
Agricultural Resources of Pennsylvania, c 1700-1960

**Pocono Resort and Anthracite Coal Region
Local Market-Oriented Agriculture, 1860-1960**

Table of Contents

Introduction	3
Location.....	8
Climate, Soils, and Topography	9
Historical Farming Systems.....	10
1860-1915: Diversified Vegetable, Fruit, Poultry, Dairy, and Hay Production for Local Markets	12
1915-1940: Diversified Vegetable, Fruit, Poultry, Dairy, and Hay Production for Local Markets	32
1940-1960: Specialization, Industrialization, and Decline.....	44
Property Types and Registration Requirements – Criterion A, Pennsylvania	50
Property Types and Registration Requirements – Criterion A, Pocono Resort and Anthracite Coal Region Local Market-Oriented Agriculture, 1850-1960	55
Property Types and Registration Requirements – Criterion B, C, and D.....	58
Integrity	74
Notes.....	80
Bibliography.....	83

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."¹ 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.²

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.

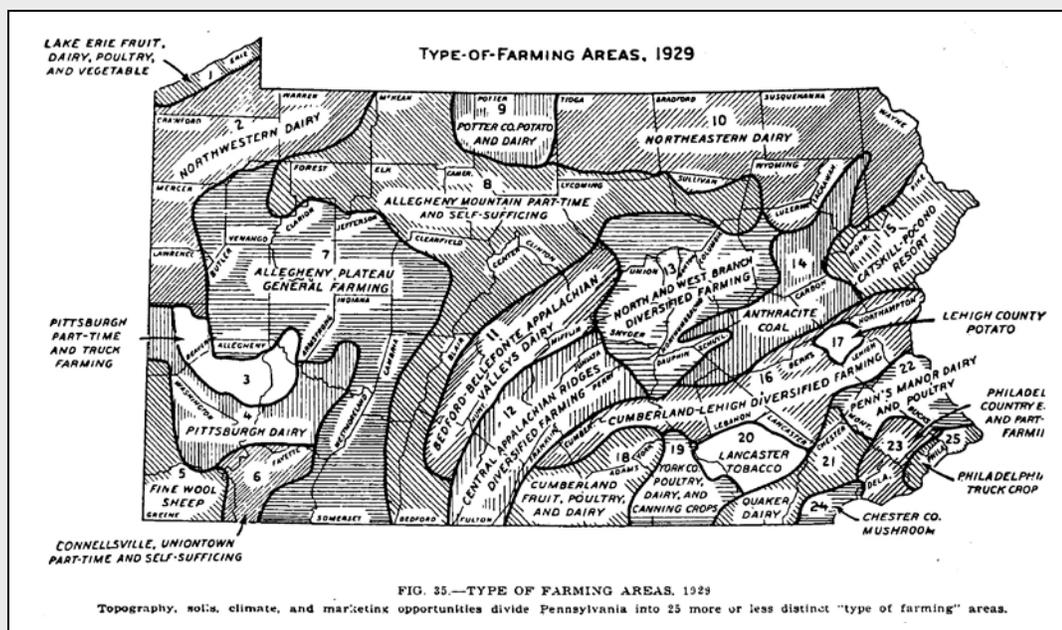
Acknowledging the historic diversity of Pennsylvania farm productions helps to clarify much, but it also raises a fundamental challenge for conceptualizing an approach that will faithfully convey Pennsylvania’s agricultural history, and make

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.

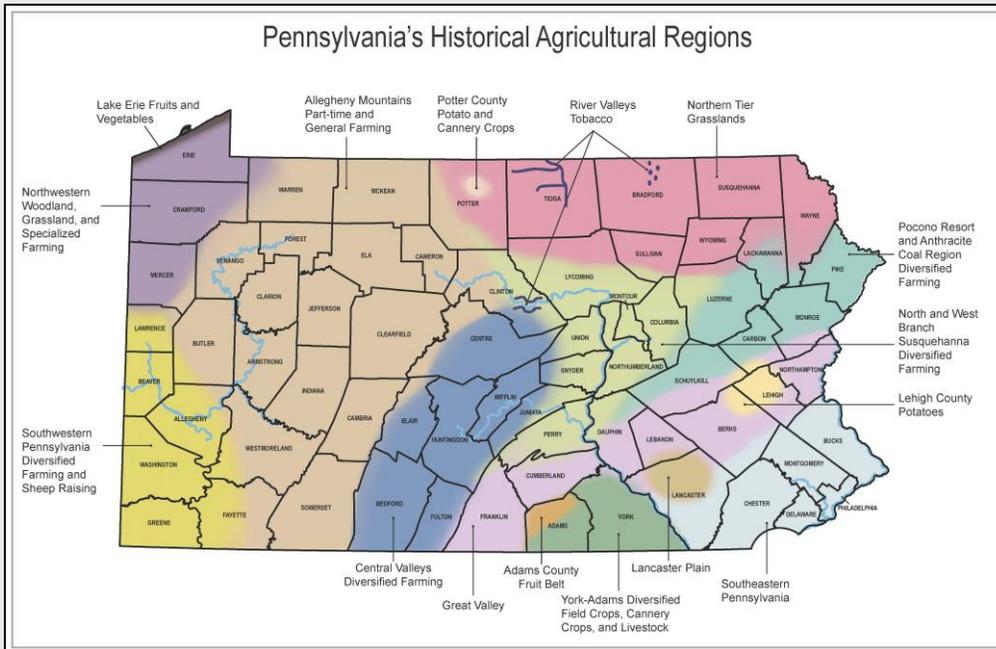
The idea of a “farming system” opens the way to a more comprehensive and accurate interpretation of the historic rural Pennsylvania landscape. For example, because the notion of a “farming system” includes land tenure and mechanization levels, we can identify a distinctive region in the heart of the 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

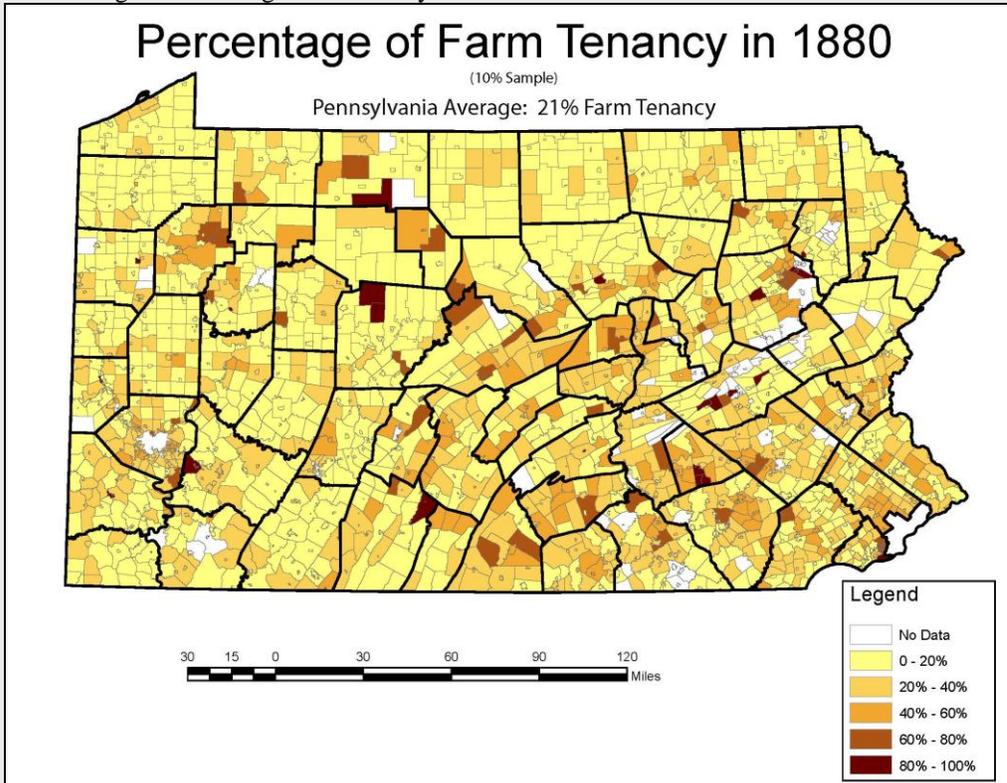
Mapping done by agricultural economists in the early 20th century identified “Types of Farming” areas based on soil types, topography, markets, climate, and production. These helped to establish clear regional boundaries to the extent that topography, climate, and soil types set basic conditions for agriculture, and they also aided in identifying 20th 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



Historic Agricultural Regions of Pennsylvania.



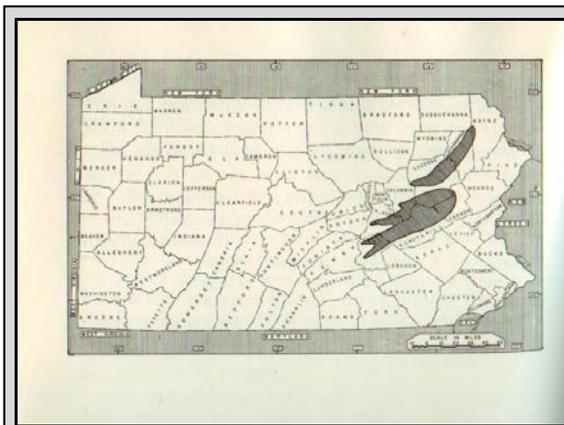
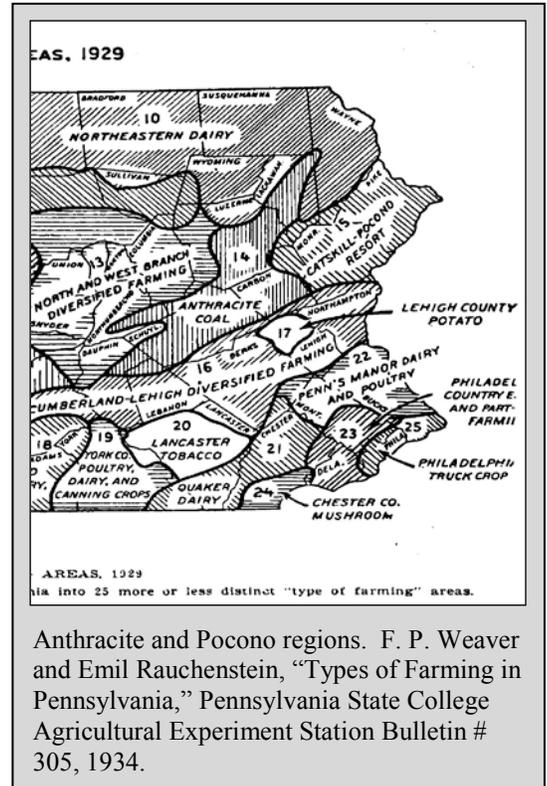
Share Tenants as a percentage of all farmers, 1880.

1 Emil Rauchenstein and F. P. Weaver, "Types of Farming in Pennsylvania." Pennsylvania Agricultural Experiment Station Bulletin # 305, April 1934, 39.

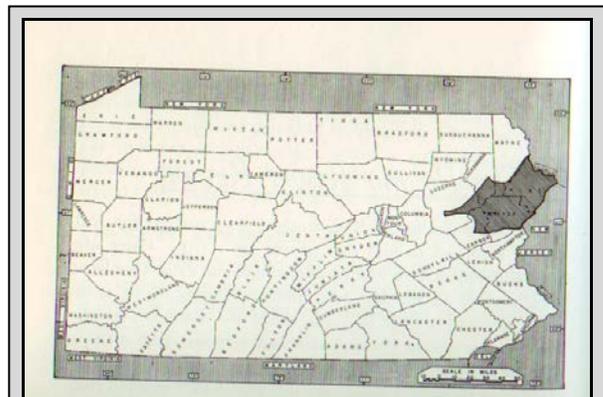
2 Paul I. Wrigley, "Types of Farming in Pennsylvania." Pennsylvania Agricultural Experiment Station Bulletin # 479, May 1946.

Location

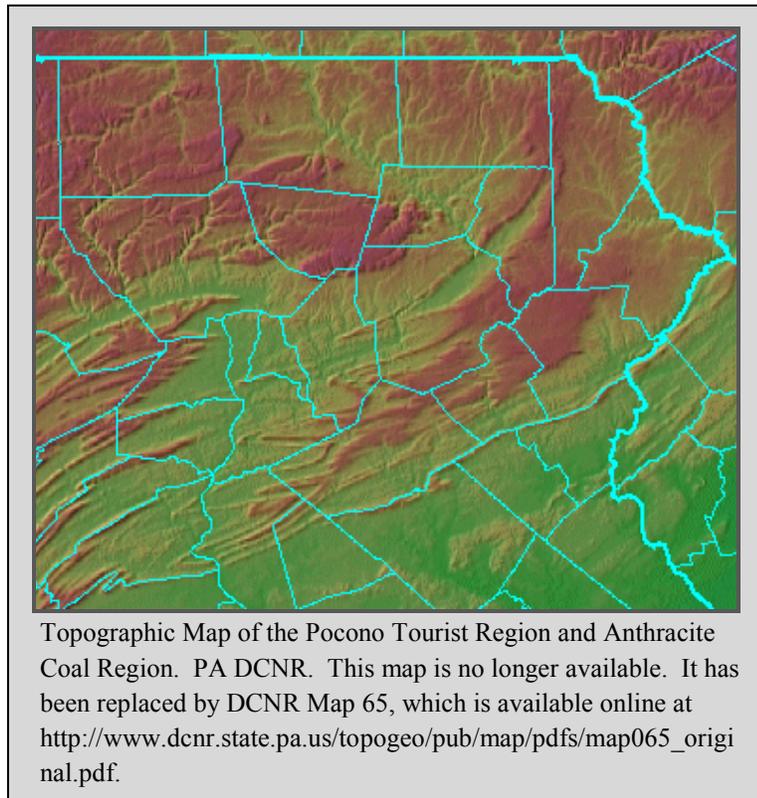
The Pocono Tourist Region and Anthracite Coal Region are geographically contiguous. They occupy an area running southwest to northeast and include nearly all of Pike, Monroe, Carbon, Schuylkill, Luzerne, and Lackawanna Counties; the southern portions of Wayne, Columbia and Northumberland Counties; and the extreme northern portion of Dauphin County. Definitions have changed over time, but for our purposes the general boundaries proposed here, as outlined in Murphy's *Pennsylvania Landscapes* (1952), are historically valid. Though they are very different in their social and cultural character, they are being treated under the rubric of a single historic agricultural region because they share similar agricultural patterns.



Anthracite region. Raymond Murphy and Marion Murphy, *Pennsylvania Landscapes, A Geography of the Commonwealth*. Second edition. State College, PA 1952, p. 154.



Pocono Region. Raymond Murphy and Marion Murphy, *Pennsylvania Landscapes, A Geography of the Commonwealth*. Second edition. State College, PA 1952, p. 173.



Climate, Soils, and Topography

The two regions mostly fall into the “Northeast” climate region of Pennsylvania, which is characterized by “both the greatest annual temperature range and the largest annual precipitation range in the state.”¹ The July mean temperature is 72° Fahrenheit and the January mean is 26°. Overall precipitation is less than 35 inches – the lowest in the state.

The Pocono region soils are mainly inceptisols with glacial till as their parent rock. In the Anthracite Region, the soils are mainly ultisols with sandstone or shale as their parent material. In neither case are occurrences of prime agricultural soils common. Forest and mineral resources have been far more important land uses than agriculture. However, small patches of good-quality farmland do occur throughout the region.

Topographically the two regions are highly varied. The Wyoming Valley is a distinct crescent-shaped gouge in the earth; it historically was a highly urbanized hub for the

Anthracite Coal region. Tongues of the ridge-and-valley region protrude into the area's southwestern tip. The Glaciated Pocono Plateau, Anthracite Upland Section, and Glaciated Low Plateau Sections account for the remainder of the region.² The Pocono Region is 1,500 to 2,000 feet above sea level.

