupolas; gable-end “stars”; painted or trimmed louvers; datestones; painted decorations; cutout designs; cornice detailing; brick-end patterns; and bracketing.

Design could include examples of marked visual relationship of buildings to one another through such qualities as colors (historically), siting, proportions, and materials. Thus significant design can potentially apply to a farmstead or even a historic agricultural district.

Design also includes overall layout of the farmstead or farm, for instance if buildings are arranged in a recognized, regionally typical pattern in orientation and layout, such as linear organization of eastern and central Pennsylvania (as described by Henry Glassie, Joseph Glass, and others); or; farmsteads bisected by a road as is common in the Northern Tier (as described by Trewartha).

*What qualifies as significant workmanship?*

Workmanship is evidenced in quality of masonry, timber framing, durable construction, including evidence of skilled workmanship in details such as hardware or even nails. Masonry, for example, might exhibit carefully cut stone rather than fieldstone. Another facet of workmanship would be cases where there is a good quality example of particular construction method such as log, *blockstanderbau*, plank, timber frame, Shawver Truss, etc. Workmanship applies primarily to individual buildings.

*What qualifies as significant “artistic merit”?*

This is the most hard to define category of the three. It connotes skill in achieving desired aesthetic qualities. For example, careful proportions, sensitive siting, and originality of design are important components of aesthetic merit. Again, ornament is where aesthetic merit shows most clearly, for example in locally characteristic designs for hardware, weathervanes, bracketing, and the like.

### Examples

Example 1: Hodge Barn, Centre County, c. 1870.

This is a double-decker Pennsylvania barn with decorative ornament, double bankside bridges, and struts under the forebay, located in Centre County.

This barn would qualify under Architecture because of its design features (double decker with multiple mows and floors), its workmanship (technical mastery represented in bridges, struts, and interior framing), and its artistic merit (decorative ornament).



