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

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

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

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

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

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North and West Branch Susquehanna Diversified Agriculture

Location

This area encompasses agricultural places that a) are roughly centered on the confluence of the Susquehanna's North and West Branches, and areas that border the river or its nearby tributaries, b) are characterized by glaciated terrain, mostly within the Susquehanna Lowlands Section of the ridge-and-valley physiographic province, c) generally possess ultisol soils underlain by sandstone or shale (i.e. this excludes the limestone valleys), d) and have historically been shaped by transportation corridors along the rivers. This definition excludes anthracite coal and mountain townships.

In Northumberland County, therefore, this region would include most townships *except* the coal areas and mountain areas of Little Mahanoy, Zerbe, West and East Cameron, Shamokin, and Kulpmont. In Montour County, it includes townships of Anthony, Derry, and Liberty. (Limestone Township, as its name suggests, sits on a small area of limestone soils and therefore should be included in the Central Limestone Valleys area.) It encompasses most of Columbia County, which is bisected by the North Branch, *except* for the mining and hill townships such as Beaver, Main, Conyngham, Montour, and parts of Catawissa. Jackson, Sugarloaf, Pine, and Fairmount townships in the county's north are mostly mountainous. In Snyder County, the border areas in townships that line the river's west bank are included, namely Chapman, Union, Penn, and Monroe. In Lycoming, townships bordering the North Branch, including: Jersey Shore, Nippenose, Susquehanna, Lycoming, Anthony, Old Lycoming, Woodward, Piatt, Porter, Mifflin, Watson, Bastress, Limestone, Armstrong, Clinton, Jordan, Wolf, Penn, Fairfield, Upper Fairfield, Loyalsock, Mill Creek, Shrewsbury, Muncy, Muncy Creek, Fairfield, Franklin, Jordan, and Clinton.

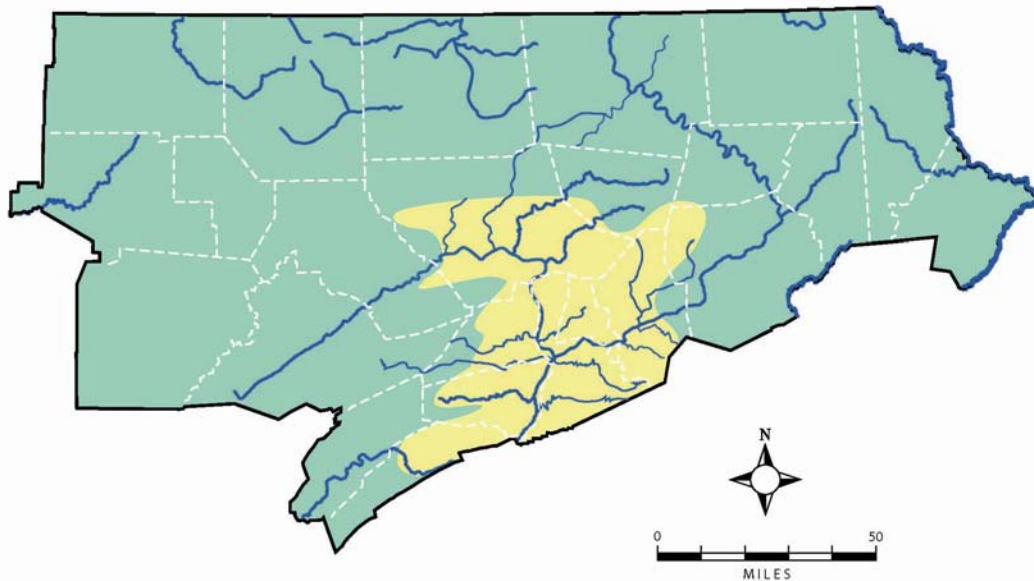
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Historic Rural Pennsylvania
NORTH and WEST BRANCH DIVERSIFIED AGRICULTURE



Map. The North and West Branch Diversified Agricultural region is in yellow: the North and West Branches of the Susquehanna (and tributaries) are in blue. Pennsylvania Bureau for Historic Preservation.

Climate, Soils, and Topography

This area averages about 50 degrees Fahrenheit mean annual temperature, with 40 inches of precipitation, and a high number of cloudy days. The average number of frost-free days is about 165 days. Soils in this region are generally ultisols in the DeKalb series, of variable quality. This region is part of the Ridge and Valley province; it is differentiated from the Central Limestone Valley region in that it lies within the glaciated area of the state, which means that the surface was scoured and so soils are more variable and generally lower in quality than the limestone areas. Topographically, while the region

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does have the characteristic ridges and valleys, it also features a patchwork of low-lying, smaller hills. Agriculture has historically taken place in the interstices between these hills and the ridges, and along the Susquehanna River Valley itself, whose North and West Branches run through the region.

Historic Farming Systems

In the North and West Branch area, the agricultural and landscape history falls into four periods. Beginning about 1790, effective settlement took place, and until about 1840, agricultural production reached two disparate destinations: staples went to family and neighbors on the one hand, and valuable, non-bulky goods to long-distance markets on the other. At this point, discrete regions within the twenty-four county area were not yet clearly formed, and so the entire study area is treated as a whole. See the first section of this document, "Early Agriculture in the Settlement Period," for a treatment of this period.

The North and West Branch Historic Agricultural Region emerged as a distinct region around 1840, and thereafter its agricultural, cultural, and landscape development fell into three periods. From about 1840 to 1860, transport development made it easier to export bulky goods, and social trends such as temperance prompted a shift away from growing grain for whiskey, and towards items such as corn, wheat, pork, and butter. Relative to other parts of the state, farming was more mechanized in this period. From 1860 to about 1940, the region's agriculture was shaped largely by population growth in the nearby industrial regions. Farming households developed a diversified mix oriented to these local markets. It featured corn, hogs, poultry, potatoes, buckwheat, and other products, often within a pronounced Pennsylvania German cultural context. As before, farms were relatively highly mechanized. From 1940 to 1960, the chief changes affecting agriculture were technological: the switch to combustion power from horses led to a re-structuring of crop patterns (since horse feed was no longer needed), and electrification eliminated the need for ice houses, spring houses, and even summer kitchens. Also, economic and cultural consolidation at the national and global levels homogenized rural society and with it the rural landscape.

Diversified Production on Highly Mechanized Farms, about 1840–1860

The key development in this period was that the region became more effectively connected to its distant markets by the state's emerging canal and rail system; the Main Line Canal reached into the region's heart by 1830, connecting Duncannon to

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Northumberland. The area was well laced by major railroads by 1860.¹ At the same time, the iron industry and related manufacturing emerged in the region, particularly in Union County, Danville, and Milton. While these industries did not yet employ huge numbers, they did create modest local markets and they made it possible for farms to mechanize more than in other parts of the state. Hence the agriculture that emerged in this period features a highly mechanized, diversified production, as before mainly for local exchange and distant markets, but with some changes to the product mix.

Products, c. 1840–1860

The product mix changed only subtly from the settlement period. Probably the biggest change was that whiskey was no longer important, both because transport innovations made it less attractive, and because the national temperance movement resulted in a decline in demand. Therefore, wheat went to other destinations and rye acreage declined. Otherwise, the pattern established after settlement persisted. Agriculture was highly diversified here, characterized by crops of wheat, corn, hay, and oats, a small surplus of butter, small numbers of milch cows, sheep, and beef animals, and higher than average (though still not markedly so) numbers of swine. Production continued to go to multiple uses: on-farm consumption by family and livestock; barter exchange; and cash exchange for both nearby and distant markets.

¹ *Historic Preservation Plan of Union County, Pennsylvania* (New York: Willis Monie Books, 1978) establishes that Lewisburg was linked by canal with Milton and the PA mainline by 1833, and that by the 1880s it was linked by rail to the east and west.

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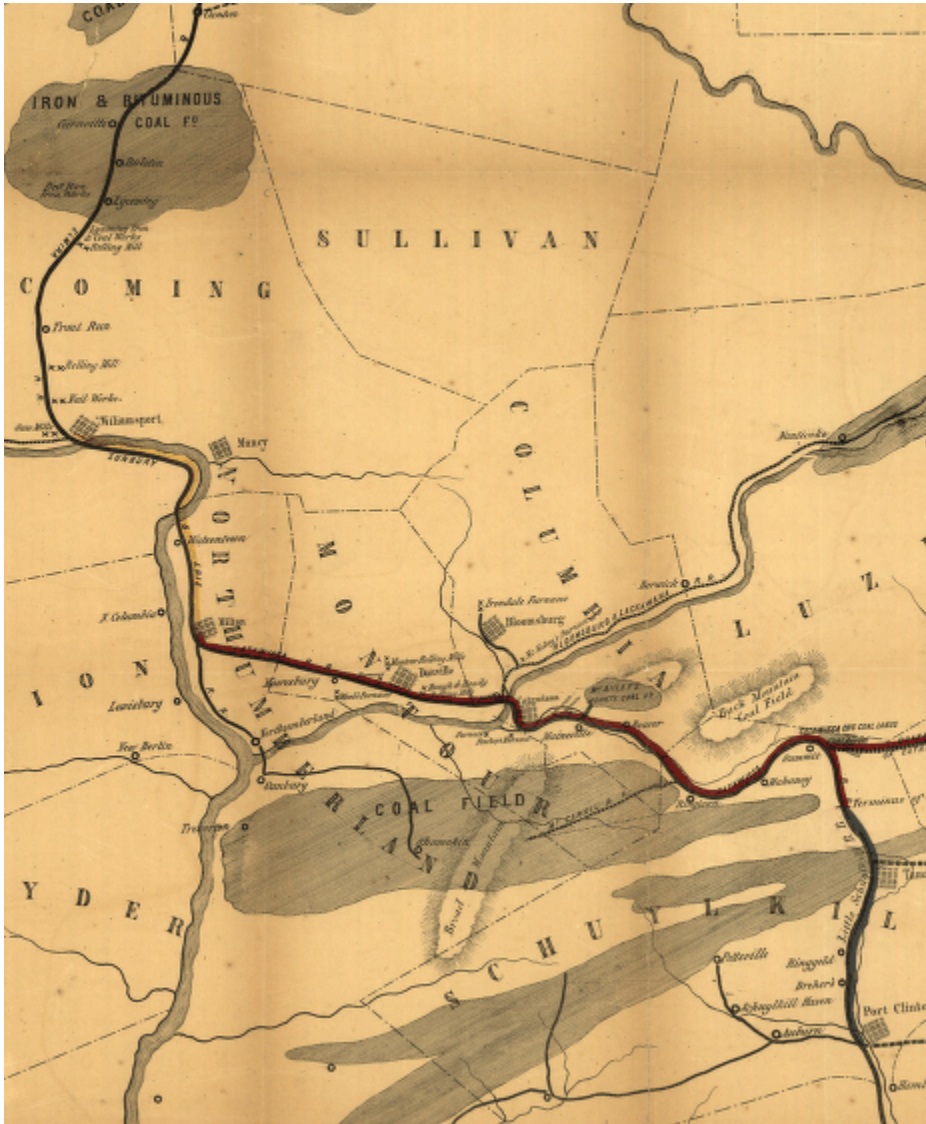
Barrington's New Railroad Map (1860) section showing rail stops in the heart of the North/west Branch region. Library of Congress, American Memory web site, digital ID g3821p rr002950
<http://hdl.loc.gov/loc.gmd/g3821p.rr002950>.

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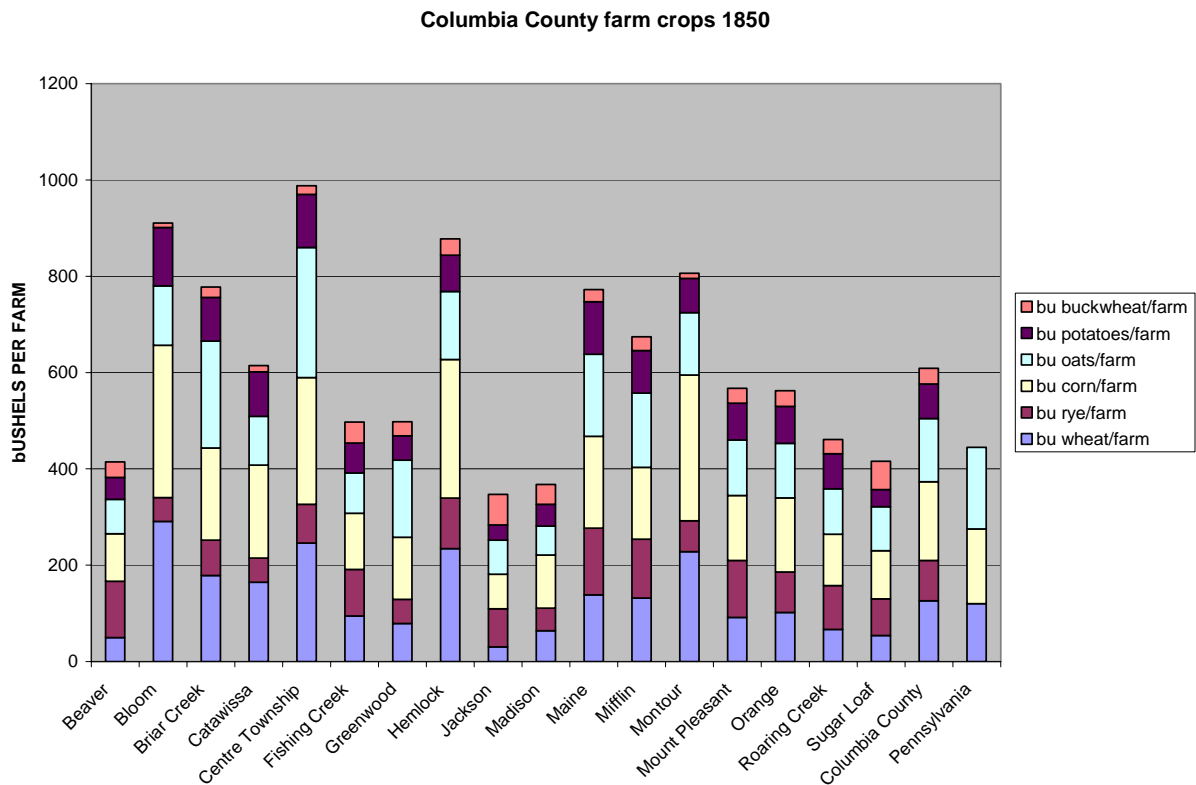
Catawissa and Williamsport Rail Road, 1856. Library of Congress. Digital ID g3821p rr003610 <http://hdl.loc.gov/loc/md/g3821p.rr003610>

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Labor and Land Tenure, about 1840–1860

The most significant development of this period is the marked mechanization. By this point, most townships included in the region showed a much higher than average (for Pennsylvania) level in the value of farm implements. This is probably accounted for by the presence of nearby ironworks. Ancillary industries also developed because of the ironworks; thus, for example, there was a farm machinery factory in Hartley Township, Union County, in the 1830s, and the Mifflinburg buggy works got started in the 19th century as well.² Most work was still done with human power, but it was aided by a variety of machines, both stationary and horse-drawn. Thus labor patterns were qualitatively different than in areas (such as the Northern Tier) where mechanization had not advanced as far.

² *Technical Report 2*, Union-Snyder Joint Planning Commission, 1973, 8.

