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Agricultural Resources of Pennsylvania, c1700-1960
II. Agriculture in the Settlement Period, c1700-1840

NOTE: Before reading this narrative please read the Introduction and User's Guide to the MPDF, particularly the section "Conceptualization (Historical Farming Systems and Historic Agricultural Regions)."

II. Agriculture in the Settlement Period c1700-c1840

Location

In the southeastern counties, the settlement period began with the Commonwealth's founding in 1682. The settlement process was uneven, but was completed in most places by the late 18th century. Outside the southeastern counties, there were settlers throughout the state by the late 18th century but settlement did not begin in earnest until well after the Revolutionary War and lasted to about 1840. During the settlement process, agriculture and rural life shared some important characteristics in common. This is because everyone was engaged in the same basic processes of occupying the land and clearing it. The processes resulted in such products as logs, potash, maple sugar, cash grains, and whiskey, sent to market on rudimentary transport routes. Small herds and harvests met local and family needs. Buildings were basic; the 1798 Direct Tax shows that most rural people lived in small log houses and often lacked barns or other farm outbuildings. Thus even though soils, topography, climate, and population characteristics varied considerably, they did not yet wield the influence that they would later exert. Hints of later differentiation were present, to be sure; but overall, the agriculture and landscape had a degree of consistency deriving from its rudimentary nature.

Climate, Soils, and Topography

Pennsylvania climate, soils, and topography vary considerably. The longest growing seasons occur at opposite ends, in the extreme northwest and southeast. Precipitation averages around 41.2 inches per year.¹ Major physiographic regions include the Piedmont, the Lancaster Plain, the Great Valley, the Ridge and Valley, and the Allegheny Plateau.

Early agriculture in the settlement period

Formal "purchase" from the native Americans occurred in 1682-4, followed by additional acquisitions in 1732 (in what are now Berks and Lehigh Counties); 1736 (the Great Valley region); 1737 (Northampton and Pike counties); 1749 (Schuylkill, northern Dauphin region); 1754 (south central); 1768 (a swath stretching from the northeast to the southwest; and in 1784 in the northwestern quarter of the state (the "Last Purchase"), which included counties from Tioga westward. One last sliver, in present day Erie County, was added in 1792. However, those dates do not indicate effective settlement. The French and Indian Wars and then the War for Independence, followed by uncertainty

¹ E. Willard Miller, ed., *A Geography of Pennsylvania* (University Park, PA, 1995), 47.

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in the early years of the Republic, retarded settlement. After independence, the commonwealth acquired land that formerly had belonged to the Penn family. The state passed a flawed land law in 1792, and thereafter land transfer was a messy business for years. Land speculators like the Holland Land Company, North American Land Company, and Pennsylvania Population Company took advantage of loopholes to temporarily engross huge tracts, especially in northern Pennsylvania.² As a result of these chaotic land policies, squatters predominated in many areas, and only with time were titles sorted out. In most of the state, then, the process of occupying the land and making farms was thus a drawn-out one lasting at least a generation.

A few Dutch and Swedes drifted into the Delaware Valley before 1682, but English control was assured after 1674. By 1730, Europeans had moved into the present day counties of Bucks, Chester, Lancaster, Delaware, and Philadelphia; but population densities were very low, less than 19 persons per square mile. The line of settlement moved out to encompass present day Northampton, Lehigh, York, Cumberland, Adams, and Franklin Counties by 1760, and densities also increased. By 1790 Euro-American settlement was moving into the North and West Branch of the Susquehanna, in some of the central limestone valleys, and in the southwest. The line of settlement (moving from the southeast) did not even reach the present Tioga, Potter, Lycoming, Sullivan, and Luzerne Counties.³ The *Concise Historical Atlas of Pennsylvania* shows most of the state as "settled" by 1820, but population density was still under twenty persons per square mile in all but the southeast, south central, and southwest counties. It was not until after 1850 that the entire state was fully settled.

Settlers in southeastern Pennsylvania came mainly from the British Isles and from German-speaking Europe. Their progeny migrated westward along the Great Valley corridor and up through the river valleys. Settlers came in to the Northern Tier counties after border disputes between Pennsylvania and Connecticut were resolved. These settlers were "Yankee/Yorkers", either coming from New England directly, or by way of upstate New York. Meanwhile, people came into the southwest from Virginia, Maryland, and eastern Pennsylvania. By 1790, the most populated counties outside of Philadelphia had between 25,000 and 37,000 inhabitants apiece.⁴

² Sherman Day, *Historical Collections of Pennsylvania*, 1843, 620-621, mentions that Robert Rose at one point controlled 100,000 acres in what is now Susquehanna County.