Ornament on Hodge Barn, Centre County

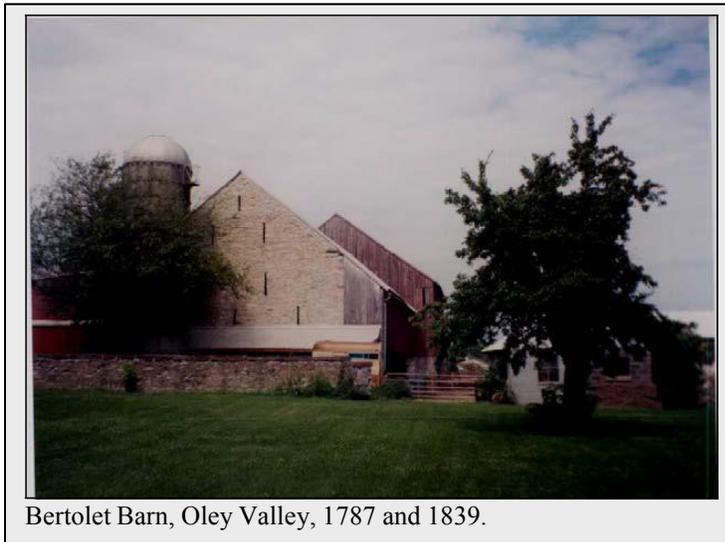


Hodge Barn, Centre County, struts under forebay

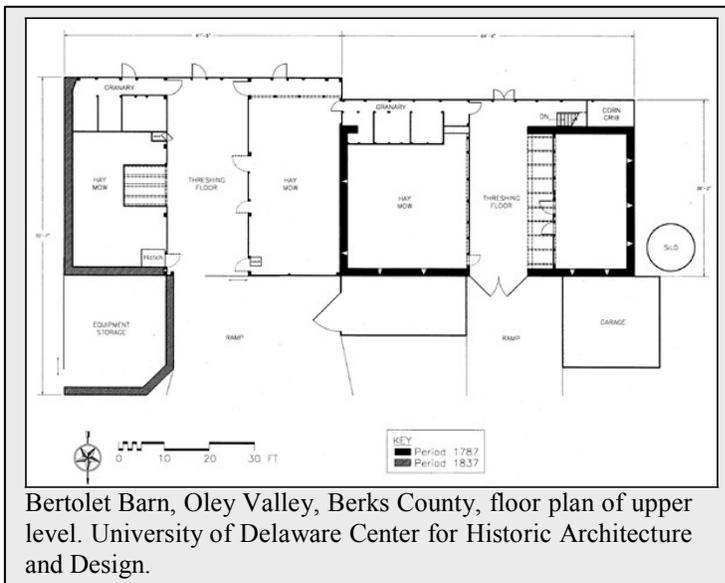


Hodge Barn, Centre County, struts under forebay

Example 2. The Bertolet Barn in the Oley Valley of Berks County, 1787 and 1839. This barn shows the evolution of the Pennsylvania Barn. The 1787, stone portion has a Germanic *liegender stuhl* framing system; forebay granary with bins; two mows flanking a threshing floor; and intact stable level. It is significant because of its design (the multi-level system was worked out to perfection), workmanship (the masonry and the timber framing) and artistic merit (in its proportions, materials, etc). The 1787 date is inscribed over the bankside door. The 1839 portion (also dated, thus affording a rare chronological benchmark) is significant for different reasons: it shows adaptations of framing systems, but still assembled with a high degree of skilled workmanship; it shows continuity of design and artistic merit from the earlier portion.



Bertolet Barn, Oley Valley, 1787 and 1839.



Bertolet Barn, Oley Valley, Berks County, floor plan of upper level. University of Delaware Center for Historic Architecture and Design.

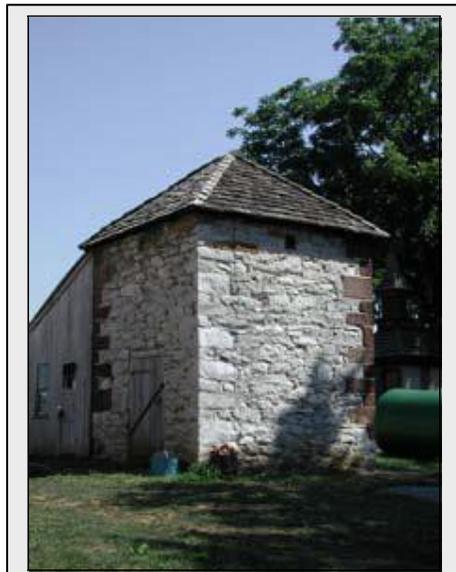
Example 3: the Plank Barn in Cumberland County. This brick-end barn was built in 1853. It is significant for its design, workmanship, and artistic merit. Its significant design features clearly include attention to simple proportions. Its workmanship is important in the significant masonry technique needed to create the openwork patterns in the gable ends. Its artistic merit is represented in the diamond



Plank Barn, Cumberland County, 1853

motifs. The datestone helps to establish chronological frameworks for these barns. The owner manufactured a local plow and the barn is evidence that he was consolidating his wealth.

Example 4. Smokehouse, Tulpehocken Manor, Lebanon County, late 18<sup>th</sup> century. Most examples of architectural significance will likely be larger buildings such as barns, but this smokehouse (in Lebanon County) is an example of a smaller building which might qualify because of its masonry (which qualifies both under workmanship and design, because its decorative corner quoins are clearly ornamental) and the hand-wrought ironwork, which includes a bar against thieves which is inscribed with the owner's name and date. The building clearly exhibits all the characteristics of its type.



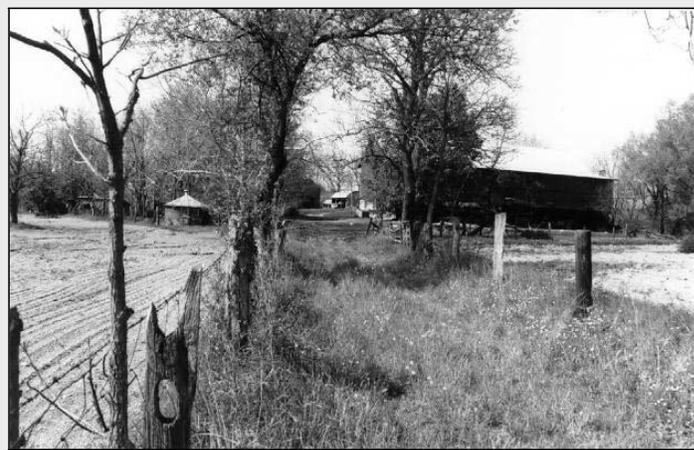
Smokehouse, Tulpehocken Manor, Lebanon County, late 18<sup>th</sup> century

Example 5: Chicken house at Landis Valley Museum, Lancaster County, early twentieth century. Although in poor condition, this chicken house, located in what is now the Landis Valley Farm Museum, embodies the character-defining features of “modern” housing recommended by the extension services and growers associations for optimum management of large flocks. The massing, proportion, and fenestration, as well as the interior arrangement maximize efficient work flow and healthy stock management.