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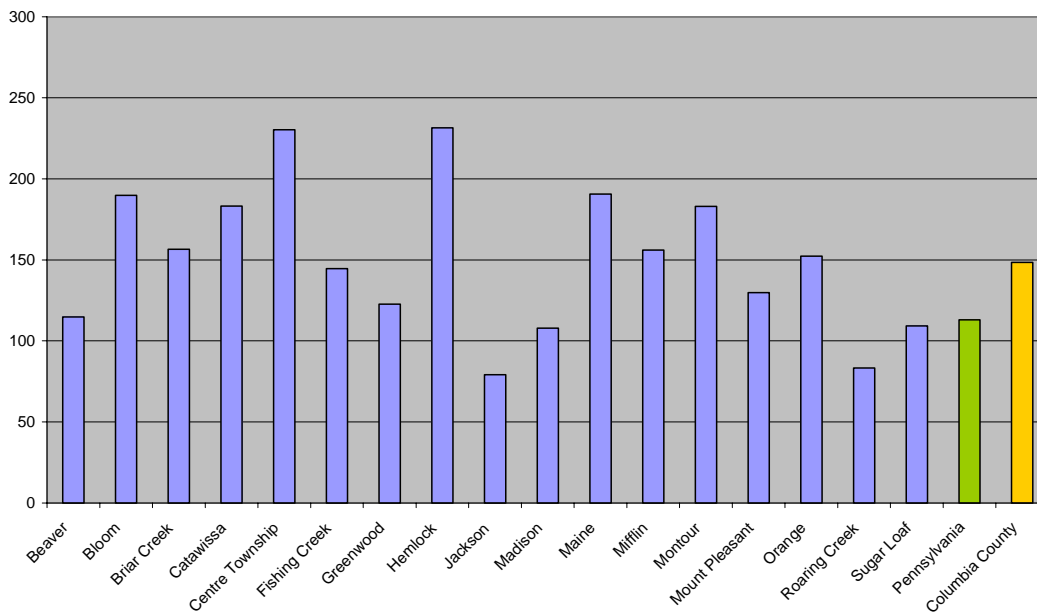
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Though many farm tasks were mechanized, family and neighborhood people still supplied most farm labor. As before, the gender division of labor was clear, yet flexible. Neighbors and kin accomplished many tasks collectively. And, families still were engaged in a complex web of exchanges that included labor, services, cash, barter, and the like.

Columbia County implements per farm 1850. Average county value, about \$150; state average, \$113



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Buildings and landscapes, about 1840–1860

Houses, about 1840–1860

This was the classic era of the “four-over-four.” Here the term “four-over-four” is being used to denote an exterior façade with symmetrically arranged openings, literally four over four.³ Some fine examples are found in the region.



109-MI-001-11. House, looking N-NE. Snyder County. This four-over-four has two doors. Its six-over-six sash windows suggest a mid-19th century date.

³ Note that different scholars mean different things by the term “four-over-four.” Richard Pillsbury, in “The Pennsylvania Culture Area Reappraised” (in *North American Culture*, 1987: 37–54), differentiates between what he calls the “Continental” four-over-four, which is a four-bay house supposedly derived from the “Continental” three-room house, and the “Pennsylvanian four-over-four,” which is a five bay-house with central door and central hall, and four rooms on each floor. Barry Rauhauser, on the other hand, in “The Development of the Pennsylvania Farmhouse Type in Manchester Township, York County, Pennsylvania,” (M.A. Thesis, University of Delaware, 2002), uses the term “four-over-four” to refer to the number of exterior bays. Henry Glassie, in “Eighteenth-Century Cultural Process in Delaware Valley Folk Building” (in *Winterthur Portfolio*, VII, Charlottesville: University Press of Virginia for the Henry Francis du Pont Winterthur Museum, 1972: 29–57), discusses the appearance of the “Pennsylvania farmhouse.”

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109-UN-003-08. House, summer kitchen, looking SW. Union Township, Snyder County. This substantial brick four-over-four house has two-over-two windows, suggesting a date after about 1850. Its full basement level and summer kitchen accommodated the ever more complex variety of household and agricultural production. The double-decker porch was a popular feature that was both ornamental and functional.

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093-LI-004-04. House, looking N-NW (Montour County). Another variation on the four-over-four.



Columbia County, GR-005. A four-over-four with (in effect) not just two but four doors, if you consider the French doors flanking the two central doors. The owner dates it to the 1850s, which is probably close though the trim and 2/2 windows could place it a bit later. This house looks like it is two rooms deep but in fact the main section is only one room deep.

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097-LM-002-07. This five-bay, center door house has similar architectural fundamentals: six-over-six sash windows, end chimneys, exposed basement level, and a double-decker porch. The center gable is an added ornamental feature. The door also has side transoms. In the rear is a one-story summer kitchen extension, probably added later. Lower Mahanoy Township, Northumberland County.

Another form had five exterior bays. Usually, this type would have a center door, but like the four-over-four, it would be two rooms deep.

The typical North/West Branch farmhouses of this period share basic architectural characteristics, whether they have three, four, or five (or more) bays. They usually have two windows in the gable ends, even if they are not two rooms deep. They have a square-ish footprint. Five-bay houses usually had a central doorway, while three-bay houses still were normally two rooms deep and commonly had either a central door or a side door. Four-bay houses might have a single off-center door, or two, central doors.

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Scholars such as Henry Glassie and Joseph Glass have labeled the four-bay houses the “Pennsylvania farmhouse.” Regardless of how many bays they had, these houses had interior gable end chimneys, but often no fireplaces, having been erected after stoves became the main heating technology. Many were banked, giving a basement work and storage space, and a *vorhof*, or work yard. Materials and trim varied; the latter usually in a muted expression of whatever style trend prevailed at the time. Sometimes a flat datestone over the doorway or in the gable end bore the names of the husband and wife. Interior trim followed current styles, but we might find echoes of the past in slightly heavier-than-usual moulding or in traces of a vivid paint color. Interior plans varied, just as their colonial era predecessors had. Some had the classic “Georgian” central hall plan, but many did not. Henry Glassie has shown that some retained a three-room configuration behind the newly symmetrical façade, and examples elsewhere show how a three-room “Continental” Germanic-derived plan behind a three-bay, side-door exterior.⁴ Some had a four-room plan that was related to earlier versions found in the eastern hearth area.

Scholars disagree on whether to attach much ethnic significance to these 19th century forms. Henry Glassie suggested that in the so-called “Pennsylvania farmhouse” type, the Pennsylvania Germans retained familiar spaces behind “anglicized” facades. There is evidence that some people persisted with Pennsylvania German cultural practices. The *stube* is one of the most important. The hearth disappeared and the chimneys were displaced, and the three-room configuration may have been discarded; but the *stube* continued, even if in attenuated form: a “warm room,” “stove room,” or sometimes just “the room.”⁵ Indeed, fieldworkers in Snyder County heard from a local resident that his Pennsylvania German grandparents had built a three-room plan, two-door house in 1927, and they had a “warm room.”

More recently, however, Barry Rauhauser examined a number of early four-bay Pennsylvania farmhouses in one York County township and found they had a wide variety of plan types behind the uniform exteriors, leading him to argue that the

⁴ 124 North Church Street in Boalsburg has a three-room plan behind a three-bay, side-door exterior. The long room extends across the front three bays; a staircase originally occupied the space where the 18th-century hearth would sit; and the *stube* and *kammer* equivalents were in the second rank of rooms, behind the staircase and opposite the entry respectively.

⁵ “Warm room” and “stove room” come from Boalsburg buildings of c. 1840 to 1900. See Sally McMurry, *From Sugar Camp to Star Barn* (University Park: Pennsylvania State University Press, 2001), 16, 138-9.

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Pennsylvania Farmhouse was “culturally ambiguous,” not associated with any particular ethnicity. Yet Rauhauser also maintained that the Pennsylvania Farmhouse contributed to a distinct regional identity through which Pennsylvania Germans “create[d] unity among their increasingly stratified and assimilated culture.” This analysis closely parallels Steven Nolt’s concept of “ethnicization as Americanization,” in which, Nolt argues, Pennsylvania Germans used their ethnic identity as a means toward Americanization (for example by invoking freedom of religion when they opposed the public school law.)⁶

The houses in the North and West Branch, especially in the heavily Pennsylvania German regions, do seem to create a landscape that speaks simultaneously of ethnicity and Pennsylvania localism. This pattern is especially strong if viewed in a wider context. For example, within the region, the local enclave of extant Quaker architecture in the Catawissa area, with its stonemasonry and one-room-deep buildings, contrasts with the Germanic areas further south. Within the state, the Pennsylvania German areas contrast with Northern Tier domestic architecture of the period, which characteristically had different proportions, fenestration, siting, and ornament.

⁶ Steven Nolt, *Foreigners in Their Own Land: The Pennsylvania Germans in the Early Republic* (University Park: Pennsylvania State University Press, 2002), 3.

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Barns, c1840–1860



Pennsylvania Barn in Northumberland County. This barn, LM-003, (Lower Mahanoy Township), south, forebay side (left) and north, bank side (right) respectively, has been much altered, but originally had the classic diagnostic features: banked on the long side with a projecting forebay. Jerry Clouse notes that the eaves framing is of a type commonly found in northern Dauphin County (conversation with Author.).

The barns dating from this period in the region most often were the classic banked Pennsylvania Barn with extended forebay. Its diagnostic features include: banked (or ramped) construction, eaves side in the bank; and the projecting overhang, also called a “forebay.” This forebay could hang free; it could be supported on one or both gable ends; or sometimes it could be supported on posts. Early “Sweitzer” barns have asymmetrical gable ends, because the interior framing did not incorporate the forebay; later barns have symmetrical gable ends, because framing was adjusted to incorporate the forebay. Most Pennsylvania Barns have post and beam interior framing. Some early examples of post and beam framing show Germanic traits such as the tendency to use multiple horizontal cross beams. Later systems were simpler. The Pennsylvania Barn is associated most with Pennsylvania Germans, although people from many different social groups eventually adopted it.

The Pennsylvania Barn represents an efficient adaptation to new conditions throughout eastern Pennsylvania in the early 19th century. The Pennsylvania Barn reflected new grain and livestock systems in that it housed livestock on the lower level and accommodated hay storage, grain storage, and threshing on the upper level. Also, the

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19th century saw the final transition to free labor, so efficiency became more important; the vertical arrangement of the Pennsylvania Barn helped work flow through gravity. Mechanization is reflected in the Pennsylvania Barn's accommodation for draft horses, and also in integral machinery bays. Typically a Pennsylvania Barn would have a granary, located in the forebay or sometimes on the bankside. Again, this centralization of functions contributed to efficiency. Sometimes a Pennsylvania Barn would have integral corncribs, or even cisterns.



Pennsylvania Barn, Northumberland County, LM005. (left) This barn has one corner intact of log construction, and a datestone of 1845. The log end probably predates 1845.



097-LM-006-01 91. Small cut road enhanced. Pennsylvania Barn, Lower Mahanoy Township, Northumberland County.

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037-LO-001-03 N. Barn, looking SW, Locust Township, Columbia County. Note the machinery bay.



109-CH-001-09. Barn, looking E-NE, Snyder County

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109-MI-001-03. Barn (note vent slits), Snyder County.

Outbuildings

George Dunkelberger, in his 1948 *Story of Snyder County*, listed the bake oven, dry house, smoke house, ground cellar, and cabbage kutsch as the “five essentials in the backyard of every rural home sixty and more years ago.”⁷ Survey work found no bake ovens, dry houses, or cabbage kutsches; but spring houses, smoke houses, one ice house, and “ground cellars,” or root cellars, were documented.

⁷ George Franklin Dunkelberger, *The Story of Snyder County from its Earliest Days to the Present Day* (Selinsgrove, PA: Snyder County Historical Society, 1948), 292.

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Spring Houses, about 1840 to 1860

Spring houses were important productive spaces in the pre-refrigeration era. See “Early Agriculture...” for a description of characteristics and functions. Up until the Civil War period, buttermaking was a modestly important enterprise in this region, hovering right at or slightly above statewide averages. The stone springhouse depicted below may date from this period.



093-LI-003-07. Montour County.

Smoke House, 1840–1860



Smokehouses were mentioned in 18th century sources, but it is hard to date extant ones with certainty and the likelihood is that most postdate the settlement period. A smoke house is a small, usually one-story structure with a square-ish or rectangular footprint. Materials can vary; frame, log, brick, stone, or combinations were all used. A gabled roof is most common, but some have pyramidal roofs. There is a door in the gable side, but no chimney, and no windows, as the purpose of a

LM002. Northumberland County,
smoke house on right of photo.

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smokehouse was to contain smoke that would permeate meats hanging within, thus preserving them. A smokehouse might have a small door for ash removal at the base of the structure. The interior is charred, and sometimes it has hooks still in place where the meats hung. Sometimes smoke houses had strong iron bars on their doors to deter would-be thieves. A smokehouse was commonly sited within the house's orbit -- often near the kitchen or summer kitchen, or in a rear yard.

Ice House, 1840–1860

Dunkelberger mentioned that some families had ice houses and sometimes several families would have one in common; "filling the ice-house was a community project."⁸ An ice house is an insulated structure that stored ice in the days before electrical refrigeration. Ice houses were generally small, constructed of wood or sometimes stone, and with a square or rectangular footprint. Usually they were gable roofed. Sometimes they had two rooms, one for the ice itself and another for cool storage. Ice houses possess one or more of the following features: blank walls; ventilators, either on the roof-ridge in clerestory or cupola style, or simpler louvers in the gable peak (to facilitate air circulation and minimize interior temperatures); gable-end or eaves-side doors; and thick walls – if constructed of wood, they would be filled with insulating material, often sawdust. Ice houses are sometimes sited within the orbit of the farmhouse, though the location of the ice source (a pond or sometimes a creek) may also influence siting.

⁸ Dunkelberger, 295.

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Several ice houses were surveyed for this project; dating them is difficult, however.



109-CH-001-03. Ice house, Chapman Township, Snyder County. The ice house is in the rear of the building.

Landscape Features, 1840–1860

By this point, property boundaries, roadways, and treelines may in some cases have assumed their modern forms and locations. The same may be true for woodlots and field systems, though these ebbed and flowed over time. Fencing would continue to be mainly worm fences, and none from this period would survive. Orchard trees established during this period would not survive to the present, though orchard sites may in rare cases persist.

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Diversified Production for Local Markets, 1860–1940

The key development affecting agriculture in the region during this period was the rise of large nearby markets. Extractive and industrial cities grew quickly, creating dependable markets for foodstuffs and animal feed. At the same time, local farm people were adjusting to Western competition (especially from cheap grain and flour), and they reduced their dairying as Pennsylvania's Northern Tier came to dominate that industry. Distant markets became much less important. Though this period covers a long time span, basic continuities justify the periodization. The *numbers* of animals on farms – especially swine and poultry – grew, but the basic pattern established in the late 19th century persisted into the twentieth century, through the Depression. The Depression years saw a small surge back to the farm, and an increase in substitution of labor and time for cash expenditure, especially on the part of women, thus temporarily halting the trend in the opposite direction.