Historical Farming Systems in the Pocono and Anthracite Region

What might be characterized as a “settlement” period extended further into the 19th century than was typical for the state. Documentation from archival sources and extant landscapes suggests that the agricultural history of the post-settlement era falls into three periods. Between 1860 and 1915, there developed a diversified farm economy mixing vegetable, fruit, poultry, dairy, and hay production, all for local markets in either the tourist region or the mining cities. This system reached its zenith sometime between 1910 and the end of World War I, the result of population booms in the coal region, an influx of money and people into the Poconos, and the fact that transport infrastructure still was dominated by railroads and horse transport. Ready markets close by gave even the farms on these poor soils an advantage. They still couldn't begin to supply all the local demand, but there was a place for nearby farms. Local farm families, mainly people of Western European descent, developed a relatively small-scale, highly diversified system in which they collectively raised a great variety of vegetables, fruits, crops, and animal products for local sale. To some extent the Pocono and Anthracite areas may have had different production patterns depending on the class status of their clientele. Summer boarders in the Poconos could afford niceties like strawberries or ice cream, for example, while working-class people in the anthracite regions demanded cabbage.

But there is still a common thread here in that farm production worked at a relatively small scale and produced perishable market-garden truck, dairy products, and the like. Horse and human power were the norm. Farming was often a part-time occupation. The distinctiveness of agriculture here, compared with other areas of the state, was in the degree to which very local markets dominated production strategies; the variety of

relatively small-scale enterprises; the significantly smaller role for cash grain and intensive livestock operations than in other parts of the state; a higher than average rate of landownership and also of part-time farming; and a larger proportion of farm labor contributed by women.

Between 1915 and 1940, agriculture in the region changed. Hay became less important, but diversified vegetable, fruit, poultry, and dairy production continued, with greater emphasis on the latter two. Between the World Wars, improved roads allowed cars and trucks to bring in a flood of competing produce from other places. At the same time, an agricultural depression followed by general depression and widespread unemployment reduced demand from the coal and tourist areas. Farm numbers in the region went into a sustained decline. For those that remained, the previous patterns of mixed farming continued, but within the context of agricultural changes that included a slow shift to fossil fuel power; a greater role for dairying and poultry raising and correspondingly lesser degree of diversification; and (in a few cases) some attention to new enterprises such as Christmas tree production or, some sources even allege, bootlegging. Farm owners of Eastern and Southern European origin increased their representation in the local farming population. "Part-time" farming continued to be very important as did the labor of women and children.

After the Second World War, agriculture in the region faced further challenges. Agricultural decline accelerated. Again, the farms that remained adjusted. Poultry and dairy production on a larger scale became even more prominent, and a few potato farms were able to stay in business. For a brief time concentrated cannery crop production was pursued, using migrant labor. This latter use of migrant wage labor was an exceptional anomaly in a labor picture that largely consisted of local and family workers. Overall, what remained of agriculture in the region tended to resemble farming in the state as a whole – increasingly specialized, more highly capitalized, and more fossil fuel-intensive. The little available evidence also suggests that agricultural labor was "masculinizing" to some extent during this period. Yet despite this homogenizing trend, patterns established in previous decades did not disappear altogether; they could be found in vestiges of former market-gardening and fruit-farming operations, as well as in related enterprises

such as nurseries. The farming landscape has disappeared to a greater extent here than elsewhere in the state. Reforestation and development have effaced much of the historic agricultural landscape. Yet fragments do remain.

1860-1915: Diversified Vegetable, Fruit, Poultry, Dairy, and Hay Production for Local Markets

The economic character of the region began to take shape before 1860, but was accelerated and more sharply defined on a regional basis during the Civil War Era. By 1860 Pennsylvania Germans, New Yorkers, New England Yankees, and a few immigrants from Western Europe, especially Wales, had mixed together in the region. The anthracite coal industry expanded rapidly during and after the Civil War, and immigrants from Southern and Eastern Europe flocked to the area to work in the mines. By 1925, the Scranton and Wilkes-Barre area was a major conurbation; Scranton alone had more than 100,000 people, and coal patch towns soon filled the Wyoming Valley and the surrounding region.

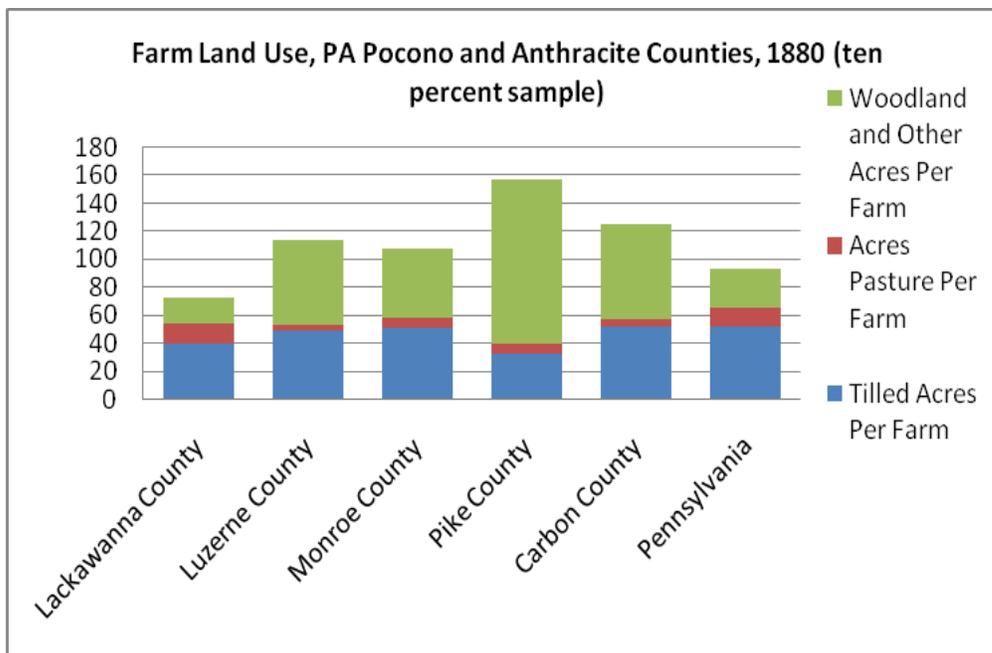
At the same time, the Pocono region became a popular resort for middle class people, mainly coming from Philadelphia and New York City. Each summer, vacationers took up residence to enjoy the lakes and the cool highlands. Pocono tourism was boosted by rail access, and also by the increasing cultural value attached to leisure time and associated activities. One class of Pocono visitor was the hunters and anglers, individual men or groups who came for the game and fishing. Another was families who would come for extended periods. Private organizations also formed to buy land, sell lots, and build hotels, cottages, and other amenities. The Society of Friends, for example, established a settlement near Cresco, in Monroe County. Other religious organizations held retreats in the Poconos as well.³

Though there was a definite class difference in clientele, both regions presented market opportunities for local farmers. Pocono visitors wanted fresh country milk, meat, eggs, fruits, and vegetables. Farm families marketed to individuals and also to the resort institutions that sprang up in the area. In some cases, there was an even more direct connection as farming families hosted summer boarders. Mining families, too, created

demand for fresh produce. Local farmers marketed to them both directly (for example, in plying “huckster” routes in the coal patch towns) and through local retail outlets.

Products, 1860-1915

In 1880 the average Pocono and Anthracite farm had proportionally far more woodland, less pasture land, and less cropland than the average Pennsylvania farm.

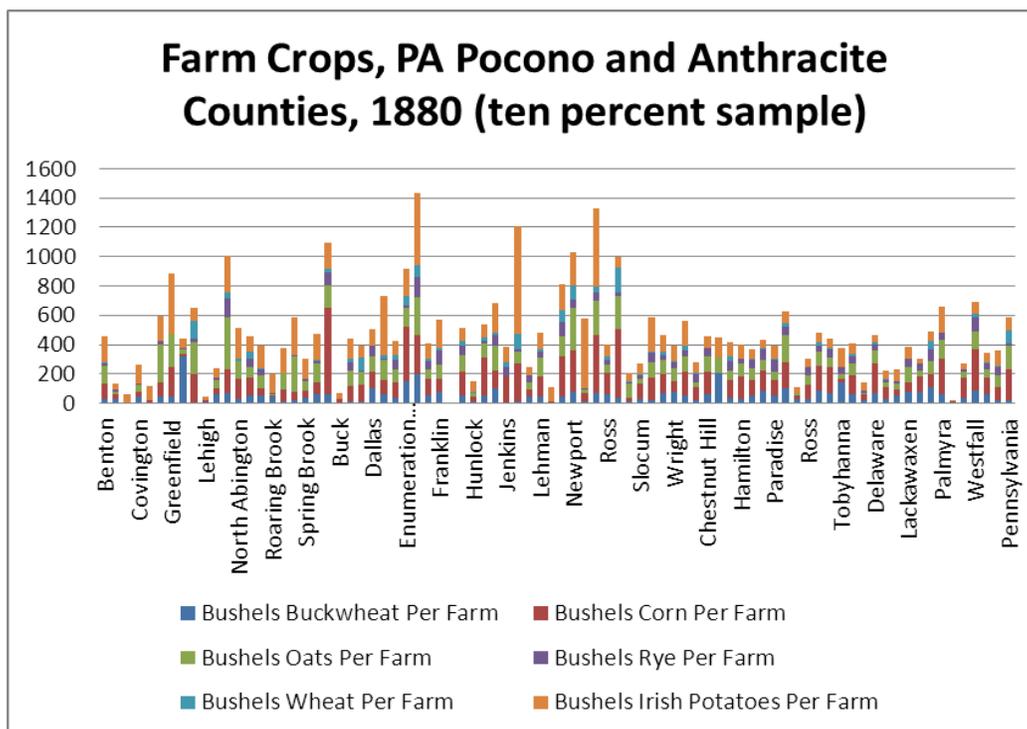


Even though total farm acreage was well above the average, the amount of improved land was actually slightly less. Productivity per acre was lower, because of poor soil and cool climate, so overall production was lower, too.

Already in the 1870s, the direction of crop farming in the region was becoming apparent. In the Luzerne County atlas of 1873, for example, an S. Stevenson advertised a “Fruit Farm” in Abington Township, and P. Sutton of Newton Township proclaimed his stature as “Farmer and Grower of all kinds of Small Fruit, and Dealer in All Kinds of Vegetables.”⁴ The 1880 census only recorded the value of market garden produce, rather than any specific statistics on what was produced. However, in the aggregate, Luzerne and Schuylkill Counties were among state leaders in this sector, and Carbon also stood well above the state average. This is noteworthy considering the generally low level of agricultural development in these counties. Biographical sketches from local histories

offer insights into how individuals shaped this version of local agriculture. In Carbon County, a Henry Schweibinz, a blacksmith who worked in Packerton, also owned a 30-acre farm and sold market garden produce to his fellow workers. Another Carbon County resident, Oscar Saeger, sold fruit and potatoes in the 1880s and 1890s and also had a cannery.⁵

Other contemporary observers gave specifics about crops and marketing. In 1896 a correspondent reported to the *National Stockman and Farmer* that Scranton retailers were selling potatoes for 25 cents a bushel, a high price at the time. He mentioned silage corn and cabbage as well, and described a system of direct marketing: “Farmers here sell everything direct to the consumer or to the retail grocer, except milk. I don’t think that any farmer in this section ever sold a dollar’s worth of produce through a commission man.”⁶ Another article in the same journal in 1900 described a trip to the Pennsylvania anthracite coal country. Between Wilkes-Barre and Tunkhannock, it noted, the river bottoms “afford good soil, which is largely devoted to gardening and truck farming, finding convenient markets close at hand in the upper mining district.” This observer noted that towards Montrose, bog lands yielded celery, cabbage and onions.⁷



An analysis of the 1880 agricultural census shows that where crops were concerned, the Pocono and Anthracite counties showed a distinctive profile. As elsewhere, diversified

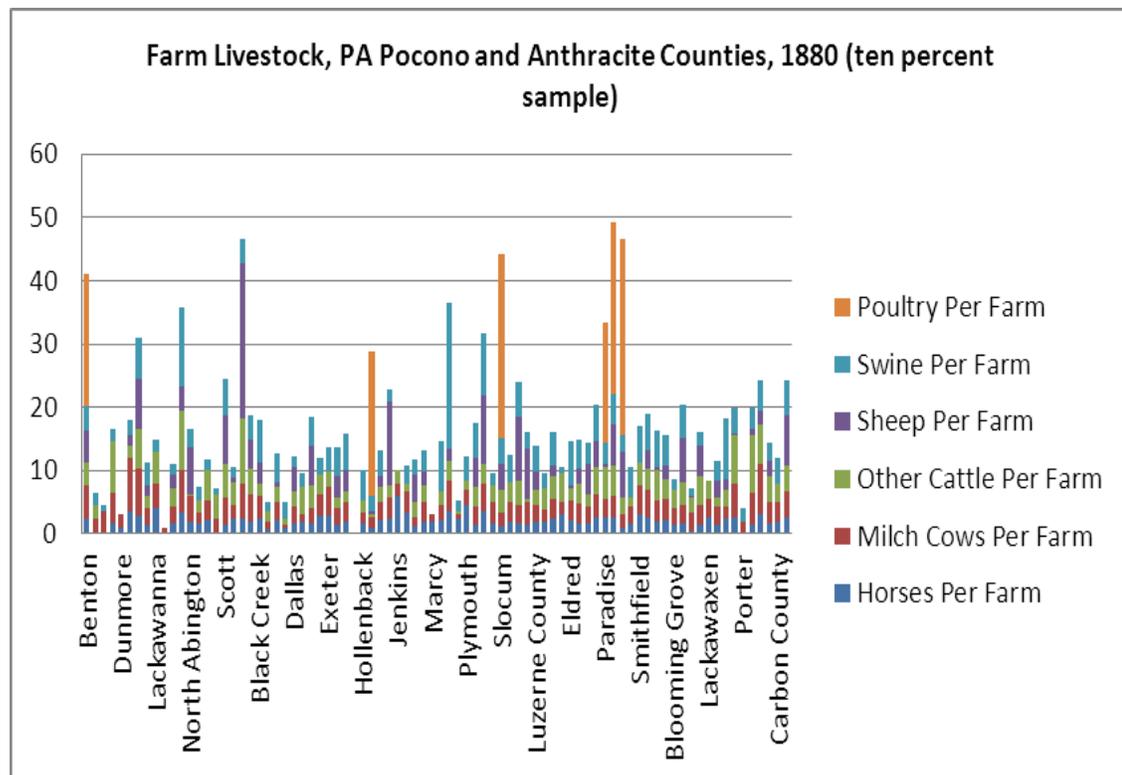
crop production was a given; all the common grains, even wheat, were raised. But the Pocono and Anthracite counties show proportionally a greater emphasis upon potatoes, buckwheat, and rye; and less emphasis upon corn, oats, and especially wheat than in the state as a whole. This pattern can be explained with reference to markets, soils, and climate. Potatoes were an inexpensive staple and key to the diet in mining communities, and in great demand there. In Carbon and Monroe Counties particularly, there were areas with soils well adapted to potato culture. The specific attention to buckwheat and rye in the Pocono and Anthracite regions derived from the local conditions. Both these crops can be fed to livestock and can withstand cold weather and thin soils much better than wheat, corn, or oats. Rye often served as a cover crop to prevent erosion, an important benefit in this hilly country.⁸ The author of a 1916 manual on *Productive Farm Crops* explained further why farmers would raise rye: He noted that it was “grown quite as much for the straw as for the grain” because the straw was very tough and worked well for animal bedding, “padding of horse collars or for the manufacture of matting.” “In the cities,” he continued, “there is a large demand for straight rye straw...the price of rye straw is one reason why a large acreage of rye is raised in New York State and Pennsylvania, as the straw is worth about as much as the grain.”⁹ Rye straw would also find a market with mining communities, because much power was furnished by draft animals which would need bedding. In the anthracite region cities, too, horse-drawn transport persisted until the early 20th century.

The Pocono and Anthracite region generally produced slightly less hay than the state average; most counties produced about 10 tons per farm in 1880, while statewide the average was about 13. This reflects less productive land and fewer animals on the farm. However, in Lackawanna County the average was 20, reflecting proximity to mines and to urban customers.