Chicken house at Landis Valley Museum, Lancaster County, early 20<sup>th</sup> century.

Example 6: Joel Dreibelbis Farm in Berks County. Properties can be significant under Criterion C for reasons other than their architecture. The farm plan with the siting of the buildings in relation to each other and to the surrounding fields make up a carefully planned complex. The spatial organization of the buildings and the land use patterns, which include a wet meadow, reflect traditional German labor and conservation ethics.



Joel Dreibelbis Farm, Berks County, farm lane, fields, outbuildings. Pennsylvania Historic Preservation Bureau file photo.

## **Property Types and Registration Requirements – Criterion D, Archaeology**

These requirements apply to properties in all regions. The examples below are not meant to be an exhaustive list of ways in which a farm or farmstead site could be eligible under Criterion D in Agriculture; instead, they are meant to provide a limited overview of current research into the archaeology of farms or farmsteads and of data that these excavations have yielded. Other datasets could yield significant information about agriculture. In addition, many of these research topics pertain equally well to both demolished and extant farms or farmsteads. In addition, keep in mind that archaeology can be used to support evaluation under any Criterion or area of significance.

To be eligible under Criterion D, a property must “have yielded or...be likely to yield information important in prehistory or history.” For Agriculture, although farms and farmsteads may contribute other (or various types of) information to the study of Pennsylvania history important information on archaeological farm properties in Pennsylvania is information that contributes to the understanding of the major themes identified in this context either for the state or for the individual agricultural regions or for both. To recap, these themes include representation of agriculture of one time period or representation of agricultural change over time; representation of typical production, in terms of both production and use; and representation of labor patterns, land tenure, mechanization, and cultural traditions. These requirements should not be considered in a vacuum; they must be examined in the context of the cultural milieu of the historic agricultural regions developed elsewhere in this MPDF.

Based on current research in historical archaeology, the registration requirements for archaeological properties that are farmsteads in Pennsylvania are that the site provide important information on changes to landscape and the built environment over time; on the use of agricultural products; on labor and land tenure; and on cultural patterns. To be eligible under these registration requirements, a site must provide important information on the topics listed below and must also demonstrate integrity. For archaeology, integrity should be measured in light of the current state of archaeological knowledge for that region, the research questions being addressed, and the unit of analysis. For example, the standards of integrity for a region without a robust archaeological record would be less stringent than for an area that is well-documented archaeologically. In addition, a site where the significance lies in its ability to provide information about change over time

should have discrete deposits that can be directly associated with different time periods. The above are only two general examples to guide assessments of integrity.

### **Change Over Time**

Agricultural resources may yield important information about modifications to the landscape to accommodate both farming and changes in farming. The creation of a farm obviously involves alteration of the landscape; archaeology can document this alteration. For example, Mary Beaudry (2001-2002: 137-138), working at Milton Farm in Scotland, was able to document how the landscape was altered to accommodate the creation of a farm dedicated to raising sheep. Excavations revealed the massive drainage efforts that were undertaken to turn the land from marsh into productive pastureland. Therefore, important information would document how farmers modified the landscape to begin farming as well as to keep up with changing agricultural practices in their region.