By the Civil War era, the ironmaking and coal mining industries were rapidly expanding. For example, Northumberland County went from 13 collieries, producing about 200,000 tons in the late 1850s, to more than thirty collieries and well over a million tons by the mid 1870s, with steady increases into the late 1880s.⁹ Towns such as Danville, Bloomsburg, Berwick, and Milton became important manufacturing centers for the iron (and steel) industry, turning out T-rails, railroad cars, mine cars, ornamental fencing, and much more. At the same time, the northeastern Pennsylvania anthracite fields were gearing into full swing. Many coal-patch settlements sprang up within the North Branch agricultural region, like Centralia, Mount Carmel, Mahanoy, etc. The larger mining-centered cities of Wilkes-Barre and later Scranton were within easy reach by rail connections after about 1860. The farming counties nearby quickly adjusted to cater to these markets.¹⁰ The rising non-agricultural populations in these industries, along with the urban commercial establishments that developed to serve them, created a market for foodstuffs. For example, Northumberland went from 41,000 in 1870 to 122,000 in 1920; Lackawanna/Luzerne from about 225,000 to 750,000. Overall, while farming remained highly diversified, a greater proportion of products was exchanged in the cash economy.

⁹ *Census of the United States, Population Schedule, Pennsylvania, and Industry Schedule, Pennsylvania, 1870, 1880, 1920.*

¹⁰ Community Program Studies, 1923-1971, The Pennsylvania State College Department of Agricultural Economics and Rural Sociology, Community Studies, for Benton, Columbia County, Box 02493, mention that as long as the miners in Scranton and Wilkes-Barre were working, the farmers flourished (Penn State Libraries Special Collections).

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A Lycoming County farmer captured this situation nicely in an 1898 letter to the *National Stockman and Farmer*. S. F. Rentz reported: “We do mixed farming here, that is, we raise wheat, rye, oats, corn, buckwheat and potatoes. We have a good local market at Williamsport. We make butter and sell it to customers at a stated price the year round, delivered every Saturday, also eggs. We have a good grain market up the Loyalsock [sic] – that is, for con, oats, and hay. Our wheat goes to Montoursville, where there is a large mill that will take all the wheat raised here. We raise stock and sell some fresh cows to the milkmen every year. We also raise hogs.”¹¹

Products, 1860–1940

Western wheat, flour, and to some extent beef presented stiff competition for their Pennsylvania grown counterparts; but local farmers could offset these losses by developing and selling more perishable products and local specialties. Census data from Columbia, Montour, and Snyder Counties suggests that many farms were pursuing a corn-and- livestock strategy, feeding corn to swine and poultry. Corn production in many townships was well above state levels, as were numbers of swine and poultry.¹² Potato production was also well above average. Conversely, these farms supported below average numbers of beef and dairy animals. Farm-made butter production dropped below the state average, and fluid milk production was also relatively low in most townships.

¹¹ *National Stockman and Farmer*, May 26, 1898, 224.

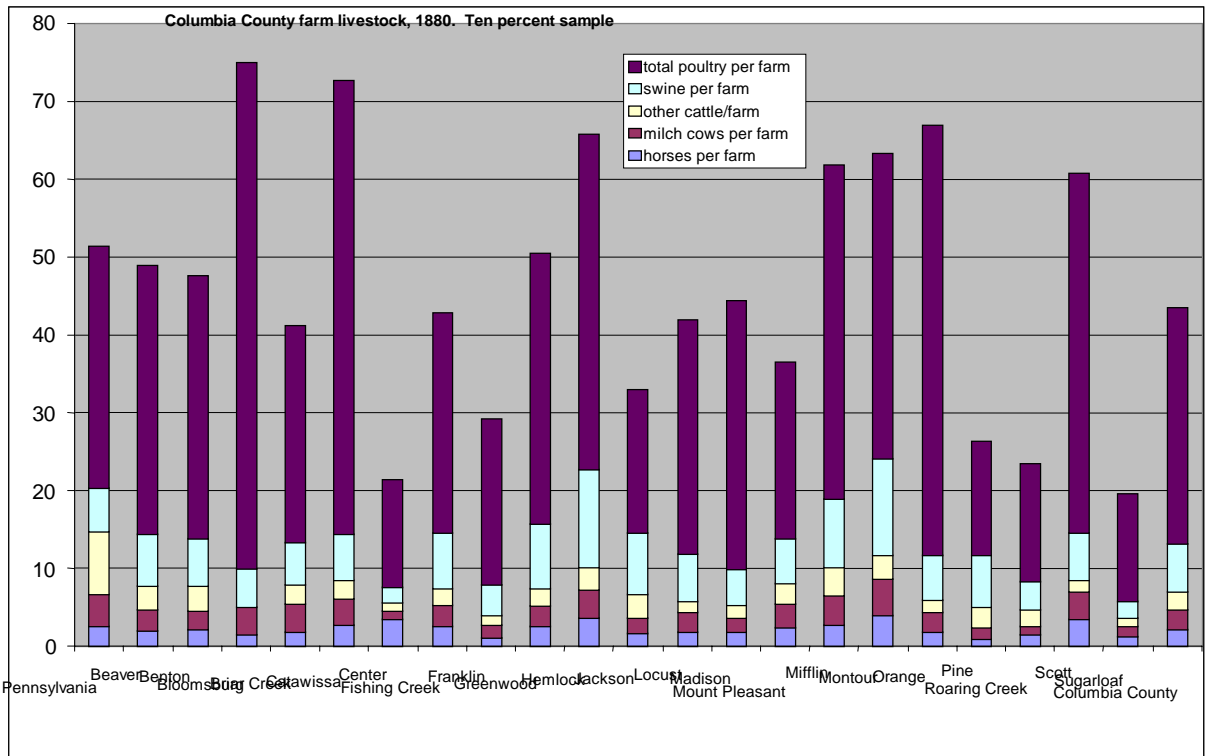
¹² However, the Union County extension agent says in 1920: “poultry keeping on the average farm in Union County is considered a side issue. In most cases the farmer’s wife or children care for them in a crude way and as a result they are not very profitable.” The agents consistently wrote about “poultrymen,” but photos of their demonstrations always show substantial attendance by women, and frequently women made the best profit records in the poultry trials. Union County Agricultural Extension Agent Narrative Report, 1920 (Pennsylvania State College Agricultural Extension Archives/ The Pennsylvania State University Libraries Archives and Special Collections).

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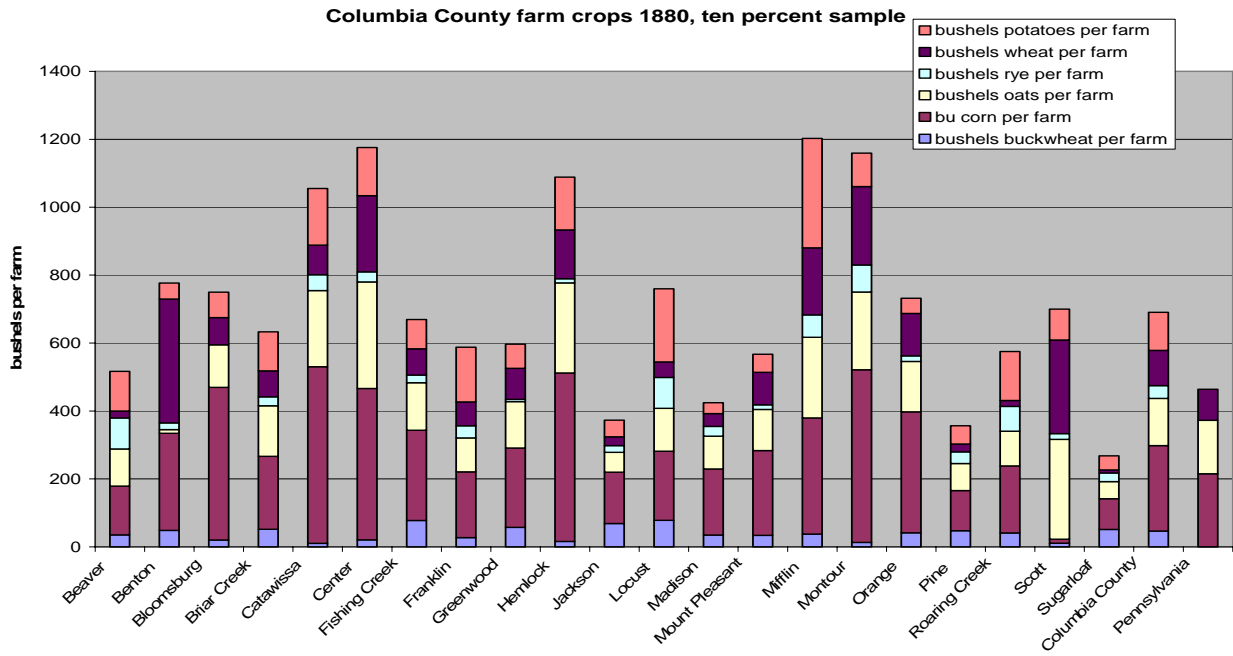
Data for the two charts taken from *Nonpopulation Census Schedules of Pennsylvania, 1880*.

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This chart shows that in many townships, corn production exceeded state averages. Data for the next two charts was taken from the *1927 Triennial Census of Agriculture*.

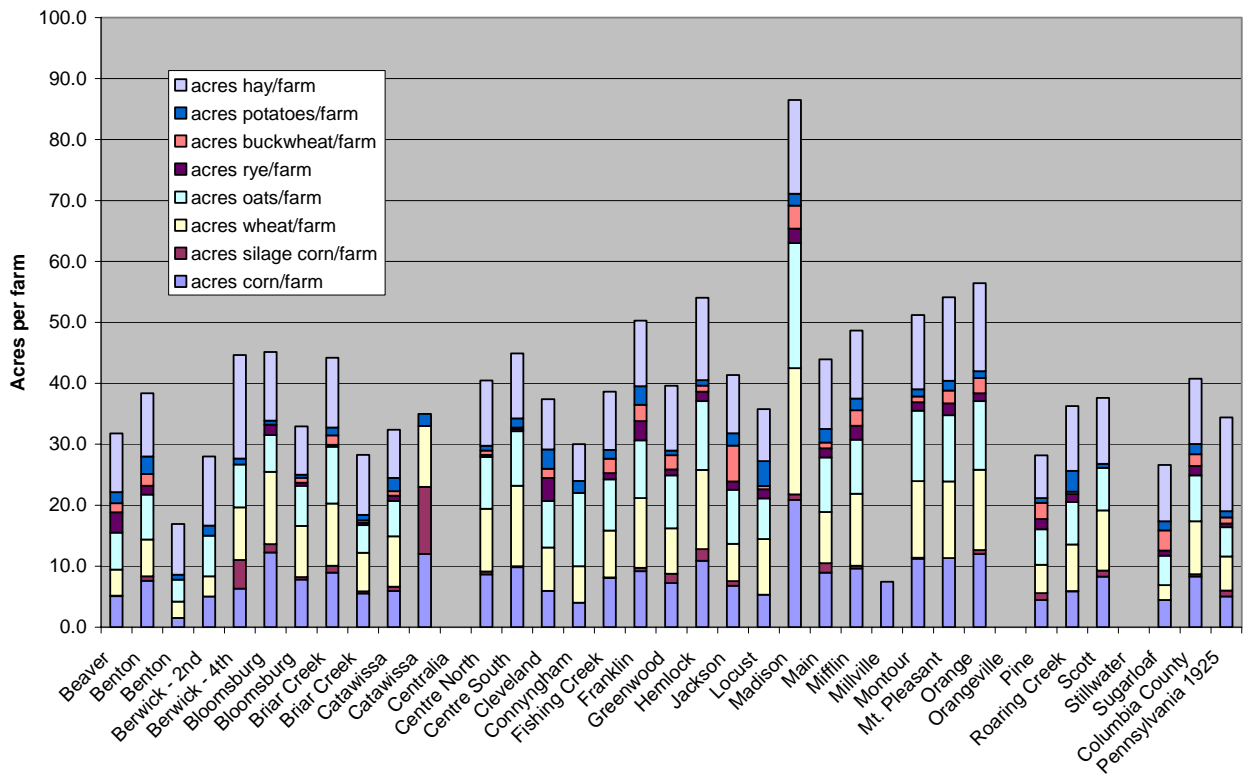
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Columbia County farm Crops 1927. Average farm acreage 78, 41 in crops.



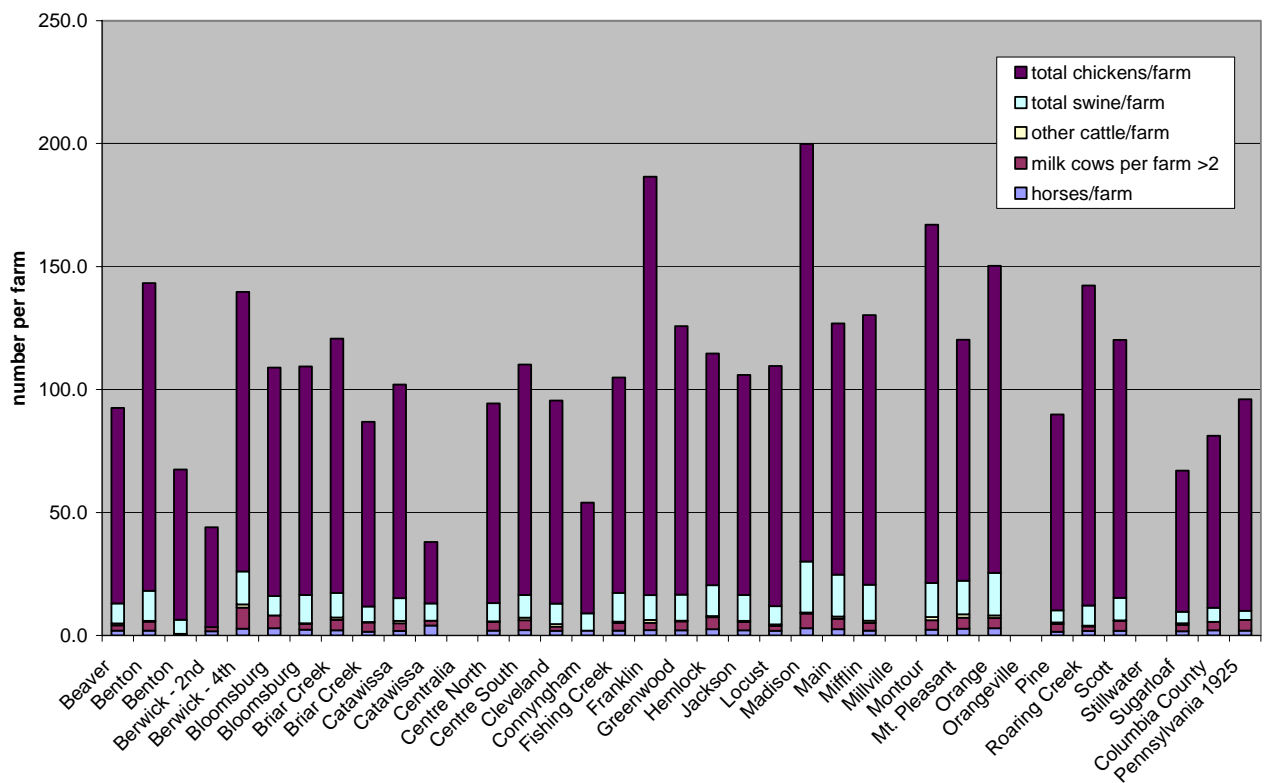
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Columbia County farm Livestock, 1927



These charts show how Columbia County emphasized corn and hogs, and also basic continuities from the late 19th into the early 20th century.