Statistical information on fruit culture is limited for this period. It appears that most counties in the region were just below state levels where the number of apple trees (by far the major orchard tree) was concerned. But Lackawanna and Luzerne Counties had orchards of well above average size (Luzerne County farms averaged nearly 100 trees),

and Carbon was right at the state average (43 trees). So, commercial activity was taking place. Small-scale orcharding fit in with the overall diversified market strategy.

A 1912 history of Newton and Ransom Townships, Lackawanna County, profiled local farmers, in the process showing how diverse and intricate were their agricultural strategies. For example, Charles H. Kresge had “a large dairy of twenty cows, producing both summer and winter milk, which he delivers to a dealer in Scranton. He also hauls milk for several of his neighbors. He is an extensive producer of cabbage, tomatoes, sweet corn, potatoes, etc., which he also sells in Scranton at profitable prices.” Edwin S. Miller of Newton Township had a dairy and a retail milk route to Moosic and Avoca, as well as crops of blackberries, cabbage, potatoes, hay, and corn.¹⁰ Others raised strawberries, grapes, pears, and plums for the local trade.



Livestock were not absent from the typical farm of the region, but it played a less prominent role than elsewhere in the state. No single enterprise stood out in 1880. Farmers raised about three each of milk cows and beef animals; around four pigs; and about three dozen chickens. This would not provide much beyond family needs. In a few cases, however, large-scale poultry-raising did occur; for example, a Prairie State

Incubator company advertising brochure from 1895 featured a Stroudsburg-area duck farm.¹¹ Dairying was followed on only a modest scale. As the chart shows, the Pocono-Anthracite region counties generally did not have large numbers of milk cows. However, in some townships dairying was relatively well developed. For example, by 1900, a report from the Montrose area noted that dairying was the “leading industry” there.¹² Mahoning Township in Carbon County; Smithfield in Monroe; Newton in Lackawanna; and Milford and Westfall in Pike County had greater than average butter production, and also were beginning to sell fluid milk in 1880. *The National Stockman and Farmer* reported in 1898 from Pike County that “the butter and egg market is very dull, but there are not many summer boarders here yet. They make quite a demand here for farm ‘stuff.’”¹³

It would seem as if lumber or other wood products might have an important role, since so much acreage on the typical farm in the region consisted of woodland. But the 1880 agricultural census figures do not confirm this. The area had been intensively exploited for tanning, lumber, and cordwood, so likely the valuable timber was already depleted. Figures were even low for farm-produced cordwood. While lumbering continued in the region, it does not seem to have been a major activity pursued on farm woodlots. One source did mention an illicit Christmas tree trade that supposedly flourished in Monroe County in the 1875-95 period. These trees were not grown, but rather gathered; the report alleged that thousands of mature spruce trees were felled, then topped every year by poachers and sold to New York City and Philadelphia markets.¹⁴

One significant product before mechanical refrigeration came into widespread use was ice. In the Pocono highland area, ice was regularly harvested during the winter from the many lakes and ponds in the region, and also from the Delaware River. Many local people harvested just for their own use and stored ice in a small ice house, but ice harvesting reached commercial proportions as well. An undocumented assertion on a website devoted to Pocono history states that “From 1900 to 1936 Tobyhanna and Gouldsboro lakes in Monroe County were the site of active ice industries. The ice was cut from the lakes over the winter months and stored in large underground structures. During

the summer months the ice was packed in railway boxcars hauling fresh produce all over the east coast.”¹⁵ Surely ice was also in demand for the summer resort trade.



Exterior of the Metz ice plant, Pike County, c. 1869. Pennsylvania Historic Preservation Bureau file photo.



“Cutting Ice along the Delaware River.” Photocopy of a photograph, date unknown. Recorded by the Historic American Buildings Survey at the William Kautz Farm in Smithfield Township, Monroe County. Digital ID <http://hdl.loc.gov/loc.pnp/hhh.pa0611>.

Other products that were gathered rather than deliberately raised included huckleberries and nuts.¹⁶

Labor and Land Tenure, 1860-1915

19th and early 20th century farms in the Pocono-Anthracite region were tended by family members and neighbors. Overwhelmingly, farms in the region were owner-occupied. It seems very likely that farm family members, especially men, found work off the farm at least part of the year. The gender implications of off-farm opportunities for this period are not clear. The major industries employed men, so it is likely that women shouldered much of the farm work. It is difficult to say if women did more farm work than elsewhere, but period photos show women working at spraying apple trees; harvesting potatoes; tending poultry; churning butter; harvesting field corn; haying; tending strawberries; and butchering.¹⁷ Alice Schwartz, a Monroe County farm woman, kept a diary in the 1870s in which she mentioned butchering and cider making as well as baking. On May 20, 1875, she wrote: “This morning we commenced to plant corn and worked hard all day.”¹⁸



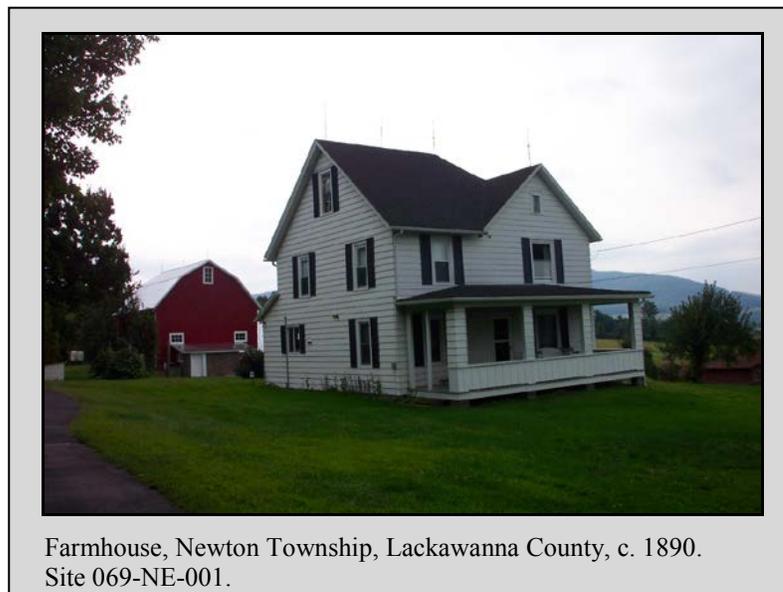
This turn of the century photograph documents women washing clothes at the Villa Sylvania, Greentown. Greene-Dreher Historical Society website, <http://www.greenehs.org/phGreentown7.html>, accessed April 20, 2011.

Farming here was slightly less mechanized than was typical, probably because of terrain, smaller cultivated area, and lack of access to financial resources.

Buildings, 1860-1915

Houses, 1860-1915

Historic photographs suggest that -century farm houses represented standard regional types. Simple three-, four-, and five-bay, two-story gabled farmhouses were typical. Most had shallow roof pitch and two windows in the gable end, creating a footprint more square than rectangular. This was a well-known form in the Pennsylvania German section of the state, and indeed the Pocono-Anthracite region counties did historically have many residents of Pennsylvania German origin. A few two-door houses appear among the four-bay types. Earlier houses usually had restrained ornament; multi-paned sash windows; and end chimneys. Many now have porches, usually positioned across the front eaves. Some porches are two stories. For example, the Ebbert house in Carbon County was a two-story “ell” shape with eaves-side front porch, integral two-story porch in the ell, and two-story projecting bay with windows on the gable end. Most houses were constructed of frame, though a few stone and brick houses appear in photos. One house documented in field work is a 1½-story house with small “eyebrow” windows and classical trim, representing the New England tradition. The Hartman house in Monroe County also has this form. Later farm houses often show a one-or two-story ell and sometimes appear to have been constructed all at once in a two-story ell form.¹⁹



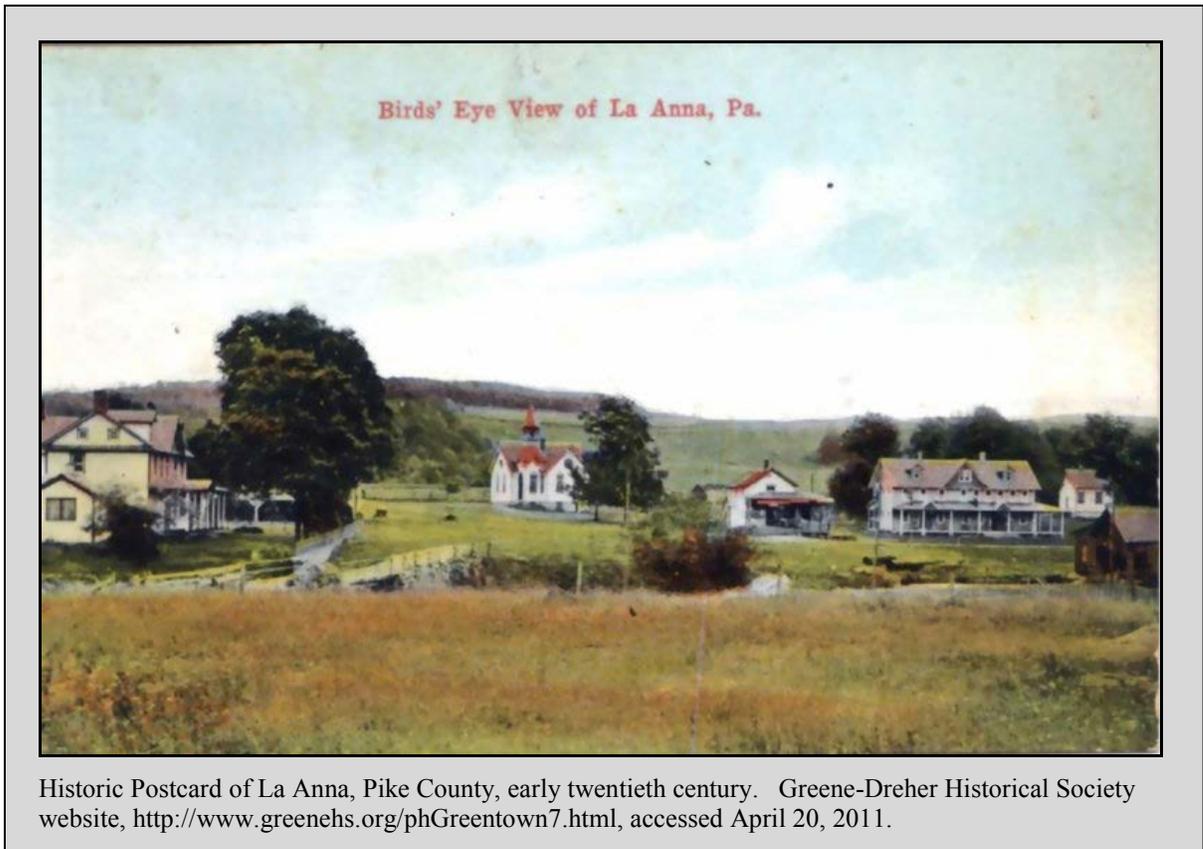
Farmhouse, Newton Township, Lackawanna County, c. 1890.
Site 069-NE-001.



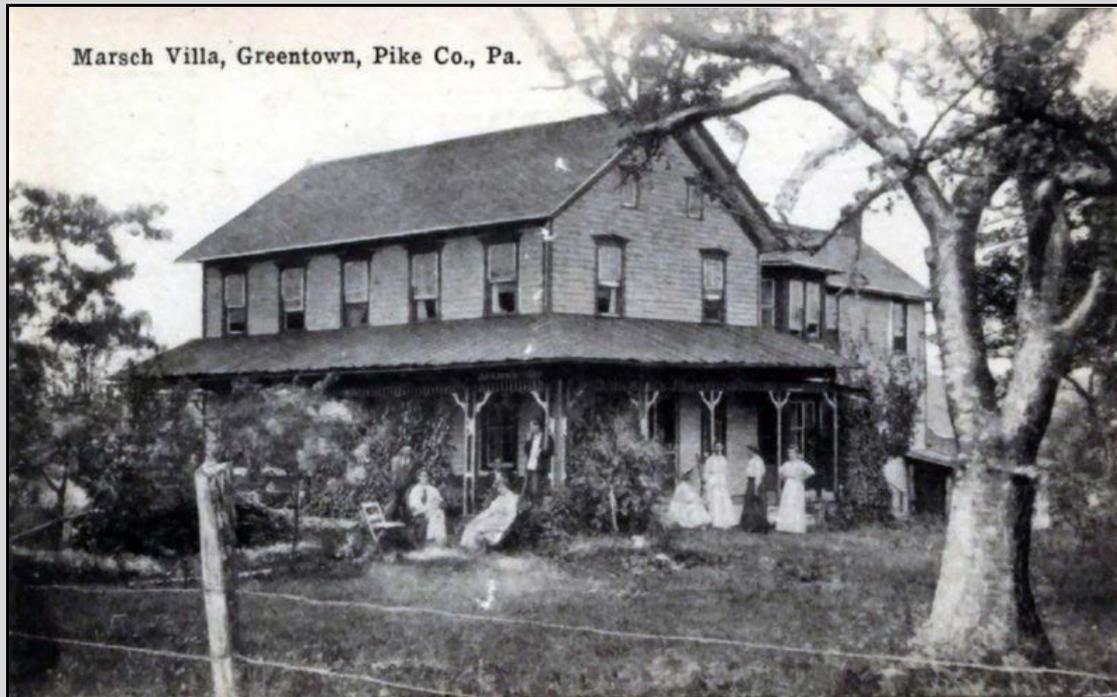
Samuel Michael House, Middle Smithfield Township, Monroe County, built mid- century; a porch added in the 1890s; this was replaced in the 1930s by the owner, Chauncey Dimmick, and at about the same time the rear ell was raised to two stories and an external stair access to the second floor added. Photocopy of photograph from the collection of Mr and Mrs John A. Farrington, Lititz, Pa. Photographer: unknown; date, about 1935. Recorded by the Historic American Buildings Survey. Digital ID <http://hdl.loc.gov/loc.pnp/hhh.pa0601>. The owner from 1900 to 1937, Chauncey Dimmick, was a farmer with 136 acres. His year-round household had only two people, so it is very possible that the alterations were made for summer boarders.

A variation on this basic farmhouse form appeared in the Pocono region as housing to accommodate summer boarders. There was a sector in the resort business which grew from farms converted to accommodate summer visitors, as individual farm families recognized that money could be made from hosting city guests. In an article in *Field and Stream* in 1890, for example, an avid hobby fisherman from New York City described “Brookside Cottage” in Cresco, Monroe County, “where we were cordially welcomed by good, motherly Mrs. Crane, Misses Jenny and Fanny...” The same man had in 1888 described “A Pocono Paradise” on a farm in Canadensis, Monroe County, owned by two brothers named Price, and “presided over by their niece... the Prices own a farm of 300 acres, 40 of which are under cultivation on Brodhead Creek...”

There is architectural and visual evidence of how farm houses were modified to accommodate summer visitors. In Monroe County, for example, the county historic sites survey lists a farmhouse built in 1884, whose owners took in summer boarders. A full front porch constructed of ornate Victorian ornament spanned the front, and an integral two story ell could have housed boarders. A separate side entrance may have provided privacy for boarders or family. The Birds' Eye View of La Anna, PA, just over the Monroe County line in Wayne County, shows a large house whose sprawling size, large front porch and small, multiple second-story windows all suggest accommodation for boarders.



Historic Postcard of La Anna, Pike County, early twentieth century. Greene-Dreher Historical Society website, <http://www.greenehs.org/phGreentown7.html>, accessed April 20, 2011.



Marsch Villa, Greentown, Pike County, photographed late or early century. Greene-Dreher Historical Society website, <http://www.greenehs.org/phGreentown7.html>, accessed April 20, 2011. The photo shows nicely how an ordinary farmhouse could be turned into a summer boarders' retreat. This five-bay, center-door house was surrounded by a wraparound porch and extended with a two story ell. A two story bay with large windows (not quite a bay window) looks as if it may have supplied a well-lighted sitting room.