Archaeology can also provide important information on the evolution of the built environment. “The rendering of a farmstead on an atlas dating to the middle of the 19th century does not mean the site sprang from the ground full blown... (Catts 2001-2002: 145).” Often, buildings were moved or reused over time (Beaudry 2001-2002: 130). In some cases, buildings were never even documented in the historical record or the documentation is contradictory (Garrison 1996: 24, 32). These data can provide important information on how farmers responded to the larger movements and innovations in agricultural practice for their regions, documenting both the degree to which farmers followed the latest prescriptions, and the amount of time it took for these ideas to diffuse from other areas (Beaudry 2001-2002: 130; Catts 2001-2002: 145). Archaeology can also provide important information on how changing patterns of refuse disposal illustrate larger changes in farming practice. For example, archaeologists were able to tie modernization theory into their study of South Carolina farmsteads by examining refuse disposal at these sites (Cabak, Groover, and Inkrot 1999: 35). Comparing the density of artifacts at both “modern” and “traditional” farmsteads, archaeologists were able to document the ways that disposal patterns reflected modernization. In addition, useful features may be filled with refuse later on. Mary Beaudry (1986: 39) documents the filling in of water-related features, pointing out that that process can be related to “...an ongoing series of changes made in response to technological innovations, economic and social pressures...” etc. Catts (2001-2002: 148) also documents a trend of refuse disposal in specific dumping areas away from the farmstead. The timing and reasons for this change could provide important information on the evolution of agricultural practice, as well as on the degree with which innovations diffused from other areas.

### **Agricultural Production**

In terms of production, archaeology can provide important information on agricultural production for a market economy. One of the most fruitful lines of evidence, faunal analysis, has the potential to reveal a great deal of important information regarding how market forces shaped production patterns on farms. By comparing faunal remains from both rural and urban sites in Massachusetts, archaeologists were able to document changes in rural production to meet urban demand (Bowen 1998). The percentage of calves in urban assemblages was much higher than in rural assemblages; therefore, it appears that increased production of milk for urban areas also led to increased production of veal for those same areas. Rather than spend precious resources on animals that were useless for dairying, farmers would sell male calves to urban consumers (Bowen 1998: 143).

Examination of faunal disposal patterns is most profitable when done in conjunction with oral historical or other information (Whittaker 1999: 53-54). In Iowa, for instance, archaeologists found that, in general animals that were slaughtered for farm consumption were generally either burned or discarded; rarely, they were buried. The existence of a large, rapidly filled pit, filled with more remains than would be necessary for a farm family, therefore, pointed out that slaughter for market was taking place at this site (Whittaker 1999: 53-54). These types of data could provide important information on the degree to which individual farms participated in the market system.

### **Labor and Land Tenure**

In terms of labor and land tenure, archaeology can produce important information on the interplay between land tenure and changes over time. For example, archaeologists in Massachusetts were able to correlate changes to the landscape with specific changes in ownership in Estabrook Woods (Garman et al. 1997: 65-66). One owner clearly modified the yard to create better drainage. In addition, as ownership changed, the field layout also changed: earlier field features (mounds for corn cultivation) were incorporated into later field patterns. This type of information could be especially useful if different owners represented different ethnic groups. For example, archaeology could provide important information on the changes wrought when a Welsh family purchased a farm from a Pennsylvania German family, and how those changes are manifested in the archaeological record.

Aside from providing important information on individual farms and individual ownership, archaeology can provide important information on the effects of larger events

on the farming culture. For example, during the Napoleonic Wars in Europe, European demand for American goods (including agricultural products) rose dramatically. With this in mind, archaeology can document the effects of this heightened demand on agricultural production and practice in each agricultural region in Pennsylvania (Garman et al. 1985: 73). In addition, the Civil War was another event that had a dramatic impact on agricultural society. Besides raids, forage, and simply the movement of large bodies of troops across the agricultural landscape, this event occasioned a tremendous loss of life and shortage of manpower after the war. In the southern United States, this loss of manpower hastened the mechanization of many farms. Archaeology could demonstrate how this loss of manpower was manifested in the landscape and material culture of Pennsylvania's agricultural regions (Catts 2001-2002: 149).

Labor and land tenure also ties into several major research themes within historical archaeology, including status (e.g. Miller 1980), class (e.g. McGuire and Walker 1999), and ethnicity (e.g. Stine 1990). In terms of status, the archaeology of Pennsylvania farms can provide important information about the ways in which farmers displayed their status. For instance, investigations in New Jersey suggest that farmers chose to display their status by improving their agricultural holdings, as opposed to participating in the consumer culture (Friedlander 1991: 27). Ceramic and glass artifacts indicated a status position that was not in keeping with the farmer's status as derived from the historic record. Tenant farmers, on the other hand, may have more fully embraced consumer culture since there was little use in improving structures and land that they did not own (Rotman and Nassaney 1997: 56). Archaeology within Pennsylvania's agricultural regions could provide important information on the general applicability of these findings.