So, some products were featured more than others, but always within the context of a highly diversified mixed agriculture. It is the *pattern* of diversification that marks out the region, rather than the *fact* of diversification. As before, very few farms could be called “specialized.” Around 1900, a typical farm in the region featured a crop and livestock mix that would include poultry and poultry products (mainly chickens but also some turkeys); pigs and pork; market produce, including small and large fruits and vegetables, especially potatoes. The Union County report to the state agriculture board in 1882 that

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local farmers had shipped out “thousands of bushels” of potatoes by rail.¹³ Typically, farms produced just enough butter to supply household needs; corn and hay for feed and for sale; and smaller-scale sidelines such as cider; honey; buckwheat flour; and even fresh fish. Selected directory entries for Center Township, from the 1901 *Directory of Columbia and Montour Counties*, will give a flavor for these enterprises:

- Harris Philip, Cabin Run, Justice of the Peace, grower of berries and peaches 1600 trees, nursery peach trees and berry plants, dairy 5 cows, farmer 75 [acres]
- Ruckle, George, Orangeville, breeder of full blood Berkshire and Chester White swine, dairy 7 cows and farmer 235
- Sharretts Delmer E, Fowlerville, manuf of field and plaster lime and building stone, breeder of full blood Chester White swine, farmer on shares for Mrs. J L Williams 43 and for Mrs. Alice D Sharretts 43
- Shuman John E, school director, market gardener, stock dealer, dairy 9 cows, farmer 88 Lime Ridge
- Spear Arthur w, Cabin Run, post master, breeder of full blood Plymouth Rock fowls, dairy 6 cows, farmer 76
- Whitemire Daniel B, Orangeville, soldier in com H 178 Reg PA vol, owner of carp pond fish for sale farmer 112¹⁴

The 1915 county history for Columbia and Montour gave a profile of the region’s agriculture. It noted that the area’s principal field crops were wheat, buckwheat, oats, corn, rye, and potatoes. Buckwheat was said to be especially important. The author claimed that a variety of “Amber wheat” was a product of Columbia County, developed by William J. Martin of Catawissa. Millville, Benton, Orangeville and Washingtonville vicinity were the centers of buckwheat production. He continued: “the flour from buckwheat is used chiefly for griddle cakes, one of the prominent hotels of New York City making a specialty of serving cakes made from Fishingcreek buckwheat. A small amount of the flour is used to make “scrapple” by butchers, while in Holland it is extensively used in the manufacture of gin. In 1904, when wet weather damaged the

¹³ *Annual Report* (1882), Pennsylvania State Board of Agriculture, 375.

¹⁴ George Hanford, *Directory of Columbia and Montour Counties, Pennsylvania* (Elmira, New York: G. Hanford, 1901).

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crop, quantities of buckwheat were exported to Holland from Columbia and Montour counties.”¹⁵

The 1880 and 1927 censuses do not really suggest a huge amount of buckwheat activity; Bradford County produced significantly more. Perhaps the Columbia County buckwheat attracted more notice because it was made into flour and consumed by humans, whereas presumably in colder Bradford County it was sown when another crop failed, or served as a cover crop. Another reason is likely that buckwheat was a cash crop in the Susquehanna Lowlands. An excited correspondent wrote the *National Stockman and Farmer* in 1902 from Lycoming County that ““buckwheat was good crop and thousands of bushels shipped from Hughesville, which probably brought in more ready money to the farmers than any crop that was raised this year.”¹⁶

The 1929 agricultural extension report for Columbia County mentions that potatoes had “come to be one of the principal field crops in the county,” having a “ready market... in the nearby hard coal territory.” The agent recorded a considerable interest in “storage houses” and helped demonstrate techniques of “pitting” potatoes when cellar storage was unsatisfactory or inadequate (1927, 1933).¹⁷ Columbia and Snyder Counties doubled their potato acreage between 1884 and 1924. The acreage in the remainder of the counties in the North and West Branch region stayed steady, but increased yields meant greater production. The growth in the potato industry was part of a wider adjustment by Pennsylvania farms as they sought products for nearby markets. The Union County agricultural extension report for 1920 noted that: “a general practice of the farmers in Union County is to grow all the farm crops possible, and in addition run a dairy.” Union County river bottom farms produced corn, early potatoes, hay and livestock, and truck crops, while the shale lands yielded corn, oats, potatoes, buckwheat, and livestock.¹⁸

¹⁵ *Historical and Biographical Annals of Columbia and Montour Counties, Pennsylvania* (Chicago: J. H. Beers & Co., 1915), Chapter IV, 28

¹⁶ *Historical and Biographical Annals of Columbia and Montour Counties, Pennsylvania* (Chicago: J. H. Beers & Co., 1915), Chapter IV, 28; *National Stockman and Farmer*, Volume 25, Part 2, January 2, 1902, 1041.

¹⁷ Snyder County Agricultural Extension Agent Narrative Report, 1927, 1933 (Pennsylvania State College Agricultural Extension Archives/ The Pennsylvania State University Libraries Archives and Special Collections).

¹⁸ Union County Agricultural Extension Agent Narrative Report, 1920 (Pennsylvania State College Agricultural Extension Archives/ The Pennsylvania State University Libraries Archives and Special Collections).

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The role of swine in the local economy was still prominent early in the twentieth century: the 1915 history stated that “it is taken for granted that the average farmer will raise enough pork for his own use, and that is true of Columbia and Montour counties, but in addition enough hogs are raised to make the industry quite a lucrative one to the shippers supplying outside markets.” Berkshire, Chester White, Duroc-Jersey, and Poland-China were the most popular breeds, “all of the fat or lard type of swine”.¹⁹ Pigs were highly visible throughout the region, not just in Columbia and Montour Counties.

These data from the first decades of the twentieth century therefore reinforce the picture of mixed farming, with a focus in poultry, hog/pork production, and perhaps buckwheat, fruits and vegetables. The level of corn production suggests that grain was sold as well as fed to animals, since silage was still unimportant in the region.

Labor and Land Tenure, 1860–1940

Family labor still predominated on farms in this period. On average, the 1880 manuscript census indicates that a typical farm seldom hired even a single laborer (usually male) for more than 28 weeks, and most made do with ten or fewer weeks. The product mix suggests that all family members performed productive work. For example, women churned butter for the household. All family members helped to tend, harvest, and process fruits, large and small. Apple buttermaking was an important communal activity.²⁰ Swine, an important part of this local economy, traditionally were fed by women and children and were often paired up with poultry, also women and children’s responsibility. Swine killing, butchering, and meat processing was a community affair, usually accomplished in groups of families each fall. A photo in the Union County local history shows butchering in 1902. It shows the *vorhof* clearly. Field crops such as hay, wheat, corn, and buckwheat were planted, tended, and harvested primarily by men, though it is more than likely that women still participated in haying and grain harvesting. Maple sugar making was family labor, and if Somerset County trends held elsewhere in German Pennsylvania, the trend was toward more participation of women and children as the technology changed.

¹⁹ *Historical and Biographical Annals*, Chapter IV, 30.

²⁰ See the photos in Charles M. Snyder, *Union County Pennsylvania: a Celebration of History* (Lewisburg, PA: Union County Historical Society, 2000), 39.

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The diary of a Columbia County farmer's wife at the turn of the twentieth century illustrates these patterns. Mrs. Wilson E. Creasy kept a diary in 1905. At the year's beginning, she wrote:

Jan. 2: Today I churned and fixed for butchering.

Jan. 13: Today I sowed [sewed], helped Grandmother with her dress. Mrs. Kelchner was here in the afternoon. Mary had speaking at school, she spoke "Pussy to Tea."

Jan. 27: Baked bread and fixed a comfort. Cold.

Feb. 10: Baked bread and doughnuts this forenoon, this afternoon Mother & I finished piecing our goose chase quilt.

Feb. 13: I did my morning work and then did a big churning . . . cleaned the privy.

Mar. 7: Baked bread and pies. Anna and Martha, baby, was hear, helped me quilt all day. Mrs. Kelchner helped a while this afternoon, John Dieterich came this evening to work for us till April first. Hung up our first meat to smoke.

Mar. 17: Baked bread, cookies, pies, kept fire in smoke house, cut carpet rags this afternoon, W.E.C., Jim Williams was to Bloom[sburg].

These excerpts show that Mrs. Creasy was involved not only in churning, but also in butchering; perhaps John Dieterich was hired to help with butchering. We may infer that this early butchering was done for sale, because Mrs. Creasy notes at one point that "Mrs. Albertson was down for lard, 3 1/2 lbs.", and that "Alice Sharretts got 7 lbs. side meat and 5 lbs. spair ribs" and later on she explicitly notes that "Oct. 24: I baked bread & pies, killed a hog for our own use." [emphasis added]

Mrs. Creasy and her daughter tended, killed, and cleaned chickens (also "caught chickens to sell"); made a duck house for nine baby ducks; churned; made soap; baked; and cooked for the "thrash men." On September 13, she laconically reported: "I baked bread and churned and canned peaches. The baby was born in the afternoon about a quarter to six." In spring, she cleaned the summer kitchen, and in summer the garden

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kept her busy harvesting, canning, and saving seeds. She referred to a “truck patch” which suggests she was selling garden produce.

Mrs. Creasy noted often that her husband traveled to Bloomsburg or other nearby towns, to market, to get horses shod, to auction sales, etc. At one point, his wife noted “I was alone with the work at the barn.” He also cut corn, shelled corn, and helped in threshing. Creasy also was active in the Grange and other agricultural organizations.²¹

As the Creasys’ lives show amply, diverse subsistence production flowered in these years. Farms were well established and families looked to gain a “competency.”²² Old methods for processing and preserving foods (drying, pickling, smoking, etc) continued, and newer ones (notably canning and preserving jams and jellies with now inexpensive sugar) were added to the repertoire. Pennsylvania German foodways flourished as traditional foods such as scrapple, sauerkraut, schnitz, etc. were augmented by pies, jams, preserves, and baked goods. Much of this was created through the energies of women. Successful farming depended very much on the combined labor of men, women, and children.

Some observers complained that local industry and urban businesses drained labor away from the farms, especially women. For instance, in 1901 a writer from Northumberland County, opined that “Girls do not do house work on the farm, they work in the various mills and factories in the day time and mop up the sidewalks along the principal streets of our towns at night, while their mothers wash and iron for them and make pastry through the week to feed their male friends on Sunday.” Clearly this critic had an axe to grind, but it is not at all surprising that farm girls might be attracted by the higher pay and possibly less arduous work in town.²³

During these years, Columbia, Montour and Northumberland County farms continued the previous trend as far as farm size and mechanization were concerned. That is, they were at once smaller and more mechanized than the statewide average. Mechanization actually

²¹ All of these quotes are from “Excerpts from the Diary of a Farmer’s Wife, Mrs. Wilson E. Creasy, 1905–06.” The diary is part of the Columbia County Historical & Genealogical Society’s holdings. Accessed from their website, <http://www.colcohist-gensoc.org/Essays/creasydiary.htm>, 7 July 2004.

²² For further discussion of this term, see the first section of this agricultural context on early agriculture in the settlement period.

²³ *National Stockman and Farmer* April 4, 1901.

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increased relative to the statewide patterns. This phenomenon should probably be attributed to the availability of locally manufactured agricultural implements, and to competition for labor from local industry. During the Civil War, the pace of mechanization accelerated; the firm of Geddes, March, and Co. in Lewisburg twice doubled its output of reapers patented by Obed Hussey. Together with another factory, this industry was the “largest employer in Lewisburg.”²⁴

Farm technology continued to be dominated by horsepower. By 1927, in most townships, less than a quarter of farms had tractors; slightly more, but usually a minority, had [stationary] gasoline engines; very few had electrical power. Not surprisingly, household conveniences such as running water were also uncommon. However, autos or trucks were nearly universal. Thus late in this period we should look for the impact of autos and trucks.

With respect to land tenure, while Northumberland and Snyder Counties had a slightly higher than average rate of tenancy – from a quarter to a third -- Montour and Columbia were right at the state average of about 20 percent in 1927. A fifth of all farms is not an insignificant figure; at least one site surveyed in field work did have two houses (109-UN-002, Union Township in Snyder County.). So, the occasional tenant house is to be expected, but field survey work did not uncover pervasive impacts of tenancy otherwise, as were found in higher tenancy areas of the Central Limestone Valleys.

Production, labor, and land tenure patterns continued to be influenced by ethnicity. Some areas may have become even more Pennsylvania German than ever. The Mahontongo Creek area, for example, was a heavily Pennsylvania German area, and Snyder County

²⁴ Snyder, 40. Note: The evidence for this is uncertain. The only year for which published county level statistics are available in this period is 1900, and these show that Montour paid more than average per farm for labor in 1900; Northumberland almost exactly the average; and Columbia well below average. So there is no discernible pattern there. The Pennsylvania Board of Agriculture annual reports on wages for the late nineteenth century show that in these three counties farm wages were at or below average for the state— suggesting there was not that much competition if one assumes that wages would rise if workers were in demand. Many questions are unanswered: was the labor pool even skilled in agriculture? Was there discrimination? Did farmers with tenants not count wages paid for labor? Or, does the low activity with respect to expenditures for labor reflect a preference to invest in machines instead? That is, they’re not turning to machines because labor is expensive, they do not need workers because they have machines?

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one of the most thoroughly Pennsylvania German in the entire state.²⁵ Indeed, Pennsylvania Germans were important, if not dominant, in the agrarian communities of the region. A Pennsylvania State College Rural Community Study reported in 1923 that In Middleburg “in stores and at social events one hears a good deal of Pennsylvania Dutch.”²⁶ By the early 20th century, significant numbers of immigrants from Eastern and Southern Europe resided in the area, most of them working as miners and laborers. Slowly they began to appear among the ranks of farmers. A 1922 social survey of Columbia County noted, “Poles, in considerable numbers, have occupied farms, especially south of the Susquehanna River.”²⁷ The PSU Department of Rural Sociology and Agricultural Economics community studies noted that in Columbia County “marginal farm is being abandoned, while whatever farms are taken up, are purchased by the Catholic Lithuanian, Poles and Slavs who are coming to take them up.” However, survey work did not identify any particular landscape manifestations of these ethnic changes.²⁸

²⁵ *Songs Along the Mahontongo: Pennsylvania Dutch Folk Songs*, gathered and edited by Walter E. Boyer, Albert F. Buffington and Don Yoder (Hatboro, PA: Folklore Associates, 1951); Mark Hornberger, “The Spatial Distribution of Ethnic Groups in Pennsylvania, 1800–1880: A Geographic Interpretation” (Ph.D. diss., Pennsylvania State University, 1974).

²⁶ H. Zahorski, “Write Up,” Pennsylvania State College Department of Agricultural Economics and Rural Sociology Community Studies, Box # AX/PSUA 02493.

²⁷ H. N. Morse, *The Country Church in Industrial Zones: The Effects of Industrialism upon the Church Life of Adjacent Rural Areas as Illustrated by Two Typical Counties* (New York: G.H. Doran Co., 1922), 31.

²⁸ Pennsylvania State College Department of Agricultural Economics and Rural Sociology Community Studies, Write-up, Box # 02493, 1930. The individual 1927 census schedules and local tax returns might yield information on ethnic patterns.