Maplewood Farm, Greentown, Pike County, post card view, c. 1930. Greene-Dreher Historical Society website, <http://www.greenehs.org/phGreentown7.html>, accessed April 20, 2011.



Maple Grove Cottage, Greentown, Pike County, photograph, late or early century. Greene-Dreher Historical Society website, <http://www.greenehs.org/phGreentown7.html>, accessed April 20, 2011. Here the two story bay is more visible; its open windows link the interior and exterior spaces and make the bay like another porch.

Dona Brown, in *Inventing New England: Regional Tourism in the Century*, has shown how the rise of tourism in general, and the “farm vacation” in particular, “played a crucial role in organizing relations between isolated backwaters and industrial centers” and made market relations pervasive in every aspect of tourist business, essentially commodifying a cultural experience. She astutely observes: “Perhaps it is most useful to see the farm vacationer as someone standing on contested terrain in the most literal sense, taking a position that could be understood either as a kind of muted resistance to some aspects of urban industrial life or as a pleasant retreat from some of its symptoms.”²⁰ Brown also points out that hosts were in an ambiguous position; were they hosts, or servants?

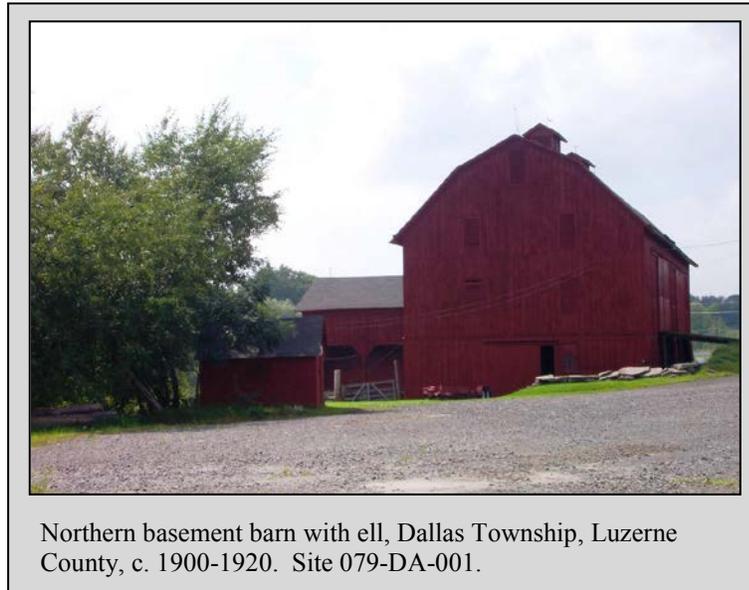
Thus, farmhouse architecture in the region drew from cultural repertoires of Pennsylvania German and New Englanders, and in some cases farmhouses were architecturally outfitted to serve summer boarders.

Barns, 1860-1915

Historic photos and field survey work reveal that the Pennsylvania Barn, Basement Barn, Three-Gable Barn, and English Barn appeared in the two regions. (For explanations of these types, see the Agricultural Field Guide of the Pennsylvania Agricultural History Project website at http://www.portal.state.pa.us/portal/server.pt/community/agricultural_field_guide/2585).

These barn types reflected the local agriculture and the cultural background of rural people. All served highly diversified crop and livestock systems. The sources suggest that the Pennsylvania Barn was more common in the southern portion, ie Carbon, Schuylkill, and Monroe Counties, while Basement Barns were documented more frequently in Lackawanna and Luzerne Counties.²¹ This distribution reflects differences

in production (more dairy activity in the northern counties nearer large urban areas, more general farming in other areas) and culture (more Yankee and New Yorker influence in the northern areas, more Pennsylvania German in the southern portions.) At least one English Barn was also



Northern basement barn with ell, Dallas Township, Luzerne County, c. 1900-1920. Site 079-DA-001.

documented; this form would have been appropriate for the relatively smaller scale of agriculture in the region. Three-Gable barns also appeared but were less common.



Pennsylvania forebay barn with gambrel roof, Dallas Township, Luzerne County, c. 1900. Site 079-DA-002. It is not known if the gambrel roof was original, or a later alteration.

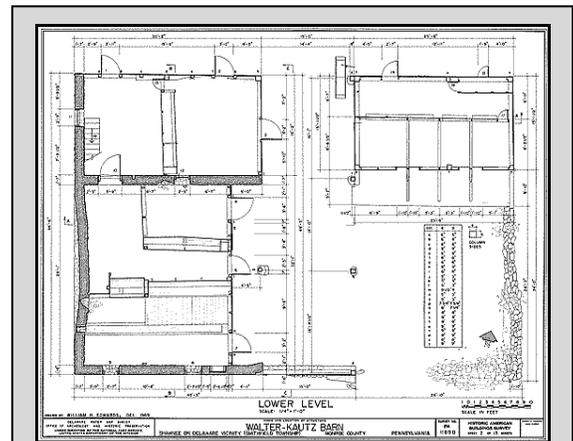


English barn, Ransom Township, Lackawanna County, c. 1860-1890. Site 069-RA-001.

The Walter-Kautz barn in Shawnee on Delaware, Monroe County, was erected about 1877, according to the HABS documentation. The documentation shows a Pennsylvania barn with a forebay, which later was altered so that the forebay side was extended and enclosed, then connected to a hog pen oriented perpendicular to the barn.



Walter-Kautz Farm, Barn, Smithfield Township, Monroe County, c. 1877. Photographed by Jack E. Boucher in 1969. Historic American Buildings Survey, digital ID <http://hdl.loc.gov/loc.pnp/hhh.pa0613>. The floor plan below shows how a Pennsylvania forebay barn was converted to this barn.



Walter-Kautz Barn, Lower Level floor plan. William H. Edwards, Delineator, 1969. Historic American Buildings Survey, digital ID <http://hdl.loc.gov/loc.pnp/hhh.pa0613>.

This barn was well adapted to the type of agriculture developing in the region. The original barn was about 30 by 48 feet. The lower level was divided into two main spaces. The larger would have had stalls and stabling to accommodate the pair of mules, five cows and steers, and possibly the 13 swine listed on the 1880 census.²² The other area

likely sheltered farm implements. The upper level was equipped with double hay mows, threshing floor, and grain/feed storage area. The 1880 census shows the owner, William Walter, reporting small quantities of buckwheat, oats, rye, and wheat that likely would have been stored there. Around 1880, a separate combination machinery storage and corn crib was erected. Alterations to the barn supported additional livestock where the machinery had been; a loft and sheltered area across the forebay provided more storage; and a hog pen provided more specialized quarters.

Ice Houses, 1860-1915

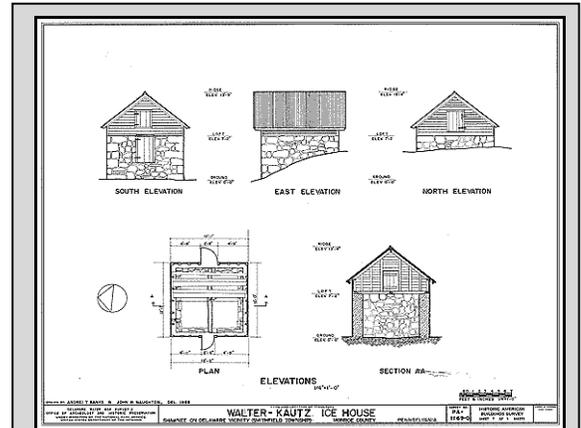
In fieldwork, one early 20th century ice house was documented. In the Pocono-Anthracite region, ice houses were important in the local-production economy in the pre-refrigeration era.



Ice house, converted to garage, Ransom Township, Lackawanna County, date unknown. Site 069-RA-001.



Ice house, Walter-Kautz Farm, Smithfield Township, Monroe County, c. 1880. Photographed by George Eisenman in 1968. Historic American Buildings Survey, digital ID <http://hdl.loc.gov/loc.pnp/hhh.pa0615>.



Ice house, Walter-Kautz Farm, Smithfield Township, Monroe County, c. 1880. Drawn by Andrei T. Banks and John Naughton in 1968. Historic American Buildings Survey, digital ID <http://hdl.loc.gov/loc.pnp/hhh.pa0615>.

Spring Houses, 1860-1915

There should be spring houses in the survey area, but none were documented in limited field work to date (June 1, 2009).

Lime Kilns 1860-1915

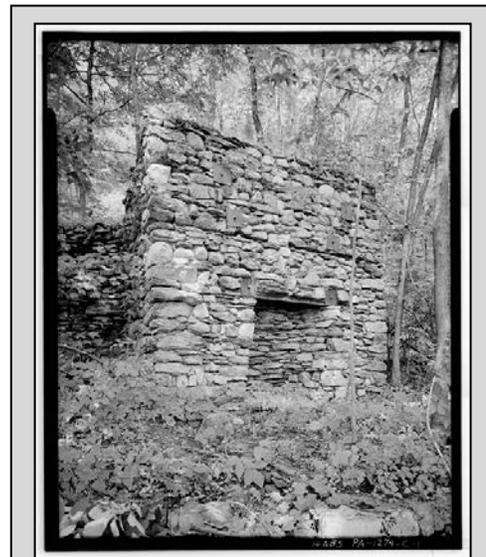
Lime kilns produced lime for agriculture and other uses. They are not common in this region.

Smoke Houses, 1860-1915

Thomas Eckhart's well-illustrated history of Carbon County shows a small "Heisel" (or "little house") which was used for butchering and smoking.²³

Summer Kitchens, 1860-1915

In the Pocono-Anthracite region, as elsewhere, the summer kitchen served to remove hot and dirty cooking and food processing from the main house. Ordinary farm work such as sausage



Lime kiln, John Turn Farm, Middle Smithfield Township, Monroe County, date unknown. Historic American Buildings Survey, digital ID <http://hdl.loc.gov/loc.pnp/hhh.pa0606>. Photographer and date unknown.

making and canning would take place here. For this region the summer kitchen should not be underestimated as a site of income-generating production, since it is likely that farmer-hucksters took such items as canned goods along on their routes; and in the tourist regions, the summer kitchen may have had especially heavy use during the tourist season, when a farm wife might be cooking for

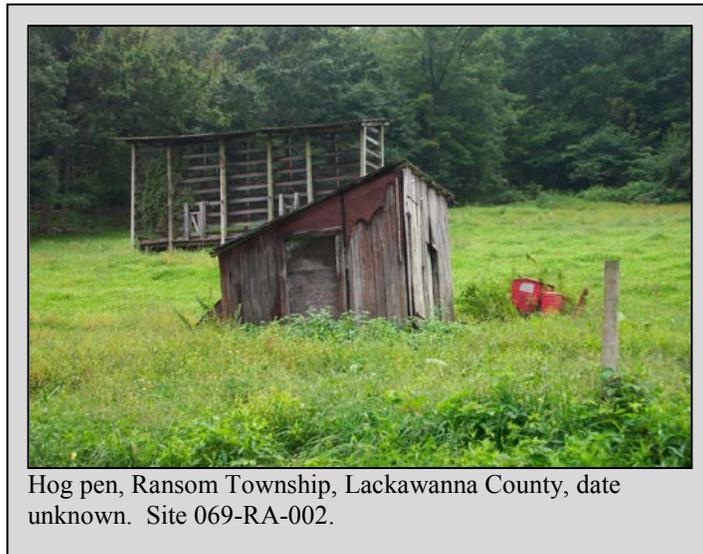
several extra people. In other words, the summer kitchen may claim an enhanced place when interpreting farmsteads in the Pocono-Anthracite Region. Summer kitchens appear in period photos and field documentation.²⁴



Summer kitchen, Ransom Township, Lackawanna County, c. 1910-1940. Site 069-RA-002.

Hog Pens, 1860-1915

Most farm families in the region kept at least a few pigs, probably mainly for home consumption. Small frame buildings reflect the modest numbers in this period.



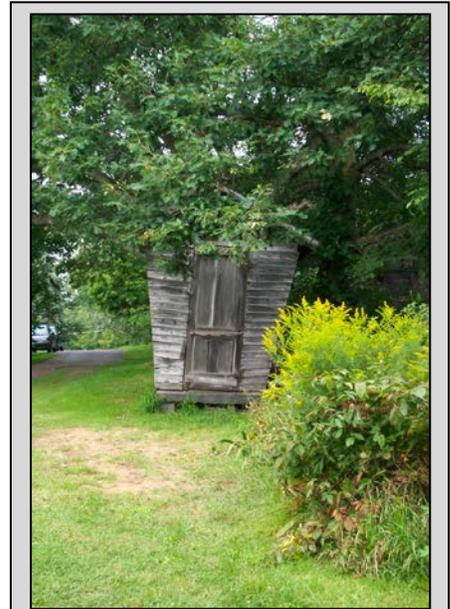
Hog pen, Ransom Township, Lackawanna County, date unknown. Site 069-RA-002.

Corn Cribs, 1860-1915

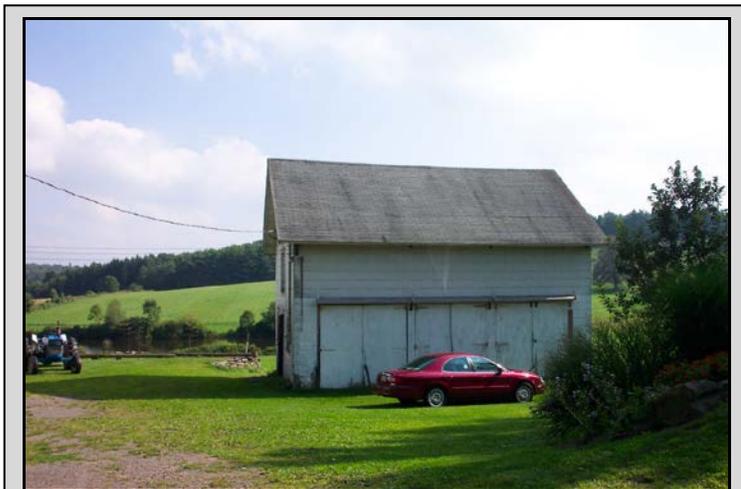
Since corn production in the region was relatively low, small shed-roof or keystone shaped corn cribs sufficed in this period.²⁵

Carriage Houses, 1860-1915

It would not be surprising to find carriage houses on farms in this region, since so many farmers marketed direct to the cities and would have a vehicle fitted out to hold farm products.



Corn crib, Newton Township, Lackawanna County, late 19th or early 20th century. Site 069-NE-001.



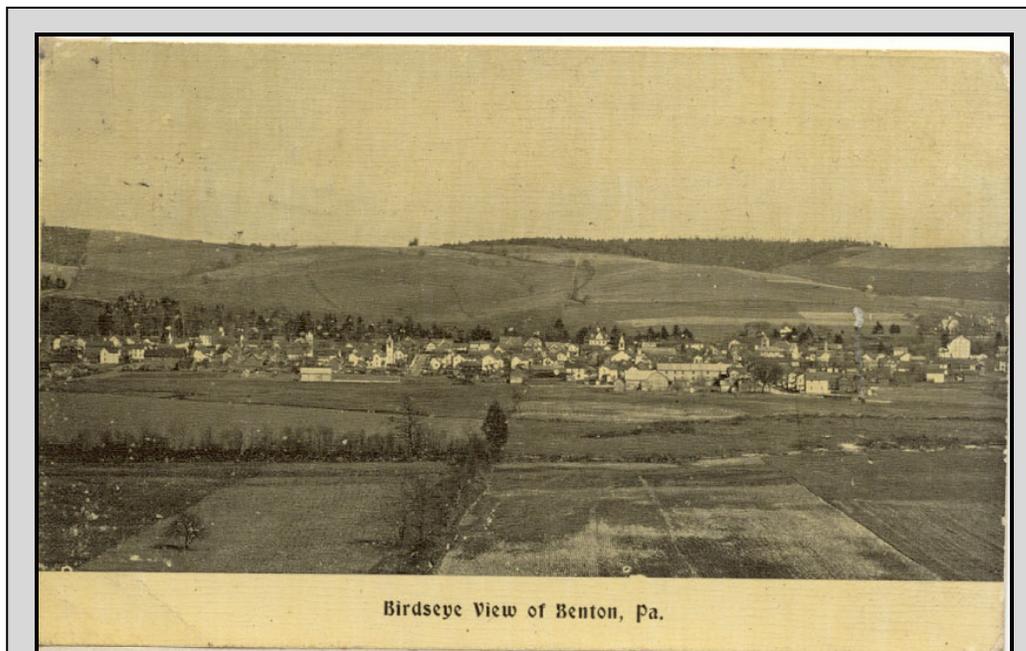
Carriage house, later converted to a garage, Dallas Township, Luzerne County, c. 1900-1930. Site 079-DA-002.