Status, in combination with ethnicity and role (owner, tenant, etc.), has the potential to yield important information on the social hierarchy of agriculture. For example, statistical analyses in North Carolina found that the material remains of African American landowners were more similar to those of white tenants than to those of either African American tenants, or white owners (Stine 1990: 40). African American and white tenants, on the other hand, were nearly impossible to distinguish. Overall, ethnicity played a role in the ranking of landholding farmers; however, economics appears to have played a more important role than ethnicity in the rank of tenant farmers. Investigations in Pennsylvania could test this model across regional lines.

Closely related to the above themes of ethnicity, status, and role, is the concept of class. Class has variously been defined as "the relationship of a social group to the means of

production” (McGwire and Walker 1999: 160), as a description of a fixed position in society, and as a relative measure of the relationships between different social groups (Wurst and Fitts 1999: 1). According to some archaeologists, however, regardless of the definition of class, its role has not been sufficiently examined in the archaeological record; the historical archaeology of class has been “meager.” (Wurst and Fitts, 1999). Therefore, this concept may yield important information for the study of Pennsylvania agriculture. For example, in New York state, archaeologists examined the manifestations of class between servants and their employers in Binghamton and found that artifact types and locations can represent different classes within the same property and that mixed assemblages may be the result of different class structures on the same property (Wurst 1999: 17). In agricultural regions of Pennsylvania where migrant labor was important, this type of study could produce important information on the differences between the owners and the workers. In addition, Wurst (1999: 13) demonstrated how, at a rural tannery, the owners minimized the material cultural differences between themselves and the workers.

### **Cultural Patterns**

In terms of cultural patterns, archaeology can provide important information about the degree of cultural exchange that took place in agricultural communities (i.e. assimilation and acculturation). In some areas of New Jersey, for example, English and Scottish farmers borrowed certain architectural elements from their Dutch neighbors; archaeology may be able to document this exchange in other areas, such as land use and other material culture. In addition, the historical record indicates that the Dutch maintained many of their ethnic ties, including language; however, other aspects of material culture, such as ceramics, indicate that some cultural exchange was taking place (Scharfenberger and Veit 2001-2002: 68). For Pennsylvania, archaeology can provide important information on assimilation within the cultural milieu of the agricultural regions discussed within this MPDF.

Archaeology can also provide important information about cultural patterns, as manifested in religion and religious practice. For example, in Arkansas, archaeology, in conjunction with the documentary record, was able to document the degree to which one family maintained its Jewish heritage, despite being isolated from any large Jewish congregation. The faunal assemblage demonstrated that this family did not observe kosher law; however, the documentary record points out that the family was active in establishing a synagogue in New Orleans and was still a participant in the larger Jewish world. It appears, therefore, that the family’s location in an isolated, non-Jewish area led to certain changes (e.g. not keeping Kosher law), but did not break all of their ties to the

Jewish community (Stewart-Abernathy and Ruff 1989: 97 and 105). In Pennsylvania, archaeological investigations at a Quaker-owned farmstead in Chester County were able to provide important information on the interplay (and contradictions) between Quaker belief and Quaker participation in the larger market system (Bailey et al. 2004:131).

### **Faunal Studies**

Although not one of the overarching themes in Pennsylvania agriculture, faunal analyses have the potential to provide a great deal of important information about the above themes. For example, past archaeological studies have used faunal analyses to examine the use of the landscape and change over time, as well as status. By combining oral history with faunal analysis, archaeologists in Missouri were able to provide information on different processing methods and disposal of fauna (Price 1985: 46-47). For example, smaller animals, such as squirrels, would have been processed in the yard, leaving some bones there. Other bones, however, would have been discarded at the margins of the yard after the meal. Larger animals, such as pigs, would have been slaughtered near the smokehouse (Price 1985: 48). In areas without standing remains, or where spatial relationships are not clear, this data could provide important information on the layout of agricultural properties through time. Also, the use of wild animals in the diet can point out the status of the site's inhabitants. Both higher status and lower status farmers would likely have a larger percentage of wild animals in their diet, either through conscious choice, or due to economics (Scharfenberger and Veit 2001-2002: 64).