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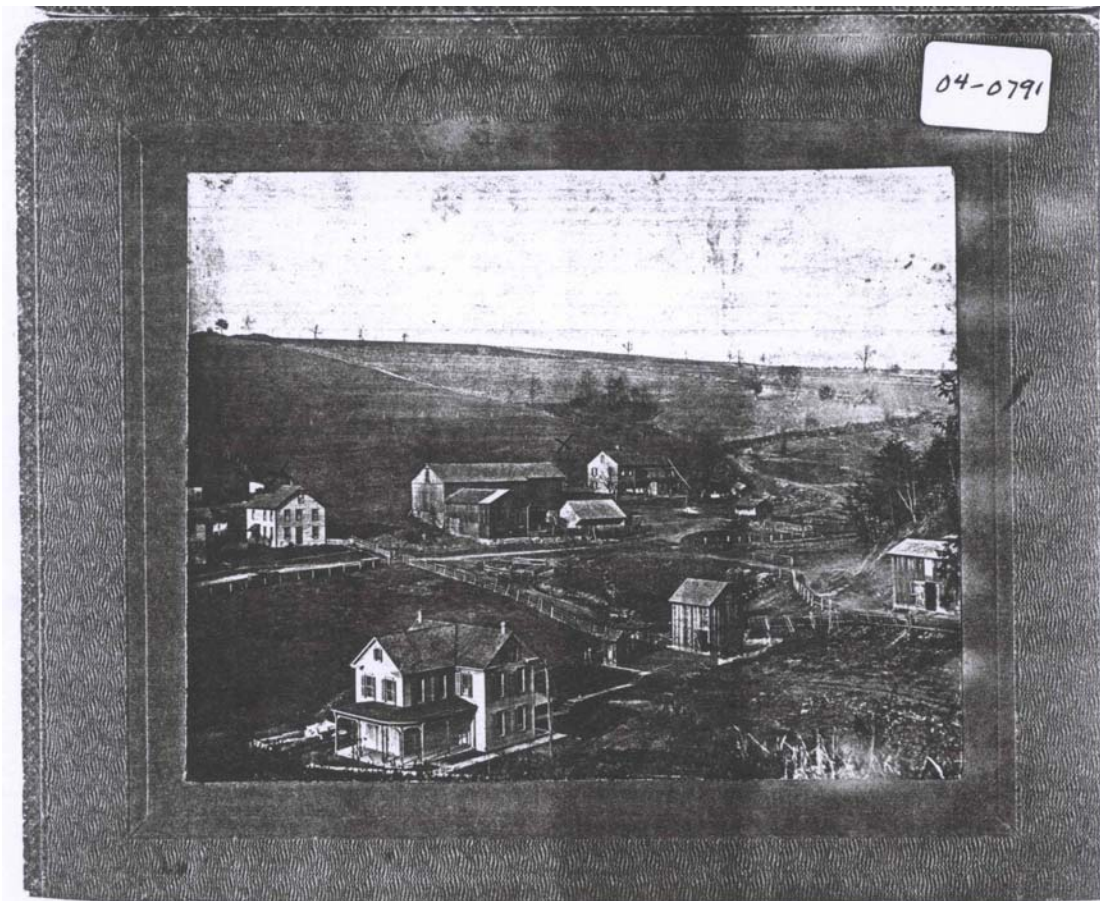
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Buildings, 1860-1940

Houses, 1860-1940



Columbia County photo # 04-0791. Columbia County Historical Society.

There seems to have been a boom in house building between about 1860 and 1900 in this region. This observation is based on survey work and historic images, with dating

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according to standard analysis of architectural detail.²⁹ The rural housing stock from the late 19th century essentially continued forms established earlier, but with greater symmetry, contemporary ornament, and simplified construction systems such as plank. (It is hard to tell from field survey, some examples may be earlier, but updated with Victorian era trim.) Also, the occasional form based on national popular-culture models appeared. For example, Columbia County Historical Society photo #04-0791 shows a later “T” shaped two-story house with end chimneys and elaborate porches. The nineteenth-century *Atlas of Columbia and Montour Counties* illustration shows a five bay, two room deep house with rear two story extension and end chimneys.³⁰ However, in general, it seems that new houses were conservative in form, electing to recognize fashion through relatively minor concessions to ornament rather than through adoption of popular forms such as the Victorian or bungalow.

²⁹ Besides the examples depicted here, note the following: items from the Columbia County Historical Society photo archives: a late 19th century photo (# 02-1411) shows a stone house with six bays, more than one door, end chimneys, porch extending across front. # 04-0791 shows another multi-bay house with center chimney, hard to make out any other features except that it is two bays deep. The same goes for # 09-0005, which is in Madison Township, which is oddly configured. # 30-3519 shows a two-bay-deep house with rear extension.

³⁰ *Maps, Engravings and Articles from the 1876 Atlas of Columbia and Montour Counties, Pennsylvania, from Recent and Actual Surveys and Records Under the Superintendence of G. H. Walker and C. F. Jewett*, (F. W. Beers and Co: New York, 1876).

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GR-006. House, Greenwood Township, Columbia County, c. 1867, features a by now standard look, updated with center gable, French doors, 2/2 windows, and bracketed porch and cornice.

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Barns, 1860–1940



Northumberland County, 097-DE-006,
Delaware Twp. A PA barn modified with an
ell.

The main barn, invariably substantial, might be a standard Pennsylvania barn, but more often it was a three-gable barn. The three-gable barn might essentially consist of a Pennsylvania barn with a somewhat smaller ell; or the “L” shape might be integral from the outset. For example, Columbia County photo archives from the late 19th century show rather large frame bank barns with ell gabled additions. One has a single gable end addition, another has two; one has a machine shed under the barn and drive through corn crib/machine shed. A third picture shows a PA Barn with gabled ell.³¹ (See example left).

However, another pattern found in fieldwork seems to set the barn in the North and West

Branch region apart from barns in other regions: the evidence suggests that some barns tended to house more functions than elsewhere. It is less usual to find simple, standard Pennsylvania Barns. The three-gable barn is the norm; and even these tend to house numerous functions and to have extensions of various kinds. In other words, these barns centralize even more functions than is typical in Pennsylvania. They tend to have lots of accretions, or they are divided internally for many functions, or both. So, for example, Historic Rural Pennsylvania Site # 004 in Greenwood Township, Columbia County, has a large three-gable barn that includes the usual threshing floor, hay mows, and straw shed, but also a poultry extension; a pig pen in the lower level of the straw shed; and two sets of cattle stanchions. This farmstead lacks a freestanding pigsheds and poultry houses, suggesting that this family chose a centralizing strategy. Another example is Snyder

³¹ Note that in all three of these, the total barn adds up to something a bit short of a full-blown “three gable” barn; the extensions are smaller, not integral, sometimes below the main roof level, almost different in scale from the main barn. Also note that some Columbia County barns seem to have gable end additions to the main block (i.e., not an ell but a continuation on the gable side) that are set back from the main barn. Photo # 30-0072 [from the Columbia Co. photo archives] shows a standard Pennsylvania barn with stone foundation and worm fence enclosing yard. #3-30-0085 [from the Columbia Co. photo archives] shows a Pennsylvania Barn with center gable roof.

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County, Union Township site # 109-UN-002, which has a three-gable barn with 3 or 4 machine shed type extensions added onto the “ell.”



037-gr-004-15. Barn, America. This barn integrates hog house in the ell; poultry in the main wing; machinery bays; and stanchions. Greenwood Township, Columbia County

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037-gr-008-07. Barn south side. Greenwood Township, Columbia County. Essentially, the outbuildings are grafted onto the main barn.

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037-LO-006-06. Barn, Locust Township, Columbia County. The shed-roof extension suggests poultry housing and machinery storage, while the portion to the right seems to have originated as a Pennsylvania barn (the forebay is partially visible).

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Site # 005 in Greenwood Township, Columbia County (above) contains two machinery bays; a straw shed; an outshed granary on the bank side; and two added shed-roof extension for poultry, added on to the straw shed.

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Despite this centralizing tendency, farms in the region were also likely to have a complement of outbuildings. The most important of these are described below.

“Butcher House,” 1860–1940



Northumberland County # 097-DE-003. Possible butcher house in foreground with hog house in rear.

CRM surveys in the 90s documented in Snyder County along Route 15 “an unusual little outbuilding type. It looked somewhat like a summer kitchen, but not exactly, had lots of doors and windows, and a highly finished interior.” These were locally known as “butcherhouses.” They always were very “highly visible from the road.” “Over a third of farmsteads in the project area” (the Susquehanna Valley area around Northumberland including Selinsgrove, Lewisburg, Northumberland) had them.³² These don’t have visible chimneys or outlets for stoves. They were mostly frame, dating to the late 19th century. The surveyor who initially surveyed this area questioned the “butcher house” usage because the buildings were so highly finished (that is, more care was taken in matters of architectural trim such as mouldings, use of better grade siding etc.). The

³² Anna Andrzejewski, email to Sally McMurry, 1 April 1998.

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census from both 1880 and 1927 confirms that swine populations were much higher in this region than in the rest of the state, so it follows that processing facilities would reflect this aspect of the farm economy.³³

The nomenclature used for these buildings is somewhat misleading. Butchering facilities in other areas (Berks County, Somerset County) sometimes were accommodated in the summer kitchen or washhouse and sometimes in “butcher sheds” (Berks County HABS has one example.) These housed large set-kettles encased in brick, along with tables and shelves. There were indeed ample windows, presumably to provide the necessary light for the work of cutting up carcasses (which would come into the butcher house already scraped and gutted), cooking, sausage stuffing, scrapple making, etc. However, in the North and West Branch region, the buildings that were documented as “butcher houses” did not have provision for cooking. It seems that they served for cutting up meat and perhaps preparing meat for smoking or sausage making. They did not exhibit a consistent roadside siting, nor did they always have unusual levels of architectural finish. Architectural historian Jerry Clouse says: “Regarding butchering, a whole half of a hog was removed from the gallows or hog hangers to be cut up into shoulders, hams, bacons, etc. Often sausage stuffing, scrapple making, etc. took place outside. The pans of scrapple, coils of sausages, hams, shoulders, slabs of bacon, etc. were laid out on a long table(s) in a butcher house/shed to cool. The hams and shoulders had to cool for six hours to a temperature just above freezing. Then the hams and shoulders went through a two-week curing process. Then they were ready for smoking.”³⁴ Thus the “butcher” function pertains not to the actual butchering, but to the cooling.

These buildings are strong evidence of production strategies, possibly also Pennsylvania German foodways. Jesse Houseknecht’s father killed four hogs a week during the Depression and peddled them himself on a route in Muncy, Lycoming County. The family farm had a butcher house with an adjoining space that housed a kettle for making scrapple and equipment for sausage making.

³³ We do not know yet if there was a retail function to these spaces.

³⁴ Jerry Clouse, personal communication, summer 2005.

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(Left): Butcher house, Greenwood Township, Columbia County GR-004. This building is sited near the house. It does not contain any facilities for cooking. The owner thinks it was used for cutting up meat while the actual butchering was done out doors. The pig shed is in the barn about 75 yards away.



097-DE-003-07. Northumberland County, Delaware Township. Butcher house in foreground, hog house in background.

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037-NC-001. North Center Township, Columbia County Butcher house.
The roof patch could indicate a chimney.

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Smokehouse, 1860–1940



Smokehouse. Northumberland County 097-DE-001. This building probably dates to the late nineteenth century. Smokehouses would be obvious complements to the corn/hog enterprise.



109-UN-002-23. Smokehouse, looking W, Union Township, Snyder County

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Spring House, 1860–1940



Spring house. Delaware Township, Northumberland County, # 097-DE-005

Spring houses continued to serve important functions into this period. The frame springhouse shown above is sited near the house, reinforcing its importance to women's labor. On field survey sites, several springhouses were built (or perhaps rebuilt) of modern materials such as concrete block. Butter was not made in commercial quantities, but there was still a need for cool storage and processing space for household use.³⁵ This photo shows collective work (though perhaps it was posed), and also the two-story springhouse is in the background.

³⁵ For a nice photo of butter making, taken 6 September 1897, see Snyder, 38; also Jody Blake and Jeannette Lasansky, *Rural Delivery: Real Photo Postcards from Central Pennsylvania 1905–1935* (Lewisburg, PA: Union County Historical Society, 1996), 119.

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037-LO-005-06. Concrete block spring house. Locust Township, Columbia County.

Machine Shed, 1860–1940

These should be interpreted as evidence for a relatively high level of mechanization in the region. These buildings are very common, and coupled with evidence for a high value of implements per farm, we can fairly conclude that machine sheds express high farm mechanization.³⁶ During this period, machine sheds were most likely to be built in frame. Typically they would have at least one wide bay on the eaves side to admit machinery. Often they would have a corncrib integrated.

³⁶ See the drive-through machine shed in Columbia County Historical Society photo archives # 02-1416.

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037-LO-004-14. Machine shed with root cellar below, looking SW. Locust Township, Columbia County. This machine shed was constructed of moulded concrete brick.



037-LO-007-03. Machine shed, looking S. Locust Township, Columbia County. This frame shed was conveniently sited by the road.

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Machine shed and corncrib.
Columbia County GR-002.



037-LO-002. Machine shed, Locust Township, Columbia County.

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Summer Kitchen, 1860–1940

In general in Pennsylvania, especially German Pennsylvania, the late 19th century witnessed a wave of summer kitchen building. The very term “summer kitchen” did not seem to come into common use until the mid 19th century.³⁷ The timing of its appearance can be related to the adoption of the stove for both cooking and heating. Here’s why: the wood-burning cook stove, popularized from the mid 19th century onward, created considerable heat and took up space in the middle of a room, unlike its open-hearth predecessor. Simultaneously, it permitted greater architectural flexibility, because a building didn’t need to be designed around heavy, structurally complex hearths and flue systems. The result was that cooking was increasingly isolated within the house, or isolated outside the house in a summer kitchen. There is also evidence that people actually moved the cookstove into the main house for the winter, and into the summer kitchen for the summer.³⁸ The summer kitchen should also be interpreted as a reflection of the increasingly complex subsistence work, done mostly by women, in this period. In Pennsylvania German households, the summer kitchen also helped to sustain ethnic foodways.

Mid-century summer kitchens might be built of brick or frame; later summer kitchens tended to be frame. Summer kitchens typically had a higher level of finish than would be found in rougher outbuildings; stove or set-kettle; tables; windows. Some historians suggest that families actually ate meals in the summer kitchen in summertime. Siting was either adjoining the house as a wing, adjoining through a partial connection, or separate, but still close to the house. A chimney would indicate where the stove was placed.

³⁷ The detached “kitchen” appeared with some frequency in the 1798 Direct Tax, but the term “summer kitchen” seems to be a nineteenth-century development. Eli Bowen mentions a “summer dining kitchen” in his *Pictorial Sketch-Book of Pennsylvania, or, Its Scenery, Internal Improvements, Resources, and Agriculture* (Philadelphia: W.P. Hazard, 1852).

³⁸ Priscilla Brewer, *From Fireplace to Cookstove: Technology and the Domestic Ideal in America* (Syracuse: Syracuse University Press, 2000).

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Summer kitchen, Probst farmstead, Clinton County, c 1916. HABS photo by Rob Tucher, 1991. Historic American Buildings Survey website, Survey number HABS PA-5523-B. Note door, windows, and chimney. Kitchen is located near main house. According to HABS (Historic American Buildings Survey) documentation, this kitchen was used for canning, storage, and other related activities. Its use declined after electrification in 1936.