Landscape features, 1860-1915*Fields 1860-1975*

The following two early 20th century photos of Benton, Luzerne County show important agricultural landscape features of the Pocono-Anthracite Diversified Agriculture region: small, irregularly shaped crop fields; treelines between fields; and prominent woodlots. In the lower one, a stone fence/treeline is also visible.²⁶



Benton, Luzerne County, 1907. This historic picture postcard was posted on a historical website dedicated to Lower Luzerne County. The site is no longer online.



Birdseye View of Benton, Pa.

"Bird's-eye view of Benton, PA," (Luzerne County), early 20th century. This historic picture postcard was posted on a historical website dedicated to Lower Luzerne County. The site is no longer online.

Boundary markers, walls, and fences 1860-1915:

Stone fences are not uncommon in this region. Their history is not well understood. Possibly the New England stone drywall fencing tradition travelled to this region.



Stone wall remnant, Newton Township, Lackawanna County, date unknown. Site 069-NE-001.



Stone fence, Newton Township, Lackawanna County, date unknown. Site 069-NE-002.

Treelines: as above, often treelines and irregular stone fence piles twined together to mark field and property boundaries.

Large Woodlots: Most farm properties had a greater acreage in woodlot than in cultivation.

Small Orchard: Virtually every farm had an orchard with at least several dozen apple trees. Apples were an important staple for the city markets. In some instances free range chickens were housed among the orchard rows. Their presence was beneficial because they ate insect pests that could harm the trees.

1915-1940: Diversified Vegetable, Fruit, Poultry, and Dairy Production for Local Markets

The early part of this period witnessed peaks of economic prosperity in the anthracite and Pocono regions. These were followed by downturns. The Great Depression hit tourist areas hard; unemployment also mounted in the coal region. Yet despite economic fluctuations, several notable trends in agricultural patterns characterized the period from beginning to end. One was increased importance of highways and motor trucks in the

food distribution system. As a result, the truck farming “shed” widened, creating both opportunities and challenges for local producers. A second important trend was in the shift to a more highly mechanized, capitalized, scientific mode of farming, mainly as promoted by the agricultural extension system. Horse power still prevailed, but other power sources, such as tractors and stationary gasoline engines, were used with greater frequency. A third trend was an expanded role for poultry-raising and dairying relative to other enterprises, but still within a context of highly diversified production. Finally, second-generation immigrants formed a significantly greater proportion in the farming population by the 1920s, as people of Eastern European, Baltic, and Southern European extraction began to acquire farms. Local officials gave estimates of about 20 to 30 percent by the late 1930s.

Products, 1915-1940

Production patterns that had taken hold in the previous decades were developed during this period. As before, vegetable truck produce, potatoes, fruit, poultry, hay, butter, and fluid milk were the main farm products. Fresh meat, poultry, and eggs continued to occupy an important place in the farm economy, with poultry’s place significantly enhanced. Dairying, too, (though still not especially notable within a statewide context) claimed a proportionally greater place than before in the Pocono and Anthracite regions. The data seem to show that the local farming economy was getting sorted out during these decades, into types on quite different ends of a spectrum from specialized to diversified. The 1929 “types of farming” study done by the Penn State Agricultural Experiment Station showed about 25 townships in the two regions where truck farming, “crop specialty” (probably potatoes), fruit, dairy, and poultry were either the predominant “types of farms” or the second most predominant types. The remaining townships were classed as “General,” “Abnormal,” or “Self-Sufficing.” “General” farming was considered farming in which no single item accounted for “as much as 40 percent” of the total value of items produced. “Abnormal” farms were mainly part-time farms where the operator spent 150 or more days off the farm doing non-farm work, and the value of products was under \$750, but this category also included the “boarding and lodging” establishments that would appear in the vacation region. On “Self-Sufficing” farms the household members used at least 50 percent of the total value of farm products. So

overall, the range of farming types represented in the Pocono and Anthracite Region was perhaps wider than in other parts of the state.

Dairying received greater attention. In 1919, for example, the Monroe County agricultural extension agent helped to set up a milk shipping station in Stroudsburg, in collaboration with the Dairymen's League. They sent milk through Northern New Jersey and on to New York City.²⁷ Dairy producers who wanted to compete had to respond to pressures from urban municipalities and also from sophisticated "summer guests" who expected "Grade A milk and milk from Tuberculin Tested herds..."²⁸ Farm-made butter, cheese, and ice cream were also produced for the resort trade.²⁹

Resort clientele had long indirectly influenced agricultural practice simply through demand, but now they also exerted more overt pressure on farmers. For example, in 1919 the Buck Hill Falls Association, a group of resort owners in Barrett Township, Monroe County, announced to local fruit growers that they would "purchase at good prices all sprayed and perfect fruit produced in Barrett Township during the next five years...." Their action prodded the growers to organize an Apple Club to collectively purchase a power sprayer and supplies. Vegetable growers also received coaching from the Buck Hill Falls purchasing agent.³⁰

Poultry farming rose in importance during the interwar years. On average, Pocono and Anthracite region farms had equal or greater poultry production than statewide. Chickens, eggs, and turkeys increased in number.³¹

Market garden production continued in its popularity. In 1924 the Monroe County Agricultural Extension Agent noted that "the demand for fresh vegetables in the resort section of the county and from the traveling public, has given an impetus to the development of the Home Garden and to small truck gardens."³² Cabbage was still popular among the miners and factory workers.³³ Asparagus, tomatoes, small fruits, and many other items were also grown. Important though market gardening was in the local economy, most produce was imported from other places. "Resort hotelmen," for example, bought from New York City and Philadelphia.³⁴

Potatoes were a popular crop for sale. Spraying became common – one Monroe County grower sprayed his crop sixteen times in 1927.³⁵ The Carbon County agricultural extension effort put a lot of energy into potato issues including fertilizer, certified seed, and spraying regimens. Six hundred farmers participated in a Potato Growers' Auto Tour in 1923.³⁶

A few farmers raised Christmas trees on a large scale.³⁷ Field crops were modest, but wheat, rye, and oats were still commonly cultivated. In Carbon County, wheat was still raised because it was a key component in poultry feed.³⁸ Alfalfa became more popular in the late 1930s, according to Agricultural Extension Agent reports. Notably, hay became less important during this period, because horse power on farms, in mines and in cities was being replaced by the internal combustion engine.

Farm products were marketed in several ways. The Agricultural Extension Agent reported in 1920 that

A very noticeable increasing interest is found among our farmers in improving the marketing methods. Some farmers are fortunate in having good reliable hucksters pass their doors weekly, purchasing nearly all kinds of farm products. In some cases these hucksters are country merchants who carry along the staple groceries needed in farms. Other folks live near Boarding Houses where tourists (our main crop in the Poconos) are plentiful, creating a demand for farm products from June 15th to October 15th and in a few cases, during the entire year. Still other folks are without any markets and must depend on apple or potato buyers coming their way.³⁹

Some farmers did their huckstering themselves. The Carbon County Agricultural Extension Agent noted in 1917 that "the farmers of Carbon County raise a great deal of truck crops which are usually disposed of in the neighboring towns by what is known as street huckstering."⁴⁰ The city curb market furnished another important outlet for growers. The Monroe County extension agent remarked in his 1925 report that "One

lady from the west end of the county who markets fresh meats and poultry along with other farm products [in Stroudsburg] reports that she has never taken in less than one-hundred dollars on any Saturday market day...” Another method of marketing was through contracts with resort organizations.⁴¹ Yet another was through roadside stands.

Ice continued to be an important “crop,” more properly gathered rather than cultivated, but still economically important.

Labor and Land Tenure, 1915-1940

Land ownership rates continued to be very high in the region. As before, family and neighborhood labor were central. Particularly during the Depression years, most families could not afford to hire much outside labor. It seems likely that unemployment among men during the Depression may have caused the farm to become a “hedge” in difficult economic times; that is, the farm could provide subsistence when there were few sources of cash income – as long as farm people could pay taxes and mortgages. Types of labor performed by family members probably changed somewhat as the proportions in the product mix changed. For example, with greater attention to poultry-raising usually came greater involvement by men – though not yet complete control by any means.⁴² The auto changed farm life, and created new tasks and patterns of mobility for both men and women. Intensive dairying imposed greater structure on farm routines and tended to create sharper gender lines, with men doing more dairying work and women less, on the whole. But in the bigger picture, most farm tasks were not strictly gendered. Photos of potato-picking, for example, show men, women, boys, and girls. There were some labor patterns distinctive to the region. For example, women usually handled the summer boarding business and often also raised and sold market garden produce.⁴³ Women also did canning for sale in the tourist and industrial areas.⁴⁴ And, as before, on part-time farms where men worked off the farm, women and children probably did a good deal of the general farm work.

Mechanization still lagged behind in this rugged and less-affluent agricultural region. The Wayne County Soil Survey, published in 1938, noted that equipment was quite limited and some threshing was even still done with a flail.⁴⁵ The average number of

horses per farm in 1927 was less than two, suggesting that many farms lacked even one team of horses.

Buildings, 1915-1940

Houses, 1915-1940

Comparatively few sites have been surveyed in this region, as of this writing (May 28, 2009). However, the evidence suggests that little new house building took place during this period of economic retrenchment.

Barns, 1915-1940

As with farm houses, new barns were comparatively uncommon during this period. Renovations to accommodate poultry and dairy were frequent.

Poultry Houses, 1915-1940

Poultry houses would have become more important during this phase, as the business expanded in the region.⁴⁶ To some extent, specialization within this category might be expected. For example, brooder houses were purpose-built to house young chicks. They tended to be small and to be heated. Broiler houses (raising chickens for meat) and layer houses (for eggs) are hard to differentiate; both tended to have ample windows, entrance doors for the birds, and human doors. Colony houses were small, movable shelters that accommodated pastured poultry production. Hatcheries and turkey houses were probably uncommon.

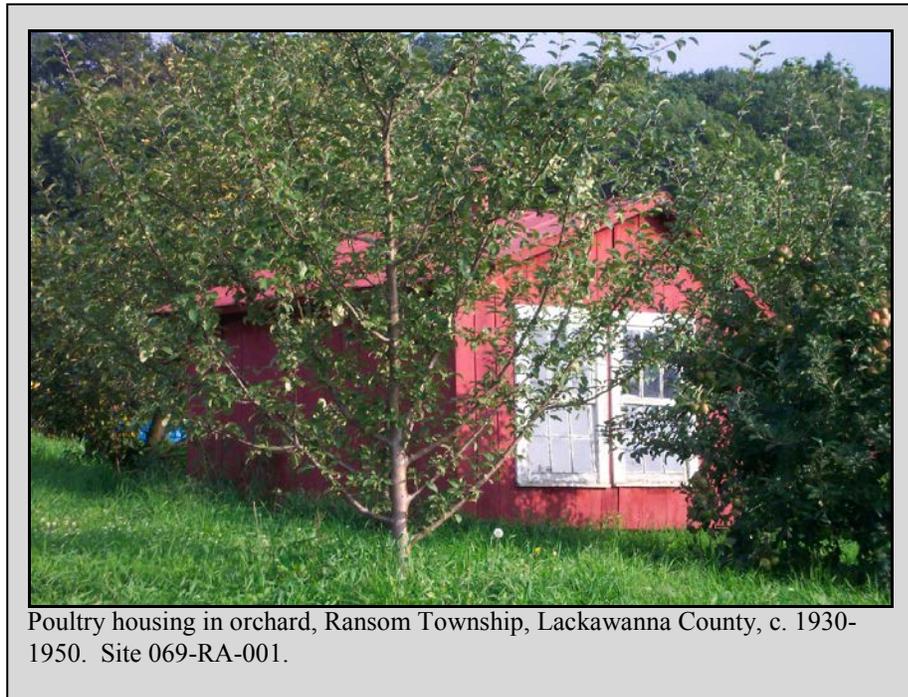


Brooder house, Ransom Township, Lackawanna County, c. 1920-40. Site 069-RA-001.



Poultry houses sited in orchard to provide natural pest control, Newton Township, Lackawanna County, c. 1930-50. Site 069-NE-001.

At survey site 069-NE-001, a number of poultry houses were set up in an orchard. This is notable because it combined orchard raising and poultry-raising in such a way that the birds helped with orchard pest control. This site was in Newton Township, Lackawanna County, one of the primary farming communities serving the Scranton and Wilkes-Barre anthracite coal area markets. A similar arrangement was documented in Ransom Township, Lackawanna County, at survey site 069-RA-001.



Summer Kitchens, 1915-1940:

Summer kitchens continued in use, probably right up to the end of the period.

Sash Houses or Greenhouse, 1915-1940

Limited field survey work has not documented any of this building type, but given that market garden production was so important in the area, it is likely that there may have been small sash houses or even greenhouses on farms.

Root Cellars, 1915-1940

The importance of potatoes and market crops made storage an issue on some farms.

Fruit-Related Buildings, 1915-1940

Fruit was important in several townships bordering the anthracite coal cities. Field survey located one cider house that was firmly documented. Several others have a more tentative, but still plausible, identification as buildings intended for fruit packing and basket storage. At survey site 069-NE-002 there is a small ground-level barn with gable-end openings directly onto the road. This too could have functioned to house fruit storage, packing, and loading. At survey site 069-RA-001, a cold storage building and cider house represent fruit growing and processing during this period.



Root storage building, Dallas Township, Luzerne County, c. 1920-40. Site 079-DA-001.



Possible fruit packing house, converted to garage, c. 1930-50, Newton Township, Lackawanna County. Site 069-NE-001.



Cider house, Ransom Township, Lackawanna County, c. 1920-40. Site 069-RA-001.



Cold storage building, Ransom Township, Lackawanna County, c. 1940-60. Site 069-RA-001.

Silos, 1915-1940

As dairying became more important, especially in the urban corridor of the Wyoming Valley, silos appeared. Several fine early examples were documented in field work.



Metal silo, Dallas Township, Luzerne County, c. 1930-50. Site 079-DA-001.



Wood stave silo, Newton Township, Lackawanna County, c. 1900. Site 069-NE-002.