### **Conclusion**

The registration requirements for archaeological properties that are farmsteads in Pennsylvania are that they must provide important information on the themes developed in this MPDF. It is important that the important information relate not only to the themes, but also to the themes as they are manifested in each agricultural region. Broadly, these themes are change over time, agricultural production, labor and land tenure, and cultural patterns. In addition, a separate category, faunal analysis, has the potential to yield important information on several of the themes identified in the MPDF. Aside from significance, as represented by the potential to yield important information, farmsteads must also display integrity. The assessment of integrity should be based on the archaeological record of a particular region, as well as the research questions and the unit of analysis.

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## Statement of Integrity

This Statement of Integrity discusses the seven categories of integrity as defined by the National Register, for each of the three Property Types (farmstead, farm, historic agricultural district) defined in this context. This statement applies to properties in all regions.

### **Location:**

Integrity of Location refers to the requirement that buildings and landscape elements remain in their original location. Normally, a building loses eligibility if it has been moved. However, where a farmstead is concerned, farm buildings present a challenge to the normally straightforward rule. Historically it has been very common to move and reuse farm buildings. Some, like poultry houses, were actually designed to be easily moved. Other types of smaller farm buildings were frequently rearranged. The New England Connected Farm complex, for example, resulted from moving buildings.

Therefore, if an agricultural building has been moved, and the change in location can be interpreted as a reflection of changing agricultural patterns, integrity of location has not been compromised. If a farm building has been moved or reused after the period it is supposed to represent, integrity of location is not present.

Integrity of Location for a farm is well defined by the SR 30 context, which says “an agricultural property must be located either where it was constructed or where important trends or patterns in agriculture occurred.... Siting with respect to natural features and topography, use of local and indigenous materials, relationship to roadways, the presence of native species... and other responses to the natural environment all add to integrity of location.”<sup>30</sup>

Integrity of Location by definition is present in a historic agricultural district, as it is unlikely that an entire area would be relocated.

**Design:**

To quote the Georgia agricultural context, design is the “combination of natural and cultural elements that create the form, plan, style, and spatial organization of a property.”<sup>31</sup>

For individual farmstead buildings, design includes such elements as siting, orientation, form, massing, proportion, fenestration, location of doors, roof types, and ornament. Integrity of Design applies to both exterior and interior elements. For houses, interior integrity is well established elsewhere; for barns and outbuildings, interior integrity of design refers to the presence of significant plan elements characteristic of a given barn type. So, for example, an English Barn should retain the characteristic one-level, three-bay layout with mow, threshing floor, and stables arranged crosswise to the roof ridge. A Pennsylvania Barn should exhibit the characteristic multi-level work-flow arrangement, and the diagnostic features of the type (forebay, banked construction, and so forth.) Another aspect of interior design would be framing systems; while these are covered under Workmanship, they also fall under Design because often they were assembled to permit hay tracks, expand storage space, and delineate spatial divisions both vertically and horizontally. Barn and outbuilding interior alterations that show significant agricultural changes in a region do not compromise integrity, because they can contribute to significance based on change over time. However, if they postdate the period of significance and/or obliterate historical fabric, then integrity is not present. For example, a Pennsylvania Barn whose lower level was cemented and fitted with stanchions for dairy cows in the 1930s could retain integrity because it illustrates changes within a period of significance, but if its entire lower level was gutted, expanded, cemented, with new partitions in the 1980s, it would likely not retain integrity.

Farmstead layout and the relationship of buildings to topography are important elements in Integrity of Design. Farm layout should retain integrity with respect to farm labor patterns for the period of significance in the region where the farmstead is located. In most cases, this means spatial organization to facilitate family and neighborhood labor. So, for most pre-1930 farms, a poultry house, detached dairy house, or hog facility should show a siting relationship to both house and barn, usually being situated between house and barn, or in a clear relationship to the house's dooryard (as in the Yankee Northern Tier) or *vorhof* (more common in German Pennsylvania), or in an arrangement where all buildings are closely clustered. Integrity of farmstead design also can apply to characteristic cultural or regional patterns. In the Northern Tier, for example, it was common for a road to bisect the farmstead, whereas in German Pennsylvania, a linear or court-yard organization was more prevalent.

For farmstead landscape elements, Integrity of Design applies to whether the farmstead retains traces of the fabric and location of boundaries, lawns, fences, ponds, circulation elements (paths, drives), gardens, farm lanes, orchards, and ornamental plantings. It would be rare for these to survive in their entirety, but some vestiges should be present.