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037-GR-008. Summer kitchen, Greenwood Township, Columbia County.

Summer kitchens should be interpreted as strong evidence for an elaborated set of subsistence activities, related to rich foodways, largely postdating the arrival of the cookstove, and sustained primarily by farm women.

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Columbia County, Greenwood Township, site GR-008. Summer kitchen, corncrib, and privy.

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109-UN-003. Summer kitchen, Union Township, Snyder County.

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Root Cellar, 1860–1940

A root cellar consists of an excavated underground area, lined with masonry and sometimes shelves, and having an entrance. It's usually between the house and barn. Sometimes its roof is barrel vaulted. Its purpose is to exploit the year-round constant temperature that prevails below frost level (around 50-55 degrees) to preserve such items as potatoes, carrots, cabbages, Brussels sprouts, kale, turnips, and other root crops. Some older houses in southeastern Pennsylvania had root cellars adjoining the main house and accessible via a tunnel, but these were uncommon in the North and West Branch area.



Possible root cellar, site # 081-MU-007, Muncy Township, Lycoming County

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037-NC-006. Root cellar between barn and ice house, North Center Township, Columbia County.

In this region, the root cellar *may* be related to the relative importance of potatoes; to Pennsylvania German food ways (cabbage and other root crops).

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Privy, 1860–1940

As few farms had indoor plumbing, outdoor privies persisted into the twentieth century.



109-UN-001. Union Township, Snyder County, privy, shown in relation to house and yard.

Corncrib, 1860–1940

Generally speaking this building occupied an important place in the agricultural economy of the North and West Branch region, because field corn was a primary feed for hogs. More corncribs were documented in the fieldwork than almost any other outbuilding. The corncrib was needed to store field corn in the ear. Its features would include slats (usually horizontal wooden ones) and/or wire netting for ventilation; doors in the ends for accessibility; anti-rodent provisions (elevating it off the ground level, tight flooring). The earliest corncribs were made of log; it's doubtful that any of these survive in the study area. "Keystone" shaped cribs, flaring from bottom to top, were designed to prevent settling and shed water. Once machine-milled beveled boards became available, designs tended to feature straight sides rather than flared ones. "Cribbing" boards came in several different profiles: slats on wedges, triangular slats cut from two by fours; and beveled cribbing. The last of these could be spaced an inch or so apart, thus providing ventilation; other types overlapped. Most corncribs had wire mesh inside to protect from

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vermin. Double cribs are not uncommon; these usually consisted of two single cribs, roofed over with a sheltered space between for husking or machinery storage. Sometimes the interior side of the crib would be vertical and the exterior sides slanted (and sometimes there would be a shed with a single corn crib.) Corncribs could stand alone, or be incorporated into a barn assembly, either as an integral feature or (probably more frequently) as a shed roof extension.³⁹ In these areas especially where swine raising was important, corn was used for feed, so we'd expect to see corncribs.



Probst corncrib, Clinton County, c. 1918. Photo by HABS. Survey number HABS PA-5523-B, Historic American Buildings Survey website. Photo by Rob Tucher, 1991.

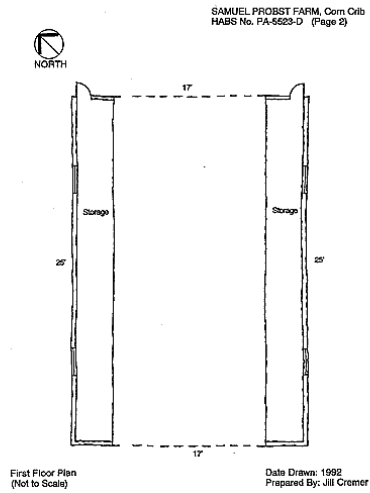
³⁹ Keith Roe, *Corncribs in History, Folklife, and Architecture* (Ames: Iowa State University Press, 1988).

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Union County
corncrib with
loading slots in
clerestory
arrangement.

Hog house, 1860–1940

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The hog house was an important component of the North and West Branch farmstead. The hog pen (*schwein-stall*) occupied an important place on the Pennsylvania German farmstead. Located on the forebay side of the barn, or between house and barn, it was south facing, well drained; and sometimes shaded. The hog pen was a mixed-gender workspace. Kitchen scraps and skim milk or whey were fed to the hogs. The hog pen sometimes had hens' quarters above; since women and children were in charge of both, it served as a multipurpose workspace. Hogs were a cornerstone of family subsistence and Pennsylvania German foodways – from them came hams, sausages, scrapple, and other ethnic delicacies. In the North and West Branch, hog pens also indicate the importance of selling pork to local markets.

Hog pens had a shed roof or a gable roof; a door in the gable end or side. Hog pens of the late 19th and early 20th century generally had windows placed above hogs-head level, with doors leading to fenced runs. The hog pen was designed to ensure warmth and dryness; these had to be balanced with ventilation. The hog pen and corn barn were natural complements.⁴⁰



Northumberland County # DE-002. These pig houses seem to be patterned after models published in agricultural literature of the early twentieth century.

⁴⁰ Columbia County Historical Society photo archive # 04-0791 has three possible examples of hog houses, all of which appear to have tight first stories with a single door for access. # 30-0072 has two which may be hog houses, though it is hard to tell. For an example of a large hog house, see Pennsylvania State College Agricultural Extension Circular #77, January 1919.

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037-LO-004. Hog house, Locust Township, Columbia County. Concrete walls bound the run area.



097-LM-004-04. East pig shed, north and west sides. This hog pen in Lower Mahanoy Township, Northumberland County, occupied the lower level; above, entered from the bankside, was machinery and feed storage.

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109-UN-001-16. Hog house. Union Township, Snyder County. This pen is in a common location, extending from the forebay of a Pennsylvania Barn.

Hen/Poultry House, 1860–1940

Farm flocks were small compared to today-- usually several dozen fowl to more than a hundred-- but above state averages, again reflecting local marketing opportunities. This was especially true in Lower Mahanoy Township in Northumberland County. Shelter usually consisted of a frame building with shed roof, perches and nesting boxes, and access doors. Rows of windows afforded ample lighting. Sited equidistant from house and barn, these structures should be interpreted as reflecting women's and children's labor. The Columbia County published agricultural extension report for 1918 shows a poultry house and a bunch of women and men at a demonstration (siting near the house, essentially in the front yard).

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Poultry house, Greenwood Township, Columbia County GR-005.



037-NC-001. Not typical, but notable. Poultry housing, North Center Township, Columbia County. This may have been a turkey house, note the image below.

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Woman with turkey. Columbia County Historical Society, Columbia County picture # 14-1066. The buildings behind her resemble the ones in the image above.

The Union County ag extension report, 1923, noted that “The modern Pennsylvania State Laying House is becoming very popular and 50% of all the new poultry houses built in this county are of this type.”⁴¹

⁴¹ Union County Agricultural Extension Agent Narrative Report, 1923 (Pennsylvania State College Agricultural Extension Archives/ The Pennsylvania State University Libraries Archives and Special Collections).

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Silo, 1860–1940

There is a tile silo depicted in the Columbia County 1918 published ag extension report. However, the 1927 census shows that no more than ten or fifteen percent of farms had silos. Historic Rural Pennsylvania fieldwork confirmed this; certainly tile silos appeared in the region, but as a rule the sites we documented lacked silos.

Milk House, 1860–1940

A number of sites had milk houses, but not silos, suggesting fluid milk dairying on a very modest scale. These probably date to the very tail end of the period. A milk house is a small structure used expressly for the purpose of isolating fresh milk from the smells, dust, and microbes of the barn environment. While the earlier springhouse housed and cooled fresh milk and provided a space for letting cream rise and for churning, the milk house is a twentieth-century phenomenon. A springhouse would be located over a stream or spring, but a milk house would normally abut, adjoin, or sit near the barn. A milk house would also be sited conveniently near the roadside for easy pickup. The milk house was a small (typically ten or twelve feet on a side) structure with a square or rectangular footprint. Construction materials were often masonry, including concrete block or rock face concrete, but sometimes frame. Most milk houses have gabled roofs, but some have a shed roof.

Milk houses provided a place to store and cool fluid milk before it was transported to market; to store milk cans not in use; and to wash and dry containers (and sometimes other equipment like separators). Plans offered by the USDA for farm milk houses typically gave dimensions ranging about 10 by 13 feet up to around 12 by 20 feet. The very smallest, at 7 by 9, had a concrete foundation with a sunken vat for cooling cans of milk.⁴² All of these plans had sloping floors with drains, and provision for ventilation and light.

⁴² United States Department of Agriculture, Farm Building and Equipment Plans and Information Series. Compiled by Lewis A. Jones and T. A. H. Miller under the Direction of S. H. McCrory. Series Number 550-551, 633-4-5, 759-60, 771-2, 909, 1333-4-5, 1336, 1337-8, 1339-40, 1341, 1342-3, 1345-57, and 1521 all show plans and specifications for milk houses. Penn State University Library. L. W. Morley, "Building the Farm Dairy House," Penn State College Agricultural Extension Service Circular # 107, December 1925, says an 8 by 8 house would "do for a dairy of 10 cows."

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Actual milk houses on farms that were surveyed tend toward the smaller end of this range. While many are freestanding, gabled structures, shed-roof barn extensions are also common. The most common material is concrete block. Milk houses are much less common in the North and West Branch Susquehanna Historic Agricultural Region, where dairying did not gain hold rather late, and in pockets rather than in a wide area.

The milk house should be interpreted as a symbol of the expanded role of the state in farming. By the early twentieth century, municipalities had begun to regulate in the name of public health. Large milk markets like New York City, in an effort to curb the spread of diseases such as tuberculosis and to ensure a clean, fresh and unadulterated milk supply, began to demand that farms producing fluid milk erect separate spaces to isolate the milk from the barn. The agricultural establishment promoted these changes, too, through research into bacteriology, and also by supplying model plans for the buildings themselves. The milk house therefore is a building type that has a much more standardized, less regional appearance than other, earlier outbuilding types.

The milk house also symbolizes the shifting gender distribution of labor in dairying. While many farms continued to produce butter – made primarily by women – milk houses mainly signified a shift to fluid milk sales, a branch of dairy work that became more associated with men. It was still very much a family enterprise, but with the strong association of women with buttermaking removed, women's role in dairying was increasingly regarded as ancillary rather than central.

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Greenwood Township, Columbia County. Concrete block milk house.
Note the relationship to the barn.

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093-LI-008. Liberty Township, Montour County. This site had a tile silo (left) and concrete block milk house (right).

Tenant House, 1860–1940

Tenancy rates in this region varied. In most of the region, they hovered around the statewide rates for the time period. In a few pockets, though, tenancy was higher. This information is available on a township by township basis for 1880 and 1927. It was common for farms to be operated under different land tenure arrangements at different periods in its history. Architecturally, tenancy's manifestations also were varied. If a tenant rented a large acreage, that farm would essentially be indistinguishable from an owner-occupied farm, since the evidence shows little difference in production profiles, mechanization levels, etc. Sometimes, a tenant would rent only a small portion of a larger farm that was owned and operated by the landlord. In this case, the farm property

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might have more than one house. A good example of a farm with a history of tenancy is Snyder County site # 109-UN-002. This site has two houses sited side-by-side. From exterior architectural evidence, it is hard to date them; both have been much altered. One is a five-bay front with asymmetrical fenestration; the other is smaller and looks as if it is only one room deep. According to the owner, the smaller house was built first. The owner also said that in the 1930s the smaller house was a tenant house associated with ten acres planted in potatoes.

Landscape features, 1860–1940



Lycoming County Historical Society Photo # 9666, no date. This photo shows many characteristic landscape features of the late nineteenth and early twentieth centuries: a picket fencing around the house, wood-and-wire fencing around fields; ornamental trees sheltering the house; small front yard; fields reaching almost to house and barn; haystack; and dirt farm lane. Also, this farmstead shows a linear organization of buildings and enclosures and ornamental and shade trees for both humans and animals.

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Lycoming County Historical Society Photo # 10700, undated. This photo shows a linear pattern of farmstead building organization.

Garden

George Franklin Dunkelberger describes the garden: Garden was more fertilized, protected, and more carefully tilled than the other fields. It was divided into “plots... reserved for particular vegetables. These plots were separated from one another by paths made by boards placed on edge and supported by stakes. Scraping these paths at regular intervals with a garden hoe to keep them free from grass and weeds constituted the laborious task of the growing boy. The garden crops were the stable [sic] vegetables such as lettuce, endive, cabbage, onions, beans, peas, cucumbers, asparagus, squash, pumpkins, turnips, watermelon...” Dunkelberger notes the *glabbord*, or picket fence,

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around the yard and garden, which were whitewashed yearly.⁴³ This description also gives a rich picture of the competency. Gardens are increasingly rare on farm properties.



Columbia County Photo # 30-0065, CCHS, c. 1900. The garden is visible behind the house.

Relationship of Farm Buildings

Photos suggest tight relationships among farm buildings. Many farmsteads depicted in photographs show a strong linear pattern. Union County photos in the local history, for example, around the turn of the century show farmhouse often connected to, or adjacent to summer kitchen and other work spaces of the *vorhof*. The Union County soil survey of 1940, plate 6, shows a linear arrangement with three-gable barn, hog house, ancillary buildings, and the house. Others had the house and barn divided by a road (plate 5, same report). Many farmsteads retain their layout.

Ornamental Plantings

It was common for farmhouses to be surrounded, indeed often obscured, by ornamental trees. A photo of Mazeppa, PA, (Blake and Lasansky, *Rural Delivery*, p. 21), shows clusters of evergreens that perhaps surround a cemetery and in the distance seem to be

⁴³ Dunkelberger, 28

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sited by houses. On p. 26 in the same book is a clearer view of the evergreens near the house, along with treeline along the roadway. On page 50 another photo shows picket fence, drive, and combination of deciduous and evergreen trees around the house. Ephemeral plantings, such as clumps of perennials or shrubs, would not survive from this period, but windbreaks or large sentinel trees could remain.

Boundary demarcations – type of fencing, tree lines, hedgerows, paths, etc.

Photographs from the period show an increasingly complex hierarchy of fencing. Often, a white picket style circled the house, post and rail enclosed horse and barn, and worm or stump fences were arrayed on the perimeter. In *Rural Delivery*, p. 26, a photo of a Lewisburg farm shows nicely the hierarchy of fencing: picket fence marking off house on one side and barn on the other; sturdy post and rail along the road. A 1918 agricultural extension report for Columbia County shows a photo of a “well arranged hog pasture,” with hogs grazing in a field, fenced from a neighboring cornfield by wood and wire fencing. In the background is a woodlot. The fields are strips. Photos in the 1940 soil survey of Union County show that fields were divided from each other by treelines, and bounded along the road by wood and wire fencing. It looks as if some of the fields were divided by ditches too.⁴⁴

The 1877 *First Annual Report of the Board of Agriculture* for Pennsylvania reported that the overwhelming proportion of fences in the state were worm fences, followed by post and rail, and last by board fences.⁴⁵ By the twentieth century, barbed wire and woven wire fencing were more common. The latter types of fencing could survive in small amounts.

Field Shape, size, etc.

Turn of the century photographs, reprinted in Snyder’s Union County history, suggest a high degree of clearing.⁴⁶

⁴⁴ Morse, *The Country Church in Industrial Zones*, 99, has a photo with a good view of field shape and treeline boundaries.