Milk Houses, 1915-1940

The Monroe and Carbon County Agricultural Extension records show an unusually clear documentation of how the appearance of milk houses was related to sanitation requirements and municipal ordinances.⁴⁷ The Carbon County agent reported, for example, in 1925 that:

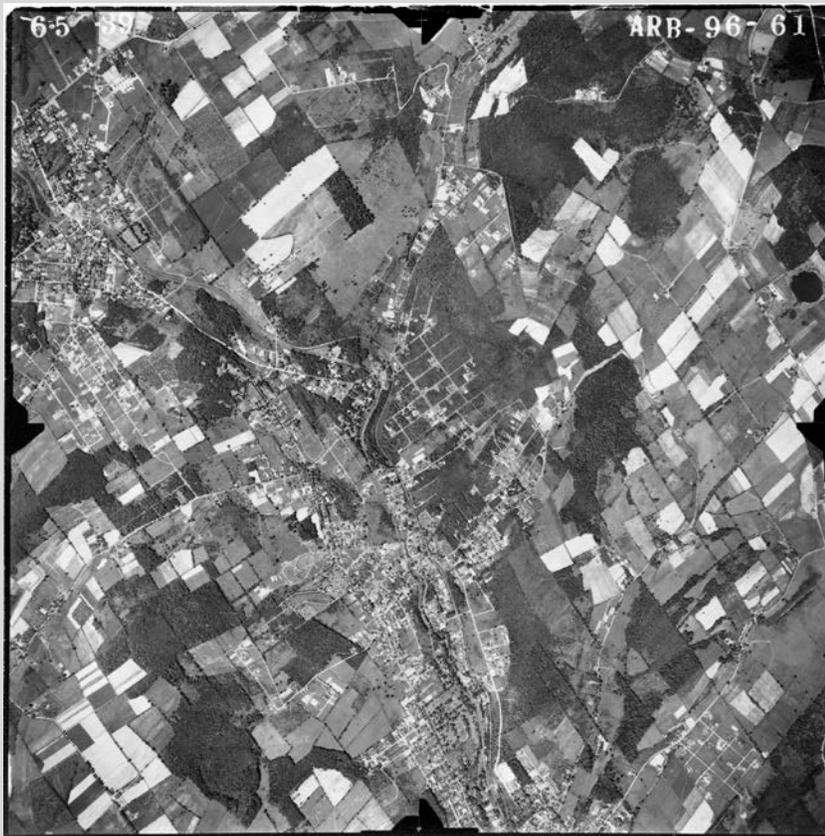
... the milk inspector for the Borough of Palmerton and the Borough of Lehighton.... helps the farmers a great deal in working out their sanitary problems --- telling them how to clean their stables; how to handle the milk; what kind of utensils to use, as well as a number of other things that are required of the farmer through the milk ordinances that were started in the various Boroughs.

Landscape Features, 1915-1940

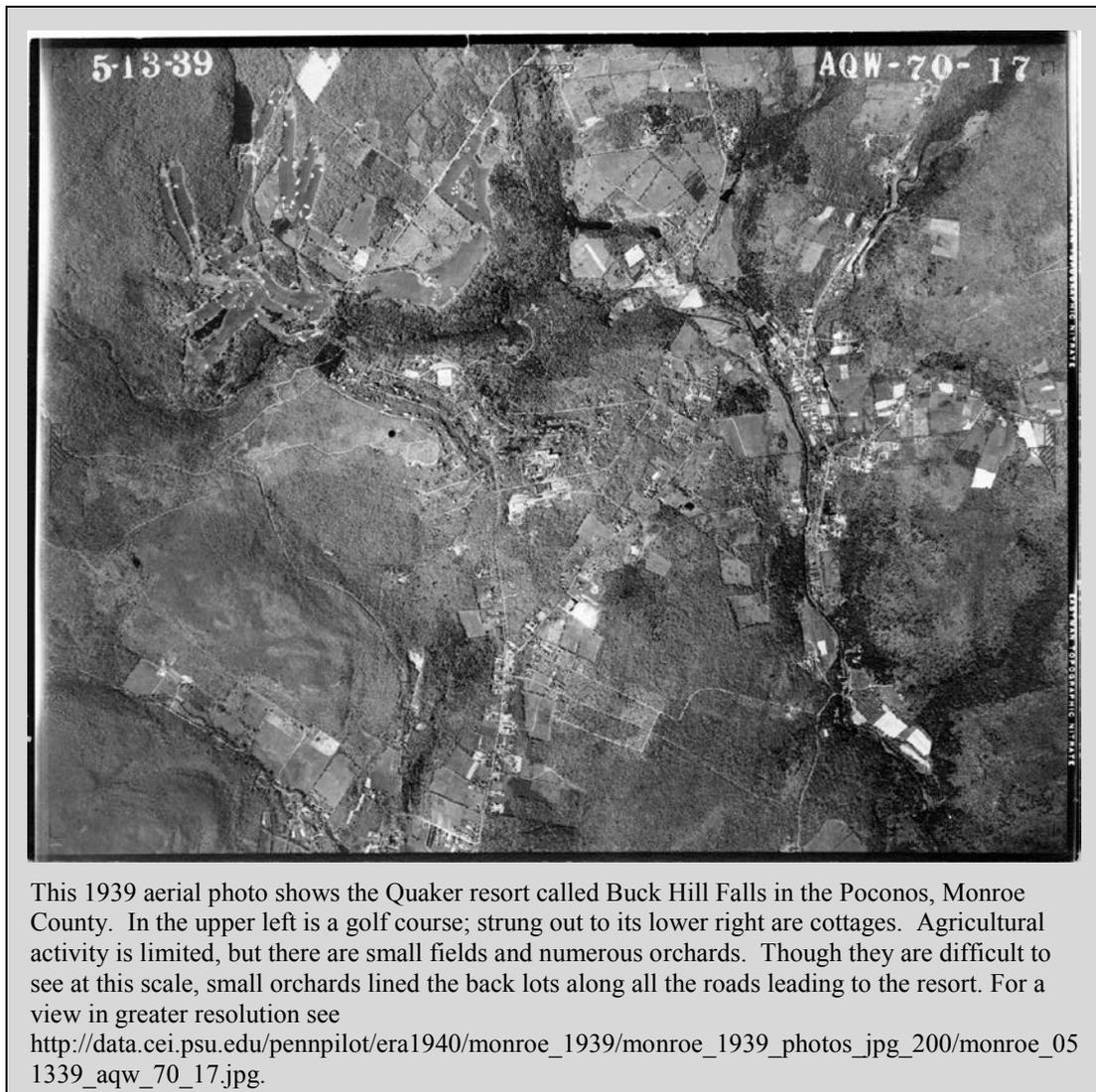
Small Fields: Crop, Meadow, Pasture – The Monroe County agricultural extension agent noted as late as 1940: “A lot of fields in Monroe County do not lend themselves to strip cropping because of stone rows and irregular small fields.”⁴⁸



Milk house, Newton Township, Lackawanna County, c. 1930-50. Site 069-NE-002.



This 1939 aerial photo of Dallas, PA, in the Wilkes-Barre vicinity, shows a patchwork of small fields; many orchards; back lot gardening in the towns; woodlots; and possibly some strip cropping, at lower left. From the Penn Pilot project: <http://www.pennpilot.psu.edu/>.



This 1939 aerial photo shows the Quaker resort called Buck Hill Falls in the Poconos, Monroe County. In the upper left is a golf course; strung out to its lower right are cottages. Agricultural activity is limited, but there are small fields and numerous orchards. Though they are difficult to see at this scale, small orchards lined the back lots along all the roads leading to the resort. For a view in greater resolution see http://data.cei.psu.edu/pennpilot/era1940/monroe_1939/monroe_1939_photos_jpg_200/monroe_051339_aqw_70_17.jpg.

Strip Cropping and Contour plowing, 1915-1940: The aerial photographs show possible strip cropping, but contour plowing did not really become well established until after this period.

Stone Fences, 1915-1940: See 1860-1915 section for details.

Treelines, 1915-1940: Aerial photos clearly show that fields and pastures were demarcated by prominent treelines.

Large Woodlots: Even in 1927, a large percentage of the typical Pocono and Anthracite region farm was in woodland.

Christmas Tree Plantings: Extension agents report a few concentrated Christmas tree plantings, but these must be regarded as exceptional.

Orchard: As photos above demonstrate, orchards were very numerous, usually quite small, and dominated by apple trees. Remnants do survive.

Vegetable / Truck Plot: These would have been important features, but they are quite ephemeral.

Intentionally planted forest: in Monroe County, a few farmers began to intentionally plant forest trees, mostly evergreens.⁴⁹ Field work has not documented these, but they may remain.

Farm Beautification, 1915-1940: The

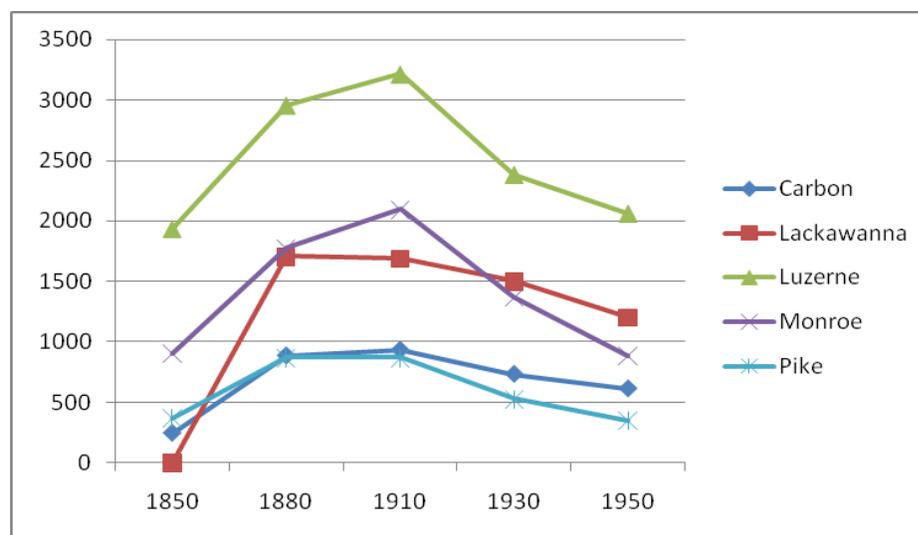


“Vine Cottage, Greentown PA” (Pike County) , early 20th century. This postcard photo shows an arbor, walkway, shade trees, and the vines. It is not clear that this is a farm boarding house, but it captures the idea of beautification through landscape and plantings. Greene-Dreher Historical Society website, <http://www.greenchs.org/phGreentown/fullimg/Vine%20Cottage.jpg> , accessed May 28, 2009.

Monroe County agricultural extension agent report for 1929 noted strong interest in farm beautification. In the Poconos, landscaping was not just a matter of aesthetic preference, but of good business sense, especially for boarding house owners. Field work to date has not documented remnants. Period photos show large shade trees, ornamental fencing and arbors, ornamental plants and shrubs (roses, etc), perennial gardens, and trellises with climbing vines. Except for shade trees, these would be ephemeral.

Ethnic Landscapes: Immigrant populations began to move into the countryside by about 1920. These people were first- and second-generation members of cultural groups ranging from Italians to Slovaks to Lithuanians. They may have followed cultural practices in landscape organization. Folklorist Gerald Pocius, for example, has documented Lithuanian landscape practices in Scranton urban lots.⁵⁰ However, since so many of these immigrants had farming in their recent history, it is possible that their farming in Pennsylvania retained some vestiges of old world practices. Further fieldwork should investigate whether this is the case.

1940-1960: Specialization, Industrialization, and Decline



Number of Farms, Pocono and Anthracite Region Counties, 1850-1950.

The period during and following World War II showed a steady decline in farm numbers in the region. The reasons were many. Nationally, farm numbers were declining and farm size was rising, as larger-scale capital-intensive specialized agriculture took hold, spurred both by policy and by the imperatives of late capitalism. Areas less advantaged with respect to soil and topography lost ground faster. The national interstate highway system flooded markets with low-priced, industrially produced fruit, vegetables, and meats from the far West and other regions. They supplied the new style chain grocery stores with standardized, mass quantities. Ironically, smaller scale local growers just

could not compete with produce brought in from thousands of miles off. In the Pocono-Anthracite region these general trends were compounded with local economic crises. The Poconos were still fairly popular, but they were losing ground to other types of recreation. Moreover, a shift in clientele (to honeymooners, for instance) and in vacation lifestyle meant that fewer visitors came for extended stays, or cared very much about local food. Employment in the anthracite region declined as other regions opened up, mining mechanized, and other sources of energy emerged. De-industrialization also brought unemployment and factory closings in related sectors. Lackawanna and Luzerne Counties experienced actual population decline between 1930 and 1950, while the other counties' populations remained stagnant. So overall, the story of agriculture here in this period is one of retrenchment. The farming operations that survived tended to go in the direction agriculture as a whole was heading – to larger, more mechanized, specialized, and capitalized business.

Products, 1940-1960

On the whole, farming became more specialized, capital intensive, mechanized, and industrialized during these years. Diversity of crops and livestock did not go away overnight, but it did diminish.

By 1949, the Luzerne County agricultural extension agent reported that dairying accounted for the greatest share of farm income in the county. Fluid milk only was produced; herds consisted increasingly of Holsteins; and farmers modernized their operations with the latest feeding techniques and milking machinery.

In Carbon, Monroe, and Luzerne Counties, agent reports from the mid 1940s to the mid 1950s mention cannery crops. Indeed, in Luzerne County, the agent reported in 1946 that 8,800 acres of cannery crops had been planted under contract to companies like Campbell and Chef Boy Ar Dee. This is a large acreage even within a statewide context. In Carbon County, a cannery was built during World War II to receive tomatoes from the local area. In 1946, 400 acres of tomatoes were contracted for in Carbon County.⁵¹ The burst in cannery crop-raising was brief, but it had an economic impact while it lasted.

Poultry-raising increased in scale. The Carbon County agent, for example, reported in 1944 that “where the flocks used to number 50 to 100, many of them are up to 500 and even 1000 today.”⁵² The historical sources give the impression that in turning to poultry-raising, farmers were seizing on one of few options available to them. Potatoes continued to be a specialty crop for a few farmers, especially in Carbon County.

Labor and Land Tenure, 1940-1960

Land ownership rates continued to be high. Labor patterns changed, significantly. Farm mechanization was very noticeable, with machinery for many specific tasks being acquired and used. There was a spiraling relationship between labor scarcity and farm mechanization. Family labor continued to be important, but wage labor also increased in importance. Farming labor became more “masculinized” as well. In places and times where cannery crop production was practiced, migrant labor from Puerto Rico was imported. This reversed an earlier trend whereby many of these same counties had exported labor to New York State and to Adams County, Pennsylvania for the fruit and vegetable harvest.

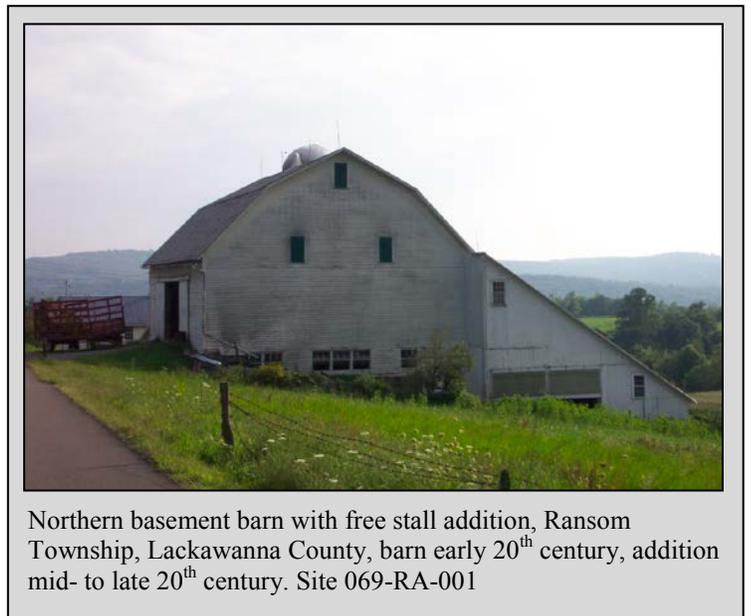
Buildings and Landscapes, 1940-1960

Houses, 1940-1960

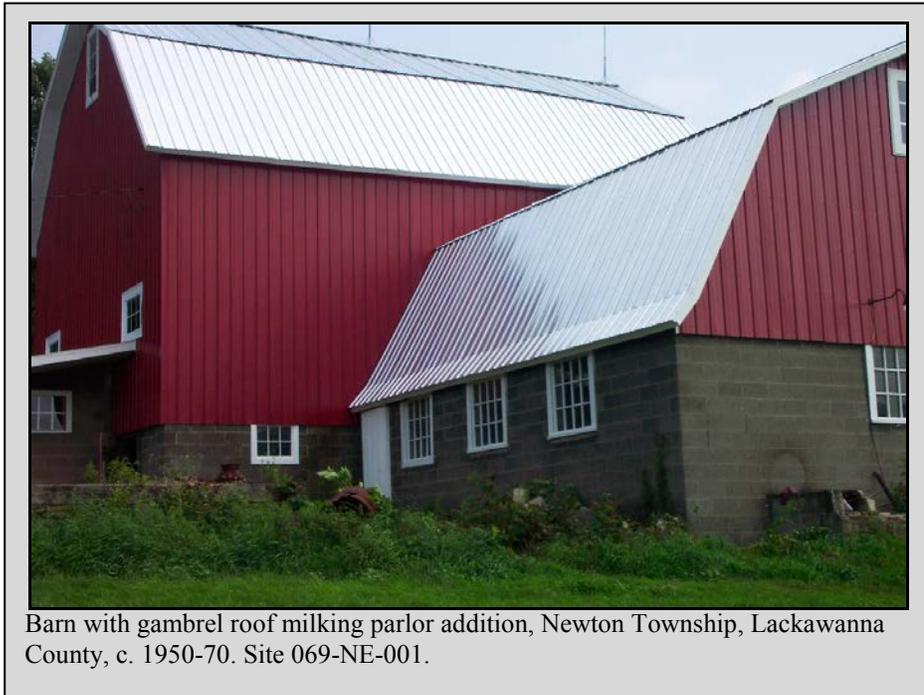
Field documentation recorded few farm houses erected during this period.