Integrity of Design also applies to the collection of buildings on a farmstead. Most farmsteads will contain a mix of contributing and noncontributing buildings and structures. A determination must be made as to whether there is too high a presence of noncontributing elements. In such cases, it is important that the farmstead adequately reflect the composite patterns of the relevant agricultural region and period. For example, a farmstead might have an early wood-stave silo, a c. 1940 concrete stave silo, and a c. 1975 Harvestore silo all clustered together, next to a barn complex that includes a c. 1900 Northern Basement barn, a milk house, and a c. 1950 cow shed. In this context, the noncontributing Harvestore silo does not detract from Integrity of Design, because its scale and siting relate to the historical fabric. On the other hand, a farmstead may have a Pennsylvania Barn surrounded by a 1990s livestock loafing shed twice its size, and a 1980s manure lagoon. If modern livestock-handling facilities dwarf the historic building in scale, or if they are sited so close as to overshadow the historic fabric, then Integrity of Design is doubtful. However, it should be noted that in many cases, modern livestock handling facilities are sited away from older buildings, and in these cases (especially if the modern facilities are all concentrated in one place), Integrity of Design may still be present. Scale and location should be considered in determining Integrity of Design in cases like these.

At the farm scale, Integrity of Design is present only when a significant proportion of acreage remains. It is desirable, though not an absolute requirement, if continuity of use is present – ie crop production, pasture, livestock raising, and so on. In addition, a farm's Integrity of Design depends on the extent to which it retains traces of field divisions, fields (such as small fields or historic strip cropping) property boundaries, treelines, hedgerows, fencing, woodlots, circulation paths, and the like. If continuity of use is present, it is unlikely that all historic landscape features will have survived intact, because of the needs of modern farming; but at least some traces should be evident. If large-scale monocropping resulted in the removal of field boundaries, woodlots, treelines, fencing, and circulation paths in the 1990s, Integrity of Design may have been lost.

A historic agricultural district retains Integrity of Design when its constituent farms have an acceptable level of integrity collectively. Since contributing resources are counted

individually (so, each resource, even within a farmstead, would be counted), this must be determined with respect to whether and how the sum total of contributing resources creates a coherent whole. For example, there may be cases in which one or two farms are included because they have one outstanding building, even though its other resources are not exceptional. But overall, there should be a consistent presence of contributing resources on farms that make up the district. Also, elements of the historic transportation routes, waterways, etc. that connected the farms in the district should remain.

A historic agricultural district's integrity of design depends very much upon landscape features. Intact historic field patterns, treelines, ponds, disposition of pasture and woodlot, etc. should count heavily in an assessment of integrity in a district. Consider also that since farm fields, waterways, and woodlots are such crucial components of an agricultural district, their integrity should weigh equally with architectural integrity of buildings. So for example, a district might contain buildings where there has been some impairment to integrity, but if many landscape features are clearly intact, the overall district's integrity would still meet National Register standards. Another example would be a situation where small patches of modern development are interspersed within the boundaries of a historic agricultural district. In a case like this, the total number of noncontributing resources might be relatively high, but overall integrity would still meet National Register standards because the land area occupied by the intrusions would be minimal compared with the total area taken up by the district.

**Setting:**

Integrity of Setting with respect to a farmstead has two dimensions. Integrity of Setting can be present with respect to the farmstead's interior organization, for example if it retains its original relationships among buildings, natural features, and landscape elements that make up the farmstead. Integrity of Setting also applies to the farmstead's surroundings, so at least part of a farmstead (one or two sides at least) should border on open space, woodland, or agricultural land. If a literal spatial buffer is not present, Integrity of Setting may still be present if the farmstead retains visual buffers. For example, what if a farmstead lacks much original acreage, and abuts on a modern subdivision? It may retain Integrity of Setting if it is visually set off from the subdivision through such means as topographical features. However, if not, the farmstead probably does not retain Integrity of Setting.

Integrity of Setting with respect to a farm normally involves continuity of use. There may, however, be cases where continued farming with modern methods has all but wiped out historic farm landscape elements such as patterns of crop rotation and field

organization, hedgerows, treelines, shade trees, rock piles, fencelines, fences, and the like. In extreme instances, Integrity of Setting may be compromised by continuous farming. An example would be if 1930s aerial photographs showed all of these features, and a present-day site visit showed that a large monocropped field had supplanted these earlier farm landscape features. Integrity of Setting for a farm is also present if a farm abuts open land, woodland, and/or historic transportation corridors.