⁴⁵ *Annual Report* (1877), Pennsylvania State Board of Agriculture, 238.

⁴⁶ Photograph of Mazeppa c. 1907 (Lasansky, *Rural Delivery*, 21), shows small, irregularly shaped fields.

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Columbia County Photo # 30-0101, from Morris Hill, c. 1900. This photo shows the patchwork of small, irregularly shaped fields, demarcated by treelines. Note also the ornamental plantings nearly hiding the house.

Though contour plowing and strip cropping were advocated by county agents during the 1930s, aerial photos from the late 1930s do not show much evidence for either practice. The photo below from Lycoming County is illustrative.

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Image Name: lycoming_090538_aqe_21_65.jpg, 1938 aerial photo near Hughesville, Lycoming County. PennPilot website.

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Woodlots

Small woodlots appear in many photos, usually mixed evergreen and deciduous trees. Overall, most farms had woodlots and in this region more acreage was given over to woodlots than in the Northern Tier.⁴⁷

Orchards

A photo from c. 1915 in Snyder's local history of Union county shows a small orchard in Lewis Township. Virtually every farm would have at least some apple trees. These rarely survive; occasionally remnants are seen.

Fossil Fuel Powered Diversified Production, 1940–1960

During this period, the North and West Branch region agriculture showed continuities with production patterns of the previous period. Poultry production and market vegetable growing expanded; corn and hog production continued, but not as strong; and cattle breeding was a notable, but limited, enterprise. Except for a few places, dairying was not really very important in this region. The shift to combustion power and electrification on the farm was completed in this period, with important consequences. National and global policies and economics forced a decline in farm numbers, with a rise in average farm size. The money economy became dominant in this period, as even in the context of diversification, most products were sold for cash, and the role of neighborly exchanges declined.⁴⁸

Products, 1940-1960

Poultry raising significantly expanded in the postwar period especially in Northumberland and Columbia Counties, where the 1950 per farm average numbers of chickens (231, 170 respectively) was well above the state average (120). Indeed, in this period the main income-producing enterprise was poultry. Columbia County eggs were marketed to the New York City area through the Bradco cooperative.⁴⁹ A description of

⁴⁷ See also in Lasansky, *Rural Delivery*, a photo of the Mifflinburg vicinity, 23. This one is interesting because it seems to show the pattern of crop rotation, with clear coloration differences in each field. A photo of West Milton, 94, does the same; in this one it looks as if hedges divide fields.

⁴⁸ Mary Neth, *Preserving the Family Farm: Women, Community, and the Foundations of Agribusiness in the Midwest, 1900–1940* (Baltimore: Johns Hopkins University Press, 1995).

⁴⁹ Poultry production did not reach the high levels of the state's leading counties such as Chester and York. However, there was enough activity such that it was a mainstay of the farm economy, and its landscape manifestations were everywhere. Therefore, it is important in this region. Information about egg marketing

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a large-scale poultry farm in Snyder County 1946 mentions most of the building types related to poultry in the period. Samuel H. Graybill of Richfield started in 1931 with 150 New Hampshires. He added facilities for housing layers, “for brooding his chicks and for marketing [sic] quality eggs until he now has a flock of about 10,000 layers and is completing housing facilities for about 11,000 birds. His facilities include a two-story brooding house with central heating system, two three-story laying houses, and one large four story laying house – all insulated with shavings. A farm shop with machinery for planing, sawing, and making many things needed about his plant – is a valuable part of the setup. Improved pasture range for pullets is a part of Mr. Graybill’s program. During this development he has been in frequent consultation” with county agent and Pennsylvania State College specialists.⁵⁰

Swine continued to be a more important locally than in other parts of the state; but overall numbers finally declined in the face of competition from an increasingly large scale Midwestern corn and hog industry. Farms in the area continued the pattern of local market production, including especially potatoes destined for the coal regions, and cannery crops – peas, corn, and tomatoes, marketed through the Hillsboro-Queen Anne Cooperative.⁵¹ The average number of milk cows per farm in 1950 was significantly below the statewide average in this area. Certainly some milk was produced (especially in northern Northumberland County), and shipped out to urban markets on the eastern seaboard and in the anthracite region, but dairying did not have the presence it did in other regions such as the Northern Tier.⁵²

Snyder County site # 109-UN-002 is a good example of production patterns in the region for this period. Until about 1950, the farm produced a diversified mix: the four-course rotation of oats, wheat, hay, and corn, plus dairy. In the 1950s, two thousand chickens were kept in the barn’s straw shed and also housed in separate buildings. Then, after 1960, they switched over to soybeans and corn.

is from the Agricultural Extension Archives for Columbia County, Penn State University Special Collections.

⁵⁰ Snyder County Agricultural Extension Agent Narrative Report, 1946 (The Pennsylvania State University Archives).

⁵¹ Walter Jolly Lewis, “An Argument for the Establishment of Extension Service in Montour County” (M.S. thesis, Pennsylvania State College, 1936), Chapter IV.

⁵² Lewis claims that Columbia County was apparently known for “production of dairy cattle for sale to out-of-county buyers” (Lewis, 39). However, no other evidence of this enterprise has been found in research.

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There was some cannery crop production in this region. Though truck specialty farms did not represent a large number of the region's farm, towns like Milton, Sunbury, and Mainville were centers of production, mainly for such items as tomatoes and peas. In the late 1930s, the Snyder County agricultural extension agent reported that there were 22 tomato cannery growers in the eastern part of the county. In 1939 he reported: "about 25 farmers contracted acreage with the Chef Boyardee Company at Milton, and grew tomatoes commercially for the second time."⁵³ Most of the workers in truck patches and canneries were local, but through to the 1970s, Southern African American and Puerto Rican migrant workers came through the region, traveling up Route 15 on the well-established "Florida Itinerary."

Labor and Land Tenure, 1940-1960

Family labor continued to dominate, but the gender division of labor changed. For example, as poultry assumed a more central position vis a vis farm income, men acquired a greater interest in it. Thus the rise of larger scale poultry enterprises (and the standardized agricultural-establishment buildings that came along with it) represent a new gender pattern of labor. Women did not abandon the enterprise overnight, and they never disappeared, but men assumed control.

This period witnessed a decisive surge in farm power away from horses and into the fossil fuel and electric age. In turn, this shift affected farm labor patterns significantly. Scholarship on these technologies in the 20th century rural North suggests that there was a complex interplay in which rural people adopted, adapted, and shaped technology but were also shaped by it. The cultural association of "farm" technology and "productive" work with men intensified, as the tractor and its myriad associated tools mechanized agricultural processes such as plowing, tilling, haying, harvesting, and silo filling. Meanwhile, the agricultural establishment aggressively promoted a "domestic" model of women's work that stressed making farm homes more like urban and suburban ones, and therefore making farm women's work more like urban and suburban middle-class women's work. This strategy de-emphasized women's involvement in "productive" enterprise; farm women struggled with how to embrace aspects of this ideology that may have appealed to them (such as innovations that would allegedly alleviate household

⁵³ Snyder County Agricultural Extension Agent Narrative Report, 1938, 5; 1939, 15 (Pennsylvania State College Agricultural Extension Archives/ The Pennsylvania State University Libraries Archives and Special Collections).

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drudgery), yet to avoid the marginalization implied in distancing themselves from “market” production.

Rural patterns of collective labor also changed in this period. As hand and horsepower were superseded, the family unit assumed more of the burden of farm work, and communally shared labor declined. Wage labor, present since the 19th century, probably became more important. The reach of global markets also meant that items formerly produced at home, often with shared labor, were now purchased. While local and ethnic ties certainly did not die, they were challenged by an assertive popular mass culture. So, work like butchering, apple buttermaking, etc. declined. With them went the specialized outbuildings and spaces related to these activities.

Labor patterns also changed in response to the war years. With the increased demand for farm products, combined with the draft and wartime industries, farm families had to reorganize in order to get the farm work done. The Montour County extension agent mentioned that teenagers redoubled their efforts at harvesting and housework, so their mothers could “work in the field”.⁵⁴

There was a visible increase in production of cannery crops such as peas, corn, and tomatoes. Canneries were located in towns such as Bloomsburg. These crops demanded intensive labor, most of which came from local sources, but some migrant labor was used and a few migrant labor camps were built for them. For example, for the 1952 season, at its peak the labor force in the Milton (Northumberland County) area was 2,715, and there were 825 workers from “Out of State” and 100 from Puerto Rico. These workers were housed in migrant camps numbering about 20.⁵⁵

Buildings, 1940–1960

Many buildings were re-used or adapted during this period. This applies especially to houses, barns, hog houses, smoke houses, and summer kitchens. These buildings continued in use, but few new ones were put up during this time period. What new buildings were erected tended to reflect the predominant tendency of the period, thus we

⁵⁴ Montour County Agricultural Extension Agent Narrative Report, 1941, 8 (Pennsylvania State College Agricultural Extension Archives/ The Pennsylvania State University Libraries Archives and Special Collections).

⁵⁵ *Pennsylvania Farm Placement Program*, Pennsylvania Bureau of Employment Security, 1952, page 1; *Pennsylvania Farm Placement Program*, 1958, map page 19.

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see garages, corncribs, large poultry houses, milk houses, and machine sheds dating from this time.

As new manufacturing processes and materials developed, they affected farm buildings. Manufacturers like the Stran-Steel Corporation advertised farm buildings with all steel components, or hybrids that combined wood and steel.⁵⁶ The Quonset building, made famous during the war, was now marketed for agricultural uses. An April 1957 advertisement in *Farm Journal* featured a happy farmer enthusiastically endorsing his Quonset[®] dairy barn. This building type did not achieve much popularity for animal housing, but fieldwork did document at least one storage building in the survey area. (Site 037-GR-007, Greenwood Township, Columbia County; dates uncertain)

Houses, 1940–1960

Fieldwork sites did not have any single family houses dating from this period.

Migrant housing was built for workers harvesting tomatoes and other crops. No migrant housing was documented in field survey work, but period photos can be found in the *Farm Placement Report*. The 1959 report, for example, featured a photo of “good housing for out-of-area workers in the Central Area” and the 1963 report had a photo of “an award winning camp in Lycoming County.”⁵⁷ Both were long, one-story buildings, one of frame and one of concrete block, built motel-style with multiple doors opening out of the long side.

Barns, 1940–1960

In general, few new barns were built in this region during this time period. A few were found during survey work. They featured new building technologies such as “rainbow” roofs.

⁵⁶ “Pole-Type Buildings ... From STEEL,” *Farm Journal*, October 1957. See also “New Frameless Building,” *Farm Journal*, April 1959: 76.

⁵⁷ *Pennsylvania Farm Placement Program*, 1963, 17.

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One of a very few mid twentieth century barns found in survey work, this barn has a “rainbow” or “gothic” roof, banked construction, hay door on the bankside, and star decoration in the gable end. 037-NC-005-01 Barn, looking E-SE.

In general, rather than build new barns, farm families altered existing ones. So, we find barns adapted for poultry or dairy, used increasingly for machinery storage also.

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037-LO-003-02. Barn, looking north. This older three-gable barn was adapted for poultry.



Dairy alterations do appear. Site # GR- 002 in Columbia County (left) shows how the straw shed was enclosed with concrete block for dairy cows. On interiors, the lower levels were concreted and fitted with stanchions. Ventilation was often added. However, as a rule, dairying was not pervasive in the North and West Branch region.

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Milk Houses, 1940–1960



As in the previous period, quite a few farms in this region had milk houses but not always an extant silo. This suggests that farms had very small dairy operations. Above is Snyder County site 109-MI-001, showing concrete block milk house and concrete stave silo.

Poultry Houses, 1940–1960

General Developments in Poultry Housing:

In general, poultry housing in the twentieth century responded more and more to developments initiated by the agricultural establishment, whether the extension system, agricultural research universities, or agribusinesses marketing mass-produced equipment. For example, home-scale incubators and “brooder stoves” were advertised and illustrated in the farm press in the 1920s. The incubators were heated box like affairs mounted on legs. The brooder stoves had a central heat source (sometimes an oil burner) which warmed a protective, usually conical hood under which the chicks could huddle. It is not clear where these devices would be set up, but advertisements usually featured women making testimonials, which suggests that this equipment might be set up near or possibly even within the farmhouse.⁵⁸

⁵⁸ For illustrations, see advertisements, *Farm Journal*, March 1922 and January 1922.

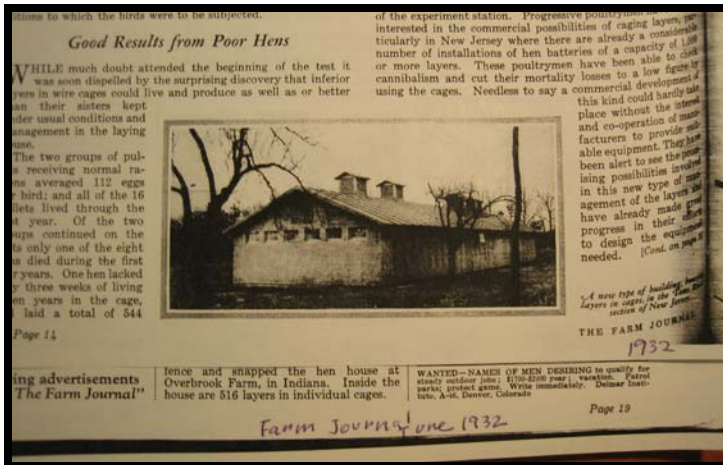
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By the 1930s, “battery” brooders were appearing where larger numbers (over 500) of chicks were raised. These consisted of stacked cages with “wire-mesh floors with dropping-pans underneath and water- and feed-hoppers on the outside.”⁵⁹ Proponents claimed many advantages over the traditional brooder house, especially lower cost of building, the ability to keep many more birds in a smaller space, and lower labor costs.⁶⁰ Notably, one author pointed out that “battery brooding will produce good birds without much experience on the part of the operator...”⁶¹ The shift to less-skilled labor probably occurred as men took over poultry raising, and also as sheer numbers rose. The buildings in which batteries were housed often were indistinguishable from other types of poultry houses; but some purpose-built battery houses were built which were characterized by high windows around the perimeter walls. These permitted batteries to be ranged along the walls, and light to enter from above. No field examples of this type were encountered in this study.



Battery House, illustrated
in *Farm Journal*, June
1932, p. 14

⁵⁹ For illustrations, see advertisements, *Farm Journal*, March 1922 and January 1922.
⁵⁹ C. S. Platt, “Battery Brooding,” *Farm Journal*, January 1930: 22.
⁶⁰ D. Kennard, “A New Deal for Chickens,” *Farm Journal*, July 1933, p 5.
⁶¹ Platt, “Battery Brooding.”

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Battery House interior,
Farm Journal, June 1932, p.
14.

The “battery” philosophy soon extended beyond chicks to adult birds. Articles began to appear advocating batteries not only for brooders and layers, but also for broilers. By the 1930s, the free range philosophy was in decline among the agricultural establishment (i.e. in the farm press, among extension agents, and with agribusiness), though on many a farm range practices continued. *Farm Journal* poultry editor D. C. Kennard wrote in 1932, “Today the pendulum is swinging toward confinement.” Agricultural experiment station testing in Ohio and other states established that confined birds actually did better than those who were raised partly or wholly on free range. An important nutritional discovery -- that cod-liver oil added to the birds’ diet helped chicks thrive indoors -- spurred a “revolution in hen-coops.” With yards no longer emphasized and numbers of birds rising, multi story laying houses began to appear, and the new philosophy also

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encouraged renovations to large barns for poultry.⁶² These barn renovations did not necessarily always contain battery cages, but they did illustrate the abandonment of free-range practices.