Barns, 1940-1960

Few new barns were documented in field work for this period. A few alterations were documented. For



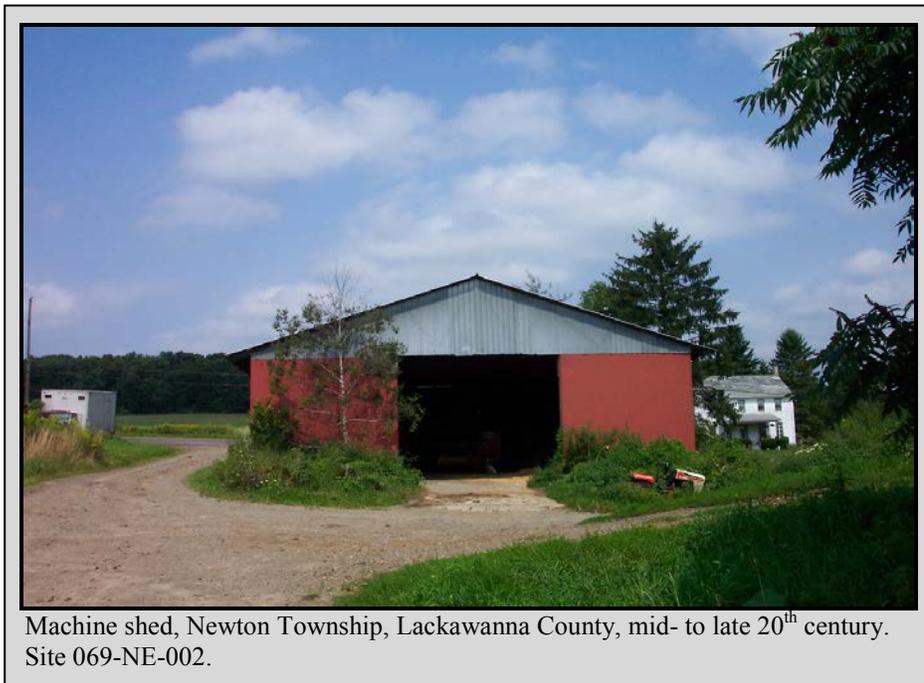
example, at site 069-RA-001 in Ransom Township, Lackawanna County, a shed-roof free stall addition allowed the farmer to update his livestock practices. On another farm, a milking parlor barn addition accomplished the same goal. These rebuilding efforts testify to the growing importance of dairying.



Barn with gambrel roof milking parlor addition, Newton Township, Lackawanna County, c. 1950-70. Site 069-NE-001.

Machine Sheds, 1940-1960

With the rising importance of machinery came more machine sheds. These often were newer style pole buildings and frequently had metal roofing and siding.



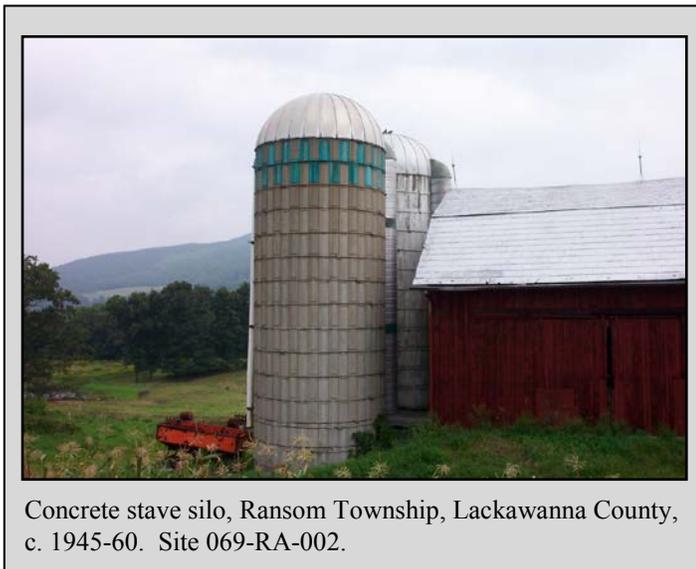
Machine shed, Newton Township, Lackawanna County, mid- to late 20th century. Site 069-NE-002.

Corn Cribs, 1940-1960

Corn was still not a very important crop, but probably ear corn reflected dairying needs. Several modern corn cribs were documented in the region.



Corn crib, Ransom Township, Lackawanna County, mid-20th century. Site 069-RA-002.



Concrete stave silo, Ransom Township, Lackawanna County, c. 1945-60. Site 069-RA-002.

Silos, 1940-1960

Silo types common during this period included the concrete-stave silo and concrete-panel silo.

Milk Houses, 1940-1960

New milk houses continued to be built during this period, most often of concrete block.

Landscape Features, 1940-1960

Strip Cropping and Contour Plowing, 1940-1960: Aerials from the 1960s and 1970s show some evidence for strip cropping and contour plowing in the region, but on the whole, field size and shape did not change very much.

Treelines, 1940-1960: Aerial photos clearly show that fields and pastures were demarcated by prominent treelines.

Large Woodlots, 1940-1960: Reforestation was a continuing process in the region.

Orchards, 1940-1960: Orcharding declined quite markedly during this period.

Vegetable / Truck Plot, 1940-1960: These would have been important features, but they are quite ephemeral and little survives.

Ponds, 1940-1960: This would be one new farm landscape feature of the period. Extension agents mentioned them occasionally, but they do not appear to have been very common. They were expensive, and in the Poconos particularly, there were other water sources.

Property Types and Registration Requirements – Criterion A, Pennsylvania

This statement outlines considerations for Pennsylvania as a whole.

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.⁵³

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.⁵⁴ 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.

Property Types and Registration Requirements —

Criterion A, Pocono Resort and Anthracite Coal Region Local Market-Oriented Agriculture, 1860-1960

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

To represent the period c. 1860 to 1915, “Diversified Vegetable, Fruit, Poultry, Dairy, and Hay Production for Local Markets,”

A **farmstead** should retain house and barn typical of the period as described above. In the Pocono counties, a farmhouse fitted out for tourists would enhance eligibility. A farmstead should also include at least one or two of the outbuildings and structures described in the narrative for this period, eg ice house, summer kitchen, root cellar, poultry house, pig sty, corn crib. Relict farmstead landscape features from this period are rare. Any survivals enhance eligibility. A **farm** should retain

the farmstead elements named above, plus significant acreage with remnant landscape features such as fields, treelines, boundaries, and woodlots. A **historic agricultural district** should include contiguous or clearly connected farmsteads that share visual, landscape, and architectural characteristics that date to and are typical of the period. Since individual properties which solely illustrate this early period are likely to be rare, districts with a concentration of such properties are also likely to be rare. It is very important to note that not only production patterns, but historic patterns of tenancy, labor, and culture should be clearly represented.

To represent the period 1915-1940, “Pocono Resort and Anthracite Coal Region Diversified Agriculture,”

A **farmstead** should retain house and barn as described above. These do not have to date from the period, since new houses and barns were not common then. In the Pocono counties, a farmhouse fitted out for tourists would enhance eligibility. A farmstead should also include at least two of the outbuildings and structures described in the narrative for this period, e.g., ice house, summer kitchen, root cellar, sash house, root cellar or potato cellar, poultry house (brooder, layer, and/or colony), fruit related building (cold storage, cider house, fruit loading), milk house, silo. Insofar as possible, the historic outbuildings should reflect the individual farm’s production history for the period. Relict farmstead landscape features from this period are rare. Any survivals enhance eligibility. A **farm** should retain the farmstead elements named above, plus significant acreage with remnant landscape features such as fields, treelines, boundaries, and woodlots. Documentation via historic aerials is now possible on the World Wide Web and should be attempted. A **historic agricultural district** should include contiguous or clearly connected farmsteads that share visual, landscape, and architectural characteristics that date to and are typical of the period. Documentation via historic aerials is now possible on the World Wide Web and should be attempted.

It is very important to note that not only production patterns, but historic patterns of tenancy, labor, and culture should be clearly represented.

To represent the period 1940-1960, “Specialization, Mechanization, and Decline,”

A **farmstead** should retain house and barn as described above. These do not have to date from the period, since new houses and barns were not common then, but there should be alterations typical of the period, such as milking parlors. A farmstead should also include at least two of the outbuildings and structures described in the narrative for this period, eg machine shed, corn crib, large scale poultry house, milk house, silo add period examples of these last two. Insofar as possible, the historic outbuildings should reflect the individual farm’s production history for the period. Relict farmstead landscape features from this period may survive. A **farm** should retain the farmstead elements named above, plus significant acreage with remnant landscape features such as fields, treelines, boundaries, and woodlots. Documentation via historic aerials is now possible on the World Wide Web and should be attempted. A **historic agricultural district** should include contiguous or clearly connected farmsteads that share visual, landscape, and architectural characteristics that date to and are typical of the period. Documentation via historic aerials is now possible on the World Wide Web and should be attempted. It is very important to note that not only production patterns, but historic patterns of tenancy, labor, and culture should be clearly represented.

B. Properties may possess a range of buildings and landscape features that illustrate change over time in the region’s agricultural history:

A farmstead, farm, or historic agricultural district can also be considered eligible if it possesses a range of buildings and landscape features that illustrate change over time in the region’s agricultural history. Most eligible properties will probably fit into this category, since it is unusual for a landscape to become “frozen” in one narrow chronological period. 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. Please note that the settlement era (to about 1830) has been treated in a separate document. Please refer to that document to determine the nature of resources from this period.

Rather than enumerate all the possibilities, some examples can be offered. For the Pocono and Anthracite Region, typical assemblages illustrating key agricultural changes would reflect a shift from one phase to another, such as from diversified vegetable and fruit production to an emphasis on fluid milk and poultry in the 20th century. In this instance, for a farmstead, a century house characteristic of the region; a barn with dairy adaptations; at least one silo; at least one poultry house; and small ice house would show change over time. For a farm, in addition to the farmstead elements named above, significant acreage that shows shifting patterns of land use, especially as regards orchard and vegetable production; boundaries, treelines, fences, and relict fields. For a Historic Agricultural District, the possibilities are numerous; it could include a number of farms that individually show change over time, or 19th-century farms together with 20th-century farms. These should be clearly linked by transportation corridors that helped to shape the changes being illustrated. In the Pocono and Anthracite Region, US Highways dating from the early 20th century, such as Route 209, would be important, as would the rail lines leading to New York City and the roads through the Wyoming Valley. It is very important to note that not only production patterns, but historic changes in patterns of tenancy, labor, and culture should be clearly represented for any property.

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

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.

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

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 posses high artistic values, or, as a rural historic district, that represent a significant and distinguishable entity whose components lack individual distinction”.⁵⁵

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 ...”.⁵⁶ 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.⁵⁷ 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 Revivalized 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.

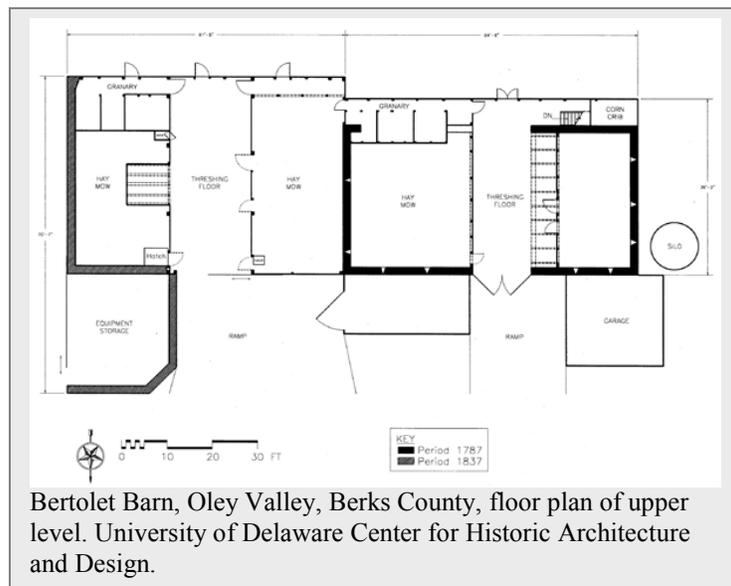
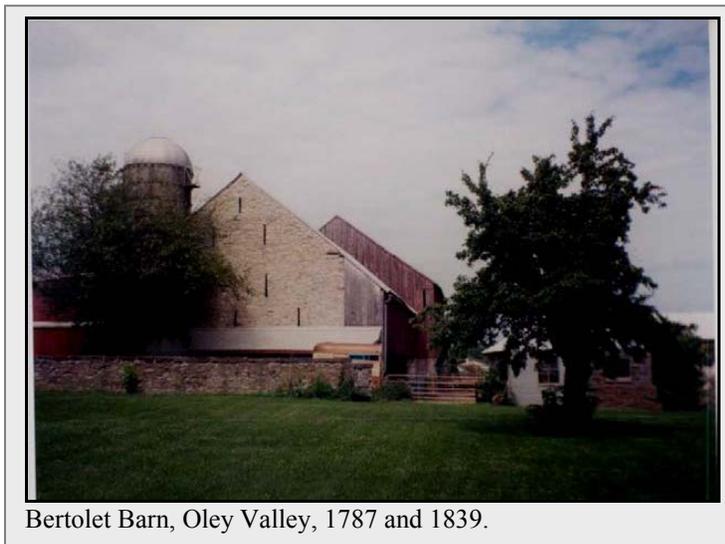


Hodge Barn, Centre County, struts under forebay.

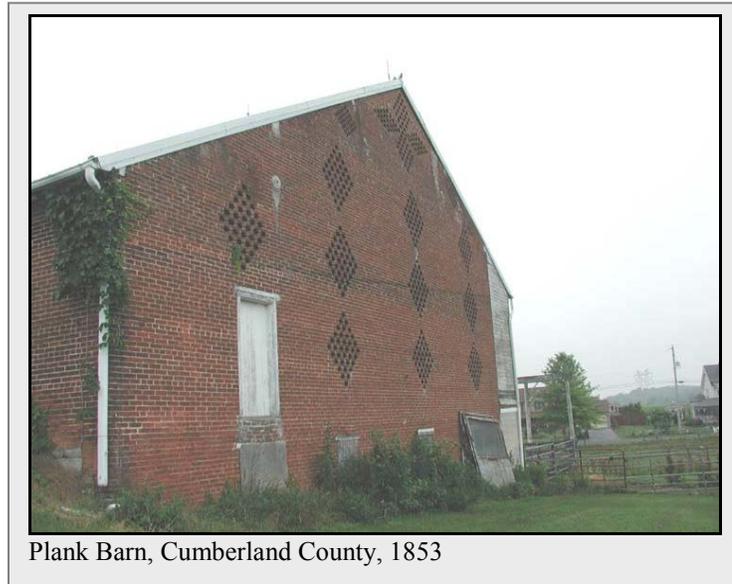


Hodge Barn, Centre County, struts under forebay.

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.