Integrity of Setting with respect to a historic agricultural district can be reckoned with respect to internal relationships among buildings, landscapes, natural features, and transportation corridors. So for example a district along a historic canal corridor should include canal features like locks, masonry lining, and the like; a district in a sharecropping region should include a number of farms that were historically and thus architecturally interrelated. A historic agricultural district possesses Integrity of Setting if its external surroundings continue to reflect general historic patterns and use.

**Materials:**

Integrity of Materials refers to the presence of “key exterior materials from the period of significance”<sup>32</sup> Integrity of Materials is well covered for houses elsewhere. For the other buildings of the farmstead, barns and outbuildings often are constructed, or reconstructed, of recycled materials, and integrity of materials is present as long as the recycling can be interpreted as contributing to significance for agriculture. On a farm property, some materials may be organic – such as a fenceline made of rubble, trees, and spontaneous growth. (However, the original vegetative material of crops, or the original fence, does not need to be present.). A historic agricultural district retains Integrity of Materials if its constituent properties possess Integrity of Materials collectively. As well, in districts Integrity of Materials can refer to the presence of key materials across property boundaries, or along shared property boundaries. Remnants of irrigation systems would be an example.

**Workmanship:**

Integrity of Workmanship refers to the retention of traditional or historic craftsmanship. These include such familiar skills as wood joinery (log, plank, post and beam framing), masonry (stone and brick), but also skills more closely related to agriculture such as fence building, contour plowing, windbreak planting, crop rotation, garden construction, farm pond construction, or farm planning. Workmanship can also refer to the skilled use of technologies that are not necessarily hand-tool derived. For example, the Shawver Truss, a barn framing system popular c. 1900, combined artisan skill with industrial technologies. Evidence of recycling or reuse may contribute, as long as it is part of a pattern or historic trend. Integrity of Workmanship applies mainly to the farmstead

buildings and landscape features. However, collectively Workmanship could conceivably have an impact on the overall appearance of a historic agricultural district in some instances, for example, if in a district a group of farms collectively exhibits particularly adroit arrangement of contour strips.

**Feeling:**

Integrity of Feeling refers to the “Ability to evoke the aesthetic sense of a particular time and place.”<sup>33</sup> This is an intangible quality, which depends to some extent on integrity of design, setting, materials, and workmanship. If the farmstead, farm, historic agricultural district, or the general area continues under agricultural use, integrity of feeling is enhanced. Integrity of Feeling also is present if a property retains a sense of scale characteristic for its period; the interrelationship of the human and natural that is so important in agriculture; if there are many vantage points from which agricultural activity or evidence of agricultural activity are vividly apparent.

**Association:**

Integrity of Association refers to the “direct link between the property and the... events and persons that shaped it.”<sup>34</sup> For significance with respect to agriculture, a farmstead or farm must have contributed to a working farm for its period of significance. The presence of historic landscape features related to agriculture is a key aspect of Integrity of Association. Close attention should be paid to identifying intact or remnant features. For example, are crop field size, scale, shape, and patterns are retained from the pre-contour stripping era? Are there remnants of early woodlots or sugar bushes? Is there evidence of land use such as pasturing? A majority of farms in a historic agricultural district should have a continued association with agriculture for the period of significance. To ensure Integrity of Association, the inevitable “intrusions” should be kept to a minimum. However, a historic agricultural district could conceivably have a high percentage of noncontributing properties relative to an urban district. For example, a concentrated 25-acre subdivision with 50 noncontributing houses might be contained within a 1,000-acre historic agricultural district with fifty contributing farms. Even though technically, the subdivision elevates the percentage of noncontributing properties, it does not reduce Integrity of Association, because it is such a small percentage relative to the continuously farmed (and contributing) acreage in the remainder of the district land area.

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- <sup>25</sup> Note that while the *buildings* represent an identifiable cultural tradition, the *owners or occupants* may not have necessarily share the same cultural heritage over the entire history of the property. People borrowed, reused, and adapted. For example, an "English" farmer in southeastern Pennsylvania may have built a Sweitzer barn because it best suited the diversified farming of the region.
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