By the 1950s, the battery technique was modified, because cages stacked above one another had resulted in ventilation and disease problems. Among large producers, cages were retained, but in single rows suspended above a concrete floor, often in a long, low building. Waste pits reduced disease and cleanup problems. Novel construction techniques such as trussed rafters and sheet-metal construction minimized the number of posts and thus created an open, flexible space. Farm magazines also advertised manufactured poultry housing, including conventional shed- or gable roof structures, but also pointed-arch houses. Prefabricated poultry houses were also discussed in the farm press. It is not possible at this time to determine how many farmers in the region took advantage of these technologies.⁶³ Many continued on a more modest scale and their buildings were correspondingly modest.

⁶² C. S. Platt, "Four Weeks in Batteries," *Farm Journal*, December 1930, 11; on continuation of free range practice, see ads in *Farm Journal*, September 1951, 92; D. C. Kennard, "Revolution in Hen-Coops," *Farm Journal*, March 1932, 14; Nathan Koenig, "Henhouses from Left-Overs," *Farm Journal*, June 1930, pp 31-32. On new construction techniques, almost any issue of *Farm Journal* for 1958 and 1959 contains ads illustrating them. See also "New pre-fab poultry houses," buildings column, *Farm Journal*, May 1957.

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Ralston-Purina advertisement, *Farm Journal*, 1958. This illustration shows a “cage egg factory.” Note the long, low housing.

Poultry Housing in the North and West Branch:

Poultry houses were very important in the North and West Branch area for this period. Because of local markets and Depression conditions, poultry continued to hold a strong place in the agricultural economy. In Pennsylvania generally, the influence of Penn State Extension and other elements of the agricultural establishment was notable. Even if farmers did not adopt recommended plans down to the last detail, they used standardized materials and followed a few basic layouts, so there are fewer regional differences in the appearances of poultry houses.

As poultry keeping assumed a strong place among North and West Branch farm income producers, it attracted attention from men, most noticeably agricultural extension agents. (Men also became more involved in poultry production on the farm, though poultry labor did not shift over completely to men. The agricultural extension agent reports refer to “poultrymen,” but the photographs in their collections always show women at program events featuring poultry.) The chief result on the landscape was the appearance of more

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poultry housing, often patterned on advice from agricultural extension agents or in farm publications (though many a poultry house was recycled from an existing building. Telltale signs include many windows that clearly are cut into a formerly solid wall.)



097-LM-002-03. Barn gable. Lower Mahanoy Township, Northumberland County. An extreme example of converting a barn to poultry use.

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097-LM-003-12. Pole barn showing nesting boxes. Lower Mahanoy Township, Northumberland County

The type of housing depended on the purpose. Brooder houses were small structures for hatching chicks; they were often heated by stove, (therefore usually a stovepipe protruding from the center of the roof). These buildings provided a heated space for just-hatched chicks for their first few weeks of life.

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037-LO-002. Brooder House, Locust Township, Columbia County. This building has characteristic features: small size-- too small to be a summer kitchen--, windows, chimney, and siting close to the house.

When hens reached laying age, laying houses provided roosting perches, open floor space, feed areas, and nesting boxes (individual wall nests, community nests, or nest rooms). The buildings were usually well lighted and ventilated. Depending on the scale of poultry raising, they could be one story, or more. If barns were converted for poultry, it was not unusual to find five or six tiers.⁶⁴ Overall, the poultry houses of this period have these frequently seen common features: shed form; banks of windows; frame construction. Snyder County 1930s agricultural extension reports note 30 by 30 foot laying houses in quite a few places.

⁶⁴ The ag extension publications before 1950 do not seem to differentiate between houses for layers and broilers. The only difference that is mentioned (in Extension Circular # 358, 1950) is that a house of a given size can always accommodate more broilers/fryers than egg layers, presumably because less space is given over to nesting boxes and the like.

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037-LO-006. Two poultry houses in Locust Township, Columbia County

Setups for producing eggs for hatching differed yet again – these were geared to breeding pullets and feeding them up so they would produce healthy hatchable eggs, then selling the fertile eggs to hatcheries, which then hatched them to sell to poultry people.⁶⁵



Hatchery on Hatchery Road, Lower Mahanoy Township, Northumberland County

⁶⁵ See Circular # 361, 1950. This shows the pullets who will lay these eggs on a free range in which they are let out on Ladino or clover range, and have low gable-roof shelters and open air nesting boxes.

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097-LM-005. Lower Mahanoy Township, Northumberland County. This disused metal poultry house dates to 1967, outside the period, but close enough to serve as an illustration.

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Corncrib, 1940–1960



Columbia County, Greenwood Township # 001, corncrib



Columbia County, Greenwood Twp, #004

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Meisertown, Snyder
County, cylindrical
corn cribs

Manufactured corn cribs were produced in the early twentieth century, but disappeared during the metal shortages of World War II. They became popular again in the post-World War II period. Historian Keith Roe⁶⁶ says that metal cribs were adopted because wood and labor prices rose, and also because the metal cribs were sturdy and required little maintenance. Two trends combined to make corncribs less common after the mid-1950s: combines made it possible to shell corn in the field; artificial dryers eliminated the need for a long drying period in the crib; and it was often cheaper to purchase Midwestern corn rather than grow it on the farm.

Machine Sheds, 1940-1960

Machine sheds served the same function they had earlier. In some cases, as machines got bigger, older sheds could not accommodate them. One 1957 *Farm Journal* article featured a building with sliding doors along the eaves side, and “giraffe” door on the end

⁶⁶ Roe, 64. However, fieldwork suggests that people still built new corn cribs right into the 1970s and 1980s.

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for taller equipment.⁶⁷ Postwar machine sheds frequently featured pole construction and newer construction materials such as metal components.



Machine shed-
corn crib, Lower
Mahanoy
Township
Northumberland
County, site #
097-LM-004-14



093-LI-002-13.
Machine shed.
Liberty Township,
Montour County.
This shed shows
pole construction
and corrugated
metal sheet walls.
No date.

⁶⁷ B. G. Perkins, "New—A Shed for 4-Row equipment," *Farm Journal*, April 1957: 90.

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Garage, 1940–1960

As the motor vehicle revolution came to the farm, so did the garage. Farm garages appeared in the early twentieth century. They were typically rectangular buildings, made of wood or concrete: rock face block, beveled block, or cinder block. They would have large doors (sliding or hinged) on either eaves or gable side; sometimes a human door. Gable roofs were the most common, though some have hipped, pyramidal, or gambrel roofs. Garages have no ethnic association. They are a product of the twentieth century. While perhaps their designs do not show so much standardization as the agricultural establishment-derived poultry houses or milk houses of the era, nonetheless the building materials (not to mention the automobiles and trucks that the buildings sheltered) do show the impact of industrialization. Garages were usually sited near the farmhouse, accessed by a driveway or directly from the road.



037-LO-003. Garage and poultry house combination. Locust Township, Columbia County

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Garage, North Centre Township, Columbia County.

Potato Storage House, 1920–1960

The Union County agricultural extension agent reported in 1928 that, “Mr. J.L. Reitz, who is one of the largest potato growers in the state, has recently constructed the largest storage house in PA. Its capacity is approximately 50,000 bushels.” It seems that Mr. Reitz’s operation was an anomaly within this region, as little other evidence of extensive potato raising has been found in research.

Other outbuildings, 1940–1960

The smokehouses, butcher houses, bake houses, privies, spring houses, summer kitchens erected earlier gradually fell into disuse during this period, or they were put to different

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uses. Electrification eliminated much of the need for spring houses, summer kitchens, and bake ovens. Some people continued to butcher and smoke their own meat, but many discontinued raising their own hogs. And the advent of indoor plumbing meant that the privy also was no longer “necessary.”

Landscape features, 1940–1960

In the post war period many important landscape features continued to mark the region. These would include the hierarchy of fencing; ornamental plantings around the farmhouse; relationship of buildings to each other. There were some significant landscape changes, though they took effect gradually. These were principally in the addition of farm ponds; changes in field configuration, such as contour stripping; upgrading of roads; and possibly the decline of farm orchards.

Fields:

Small, square-ish fields continued. Contour plowing and strip cropping became more common. The *Farm Journal* in August 1935 defined strip cropping as “ a form of contour farming in which strips of densely-growing, erosion-resistant crops, such as alfalfa, lespedeza, sweet clover, Sudan grass, timothy, and the small grains, are alternated across the slop with strips of cultivated row crops. The strips of erosion-resistant crops check the speed of the runoff, filter out the soil being carried by the water, and cause the land to absorb moisture.”⁶⁸ The article also noted that strips demanded less labor than square fields and “permit more efficient use of machinery.” They also fit well with terraces. The Union County agent summarized the local situation in 1939. Erosion had become an increasing problem in Union County, he reported, “partly due to the change in farming over past 15 or 20 yrs. Tractors allow farmers to work land in larger fields, many times without regard to how land lies. Also, dairy farming means pasturing the herd on meadows after the hay has been removed, leaving very little plant material to be plowed down.” He and other extension agents in the region pushed contour plowing and strip cropping. Farmers did begin to adopt the practice in this period.

Contour plowing’s impact was to replace those small, irregular square-ish fields with long, carefully plotted, undulating strips. The principle is to control soil erosion on sloping surfaces by plowing along contour lines; and by planting strips of crops that alternately absorb runoff and let it pass through. Some fencing and treelines were

⁶⁸ “Crazy Patch Fields,” Ivy M. Howard, *Farm Journal*, August 1935, 26.

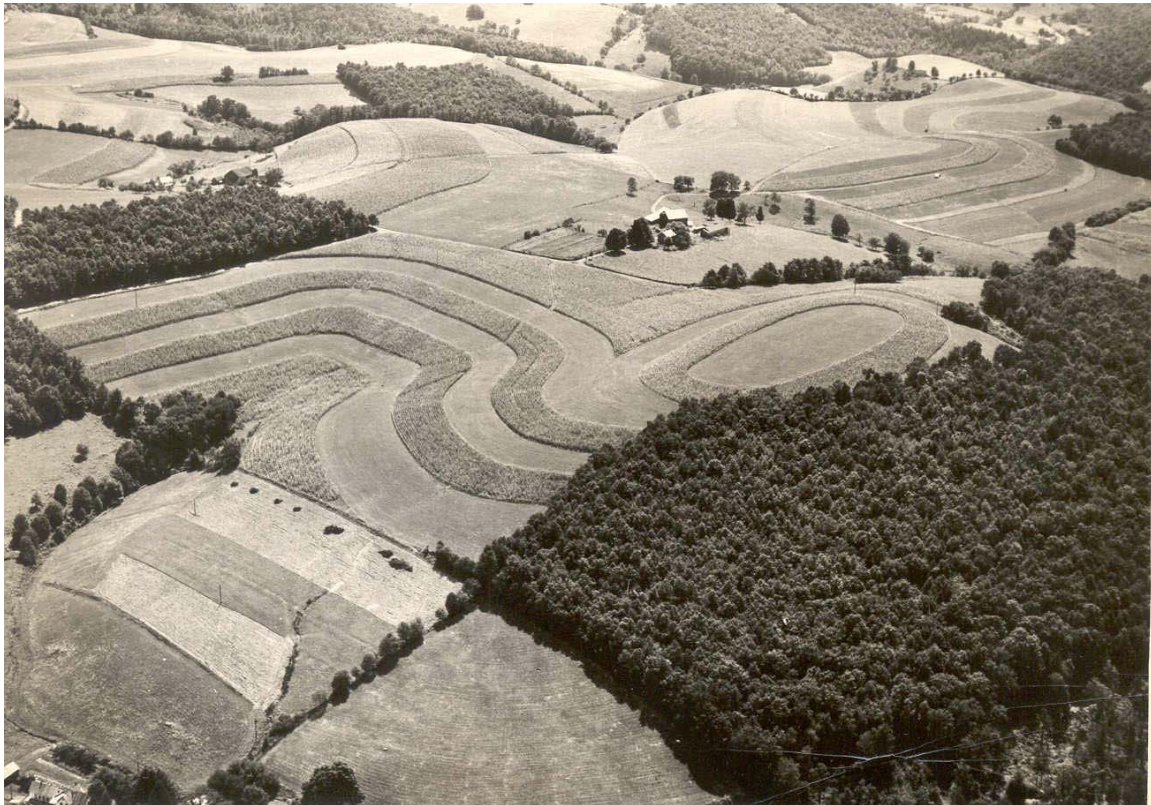
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eliminated. Shifting rotations probably compounded this effect, because when the traditional four-year rotation was replaced with more limited two-crop sequences, there was less need for multiple small fields and so large, long contour strips could be more easily installed.



Aerial view, Burt DeWald Farm, Lycoming County, about 1950. Lycoming County Agricultural Extension Archives, Hughesville, PA. This photo nicely shows windbreaks, ornamental trees, and woodlots also.

The rise of strip cropping and contour plowing is mainly a post-1940 phenomenon in the North and West Branch. The comparison below is revealing.

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Penn Pilot 1994 aerial accessed 6/21/06, site 037-GR-001, Greenwood Twp Columbia County

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Penn Pilot 1938 aerial accessed 6/21/06, site 037-GR-001, Greenwood Twp Columbia County

Even a cursory comparison of these two images reveals that contour plowing and strip cropping entered the farming repertoire in a big way since the 1938 aerial photo was taken. Field consolidation is visible and individual sentinel trees are almost all gone, yet the continuities are also evident.

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Woodlots:

The Union County agricultural extension reports for 1932 have photos of a “locust and Red Pine Strip Planted 1932 to control Hillside Washing”; and also of a grove of pines planted for Christmas trees and timber in 1926.

Fencing:

Where fencing was still needed, wood-and-wire was the general choice. Woven wire or barbed wire were the two main types. Barbed wire was cheaper, but more dangerous; woven wire gradually supplanted barbed wire, especially where hogs were raised. Sometimes a woven wire fence had one strand of barbed wire on the top.⁶⁹



109-CH-001-02. Landscape SE, looking E-NE.

This photo shows woven wire fencing; treelines and ditches defining fields.

⁶⁹ Eugene Cotton Mather and John Fraser Hart, “Fences and Farms,” *Geographical Review* 22, No. 2 (April 1954): 201–223.

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Columbia County Photo # 09-0113. Columbia County Historical Society. North side, Huntingdon Mountain from Fleckenstin's Grove, c. 1940, shows small, scattered woodlots, barbed wire fencing, contour stripping, and treelines defining some field borders.

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Pond:

As elsewhere in the state, ponds were popular in the postwar period, owing to rising farm values (hence a greater need for fire protection), and the greater accessibility of earth moving equipment.



Farm Pond, James
Nicholson Farm, Lycoming
County, c. 1950.
Lycoming County
Agricultural Extension
Archives.



109-UN-003-05. Barn & buildings, pond, looking SW.
The pond is visible in the foreground.

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Roads:

During this period, the percentage of paved and widened roads increased.

Utility Poles: As the rural areas in the state became more completely electrified, utility poles became a more standard landscape feature.

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