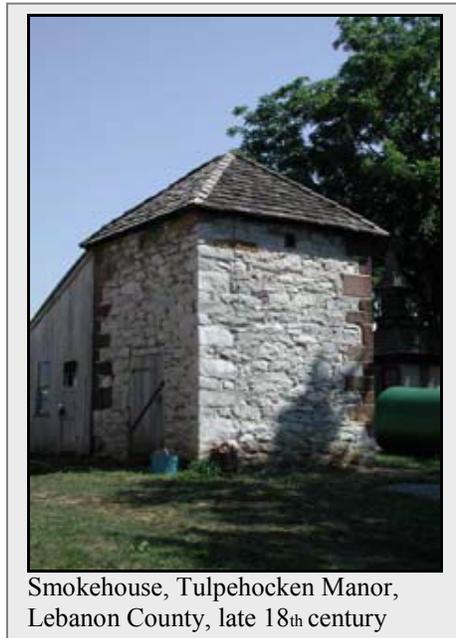
Example 3: the Plank Barn in Cumberland County. This brick-end barn was built in 1853. It is significant for its design, workmanship, and artistic merit. Its significant design features clearly include attention to simple proportions. Its workmanship is important in the significant masonry technique 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 18th 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 18th 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 20th 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

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.

Bibliography for Property Types and Registration Requirements, Criterion D, Archaeology

Bailey, Daniel N., David L. Weinberg, and John W. Lawrence

2004 From Log House to Brick Mansion, Continuity and Contradiction in Quaker Life and Thought: Data Recovery at the Hoopes House Site, 36CH0732. Report on file, Pennsylvania Historical and Museum Commission, Harrisburg, PA.

Beaudry, Mary C. 1986 "The Archaeology of Historical Land Use in Massachusetts." *Historical Archaeology* 20(2):38-46. 2001-2002 "Trying to Think Progressively about Nineteenth-Century Farms." *Northeast Historical Archaeology* 30-31:129-142.

Bowen, Joanne

1998 "To Market, To Market: Animal Husbandry in New England." *Historical Archaeology* 32(3):137-152.

Cabak, Melanie A., Mark D. Groover, and Mary M. Inkrot

1999 "Rural Modernization During the Recent Past: Farmstead Archaeology in the Aiken Plateau." *Historical Archaeology* 33(4):19-43.

Catts, Wade P.

2001-2002 "Research Questions for the Archaeology of Rural Places: Experiences from the Middle Atlantic." *Northeast Historical Archaeology* 30-31: 143-154.

Friedlander, Amy

1991 "House and Barn; The Wealth of Farms, 1795-1815." *Historical Archaeology* 25(2):15-29.

Garman, James C., Paul A. Russo, Stephen A. Morozowski, and Michael A. Volmar

1997 "'This Great Wild Tract': Henry David Thoreau, Native American, and the Archaeology of Estabrook Woods." *Historical Archaeology* 31(4):59-80.

Garrison, Ervan G.

1996 "Archaeogeophysical and Geochemical Studies at George Washington Carver National Monument, Diamond, Missouri." *Historical Archaeology* 30(2):22-40.

McGuire, Randall H. and Mark Walker

1999 "Class Confrontations in Archaeology." *Historical Archaeology* 33(1):159-183.

Miller, George L.

1980 "Classification and Economic Scaling of 19th Century Ceramics." *Historical Archaeology* 14:1-40.

Price, Cynthia R.

1985 "Patterns of Cultural Behavior and Intra-Site Distributions of Faunal Remains at the Widow Harris Site." *Historical Archaeology* 19(2):40-56.

Rotman, Deborah L. and Michael S. Nassaney

1997 "Class, Gender, and the Built Environment: Deriving Social Relations from Cultural Landscapes in Southwest Michigan." *Historical Archaeology* 31(2):42- 62.

Scharfenberger, Gerard P. and Richard F. Veit

2001-2002 "Rethinking the *Mengkom* Mixing Bowl: Salvage Archaeology at the Johannes Luyster House, a Dutch-American Farm." *Northeast Historical Archaeology* 30-31: 53-72.

Stewart-Abernathy, Leslie C., and Barbara L. Ruff 1989 "A Good Man in Israel: Zooarchaeology and Assimilation in Antebellum Washington, Arkansas." *Historical Archaeology* 23(2):96-112.

Stine, Linda F. 1990 "Social Inequality and Turn-of-the-Century Farmsteads; Issues of Class, Status, Ethnicity, and Race." *Historical Archaeology* 24(4):37-49.

Whittaker, William E.

1999 "Production of Animal Commodities at Plum Grove, Iowa City." *Historical Archaeology* 33(4):44-57.

Wurst, Lou Ann and Robert K. Fitts

1999 "Introduction: Why Confront Class?" *Historical Archaeology* 33(1):1-6.

Wurst, Lou Ann

1999 "Internalizing Class in Historical Archaeology." *Historical Archaeology* 33(1): 7-21.

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.

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."⁵⁸

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."⁵⁹

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”⁶⁰ 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.”⁶¹ 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.”⁶² 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.

Notes

1. Brent Yarnal, "Climate," in E. Willard Miller, ed., *A Geography of Pennsylvania* (University Park, PA, 1995), 53.
2. www.dcnr.state.pa.us/topogeo
3. The resort clientele were mainly white, Protestant, and middle class, though there were exceptions such as organizations that catered to union members (Unity House) and Jewish visitors (Camp Tamiment). See Lawrence Squeri, *Better in the Poconos* (University Park, PA, 2002).
4. D. G. Beers, *Atlas of Luzerne County, Pennsylvania*. Philadelphia, 1873.
5. Thomas D. Eckhart, *The History of Carbon County*, (Nevada, Iowa : Co-published by Thomas D. Eckhart and The Carbon History Project, 1992- (Lehighton, Pa.), (TN Printing), Volume IV, 318, 309.
6. E. E. Taylor, letter, *National Stockman and Farmer*, January 23, 1896.
7. *National Stockman and Farmer*, December 27, 1900, 1000.
8. Liberty Hyde Bailey, ed. *Cyclopedia of American Agriculture* Volume I. (London, 1907-1909), 504.
9. E. G. Montgomery, *Productive Farm Crops* (Philadelphia, 1916), 192-194.
10. J. B. Stephens, *History and Directory of Newton and Ransom Townships*, (Montrose, Pa, 1912), 132, 210.
11. *Illustrated Catalogue*, Prairie State Incubator Co., Homer City, PA. 1895. Historical Society of Western Pennsylvania Library and Archives, Pittsburgh, PA, np.
12. *National Stockman and Farmer*, December 27, 1900, 1000.
13. *National Stockman and Farmer*, June 23, 1898.
14. Pennsylvania Department of Agriculture Annual Report for 1895, Part II, Division of Forestry, 65.
15. <http://www.poconohistory.com/MonroeCounty.htm>, accessed May 22, 2009. See also *Monroe County: Historic Legacy: A Summary of Historic Sites and Structures in Monroe County, Pennsylvania*. Monroe County Planning Commission, 1980, 26.
16. Pennsylvania Department of Agriculture *Annual Report* for 1896, Part II, Division of Forestry, 40.
17. Documentation with plentiful photographs appears in Eckhart, *The History of Carbon County*.
18. The Women of Monroe County Committee, *Women Who Made History in Monroe County*. Monroe County, 1995, 301.
19. Eckhart, *The History of Carbon County*, shows dozens of historic photos with farmhouse views. In Volume VI, 67: the Stemler house, Lower Towamensing Township, a frame house with clapboard siding, gable roof, two bays over three, and two bays deep. In Volume IV, 72: the Eckhart house, a four over four house with 6/6 sash windows probably dating to the mid-19th century.
20. Dona Brown, *Inventing New England, Regional Tourism in the 19th Century* (Washington, D. C., 1995), 154.
21. Thomas D. Eckhart, *The History of Carbon County*, (Nevada, Iowa : Co-published by Thomas D. Eckhart and The Carbon History Project, 1992- (Lehighton, Pa.), (TN Printing), Volume I, 194, 223, 238, all show Pennsylvania barns in Carbon County.
22. 1880 Manuscript Agriculture Census, Smithfield Township, Monroe County, page 6, line 3. William Walter was the owner at that time.
23. Thomas D. Eckhart, *The History of Carbon County*, (Nevada, Iowa : Co-published by Thomas D. Eckhart and The Carbon History Project, 1992- (Lehighton, Pa.), (TN Printing), Volume IV, 159.

24. Period photos appear in Eckhart, *The History of Carbon County*: Volume I, 236, Balliet Homestead, Mahoning Township; Volume I, 238, Kuhns Homestead, Mahoning Township; Volume IV, 175, Lewis Wehr Homestead, East Penn Township. There are many other photos showing summer kitchens in this multivolume work.
25. The Walter-Kautz Farm, HABS, Monroe County, shows a fine example.
26. These two photographs were on a website, LowerLuzerneCounty.com, accessed February 16, 2004. As of March 6, 2009, this site is no longer active.
27. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1919, Narrative, 5-6.
28. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1924, Narrative, 21. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1922, Narrative, 10.
29. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1935, Narrative, 17; 1936, 20; 1939, 27-28.
30. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1919, Narrative, 7.
31. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1921, Narrative, 12.
32. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1924, Narrative, 11. See also page 21.
33. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1925, Narrative, 18.
34. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1931, Narrative, 26; Robert Bain Donaldson, "The Marketing of Fruits and Vegetables in the Wilkes-Barre Area," Penn State University thesis, MS in Agricultural Economics, 1935.
35. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1927, Narrative, 10.
36. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1923, Narrative, 17.
37. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1923, Narrative, 34; 1924, Narrative, 12.
38. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1925, Narrative, 17.
39. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1920, Narrative, not paginated.
40. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1917, Narrative, no page number.
41. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1925, Narrative, 24, 27. See also 1928, Narrative, 19, 22.
42. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1918 and 1919, photos.
43. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1940, Narrative, 32.
44. Penn State Agricultural Extension Archives, Monroe County, Home Economics Agent Report for 1927, Narrative, 3; Penn State Agricultural Extension Archives, Carbon County, Home Economics Agent Report for 1933, Narrative, 5.
45. C. S. Simmons, *Soil Survey of Wayne County Pennsylvania*. USDA Bureau of Chemistry and Soils, 1938, 10.
46. For more information on poultry housing in general, see the Pennsylvania Agricultural History Project Field Guide, accessible through the PHMC website.

47. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1930, Narrative, 9; Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1925, Narrative, 6-7.
48. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1940, Narrative, 27.
49. Penn State Agricultural Extension Archives, Monroe County, Agent Report for 1922 and 1925.
50. Gerald Pocius, "Lithuanian Landscapes in America: Houses, yards, and Gardens in Scranton, Pennsylvania." *New York Folklife* 22 (1996): 49-86.
51. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1946, Narrative, 2.
52. Penn State Agricultural Extension Archives, Carbon County, Agent Report for 1944, Narrative, 5.
53. 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.
54. In some places, only some farmers owned machinery, and it was shared around, so some farms would have lots of machinery buildings and others would have few. This was not true in the regions researched for this context.
55. NR Bulletin *How to Apply the National Register Criteria for Evaluation*, p 17.
56. *Historic Farming Resources of Lancaster County*, MPDF, 1994.
57. In addition see the discussion of the regional architecture of farm buildings in the MPDFs *Farms in Berks County* (1992) and *Historic Farming Resources of Lancaster County* (1994).
58. "Corridor Improvement Study, Reconnaissance Survey and Historic Contexts Report. SR 0030, Section S01, East Lampeter, Leacock, Strasburg, Paradise, Salisbury, and Sadsbury Townships, Lancaster County, Pennsylvania." 2 Volumes. Prepared by A.D. Marble Company; 2004, Volume I, page 175. The SR 30 study involved an exhaustive survey of all resources in the multi-township area of Lancaster County and preparation of contexts for agriculture, industry, and several other themes. For agriculture the study identified character-defining features for both English and Plain Sect farms.
59. "Tilling the Earth: Georgia's Historic Agricultural Heritage, A Context." Prepared for the Georgia Department of Natural Resources, Historic Preservation Division, by Denise P. Messick, J. W. Joseph, and Natalie P. Adams, New South Associates, Inc. 2001. http://hpd.dnr.state.ga.us/assets/documents/tilling_the_earth.pdf
60. Ibid.
61. Ibid.
62. Ibid.

Bibliography

Note: a more extensive general bibliography is available with the other Pennsylvania Agricultural History Project narratives online.

Published Materials

Bailey, Liberty Hyde, ed. *Cyclopedia of American Agriculture* Volume I. London, 1907-1909.

Beers, D. G. *Atlas of Luzerne County, Pennsylvania*. Philadelphia, 1873.

Brown, Dona. *Inventing New England: Regional Tourism in the 19th Century*. Washington, D. C., 1995.

Eckhart, Thomas D. *The History of Carbon County*. Six volumes. Nevada, Iowa, 1992.

Mathews, Alfred. *History of Wayne, Pike and Monroe Counties, Pennsylvania*. Philadelphia: R. T. Peck & Co., 1886.

Miller, E. Willard, ed. *A Geography of Pennsylvania*. University Park, PA, 1995.

Monroe County: *Historic Legacy: A Summary of Historic Sites and Structures in Monroe County, Pennsylvania*. Stroudsburg, PA, 1980.

Montgomery, E. G. *Productive Farm Crops*. Philadelphia, 1916.

Murphy, Raymond, and Marion Murphy. *Pennsylvania Landscapes, a Geography of the Commonwealth*. Second edition. State College, PA, 1952.

National Stockman and Farmer. Agricultural periodical published in Pittsburgh, PA. Volumes consulted were from 1884-1921, the years for which volumes were available in the Penn State University Library system.

Pennsylvania Department of Agriculture *Annual Report for 1895 and 1896*, Part II, Division of Forestry.

Pocius, Gerald. "Lithuanian Landscapes in America: Houses, Yards, and Gardens in Scranton, Pennsylvania." *New York Folklife* 22 (1996): 49-86.

Rauchenstein, Emil, and F. P. Weaver. "Types of Farming in Pennsylvania," *Pennsylvania State College Agricultural Experiment Station Bulletin* # 305, April 1934.

Simmons, C. S. *Soil Survey of Wayne County Pennsylvania*. USDA Bureau of Chemistry and Soils. Washington, D. C., 1938.

Squeri, Lawrence. *Better in the Poconos*. University Park, PA, 2002.

Stephens, J. B. *History and Directory of Newton and Ransom Townships*. Montrose, Pa, 1912.

The Women of Monroe County Committee. *Women Who Made History in Monroe County*. Monroe County, 1995.

Archival and Manuscript Materials

Donaldson, Robert Bain. "The Marketing of Fruits and Vegetables in the Wilkes-Barre Area," Penn State University thesis, MS in Agricultural Economics, 1935.

Edwards, Austin Vardell. "Agricultural Land Use Changes in Pennsylvania by Minor Civil Divisions, 1930-1940." MS Thesis, Agricultural Economics and Rural Sociology, Pennsylvania State College, 1953.

Illustrated Catalogue, Prairie State Incubator Co., Homer City, PA. 1895. Historical Society of Western Pennsylvania Library and Archives, Pittsburgh, PA, np.

Penn State Agricultural Extension Archives. Special Collections, Penn State University Libraries.

Pennsylvania Triennial Manuscript Census of Agriculture, 1927. Compiled down to the township level.

U.S. Manuscript Census of Agriculture for 1850 and 1880, compiled to the township level. For 1850, 100% of farms were covered; for 1880, a 10% sample was covered.

U.S. Census of Agriculture, 1950, published data.

Digital Resources

Built in America. Historic American Buildings Survey.
http://memory.loc.gov/ammem/collections/habs_haer/.

Greene-Dreher Historical Society Photo Gallery. <http://www.greenehs.org/photo.html>.

LowerLuzerneCounty.com, accessed February 16, 2004. As of March 6, 2009, this site is no longer active.

Penn Pilot Historic Aerial Photos of Pennsylvania: <http://www.pennpilot.psu.edu/>.

Pennsylvania Department of Conservation and Natural Resources, map:
www.dcnr.state.pa.us/topogeo.

Pocono History. Com: <http://www.poconohistory.com/MonroeCounty.htm>.