³ Edward Muller, ed., *Concise Historical Atlas of Pennsylvania* (Philadelphia: Temple University Press, 1989), maps pp 86 and 83.

⁴ Historical Census Browser, <http://fisher.lib.virginia.edu/collections/stats/histcensus/>

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Even in the southeast, these populations did not offer much in the way of markets for agricultural productions. It is commonly thought that, lacking local markets, farm families were forced into self-sufficiency. This stereotype is erroneous.⁵ Almost no farm was self-sufficient (ie raised or processed everything it needed on the farm). Rather, farming families followed a diverse set of strategies to obtain their necessities and amenities. They circulated and exchanged goods, services, labor, and products locally, making up with exchange what they lacked on individual farms. And, they sent goods to distant markets, engaging in wider exchange networks that brought them, with other areas of the American back-country, into close contact with global marketplaces. Indeed they were participants in the “consumer revolution” of the period.⁶ Economic historian Diane Lindstrom estimates that at least a quarter of Philadelphia’s intake from its “hinterland” in 1810 were destined for overseas markets; coastal trade and the city itself accounted for the remainder. During the years of the Napoleonic Wars, demand from Europe burgeoned, and American farm families responded quickly.⁷

Families showed remarkable energy in managing to market so many goods despite challenges. Functional roads were few in the late 18th century, except for the xxx Pike, finished in 1794 and connecting Lancaster to Philadelphia. An otherwise rudimentary network of roads connected Philadelphia to Reading, York, Carlisle, Harrisburg, Chambersburg, and points north. Other roads skirted the Susquehanna River and penetrated the interior. In the southwest, roads connected Pittsburgh to Greensburg, Uniontown, Bedford, and Washington. By about 1830, turnpike roads extended to Easton from state line; between Sunbury and Philadelphia; and between Bellefonte and Lancaster, thence to Philadelphia. Turnpikes also connected the northwest to Pittsburgh and the central counties. Minor north-south and east-west roads crossed most Northern Tier counties by the 1830s, and the central counties were traversed by roads such as the one along the route of present SR 45. Few of these roads sufficed for year-round long-distance shipping, though, and transport was still highly seasonal; at high water times in the spring, hundreds of arks set out from upriver towns such as Catawissa⁸, bound down the Susquehanna or the Allegheny for points along the river where they could be

⁵ Bettye Hobbs Pruitt, “Self-Sufficiency and the Agricultural Economy of 18th-Century Massachusetts,” *William and Mary Quarterly* 3rd ser. 41 (July 1984): 333-364; Carole Shammass, “How Self-Sufficient Was Early America?,” *Journal of Interdisciplinary History*, Vol. 13, No. 2. (Autumn, 1982), pp. 247-272.

⁶ Elizabeth Perkins, “The Consumer Frontier: Household Consumption in Early Kentucky,” *Journal of American History* September 1991: 486-510; Richard Bushman, *The Refinement of America* (1982).

⁷ Diane Lindstrom, *Economic Development in the Philadelphia region, 1810–1850*. New York: Columbia University Press, 1978.

⁸ *Hazard’s Register* 15: July 1829. Edwin M. Barton, *History of Columbia County* (Columbia County Historical Society, 1958), p 45, quotes a Danville newspaper of 1824 records that 100k bushels wheat, 3000 bushels clover seed, 3000 barrels whiskey, 250 tons of pork were sent downriver by arks and rafts.

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transferred to more improved roads and then moved out to the coast. Thus into the 1830s, for most of the state agricultural productions that were destined for outside markets had to be suited to traveling far—as far as Atlantic ports, usually Baltimore, but sometimes Philadelphia or New York—under poor conditions.

Products

Small populations, recently settled and somewhat isolated, were able only to conduct farming on a relatively small scale. True, the average farm size was over 100 acres in many instances, but the actual amount of *improved* acreage was far less, since clearing was still underway even at mid-century. (In Columbia County, for instance, the average farm had more unimproved acres than improved even in 1850.) As a rule, the small numbers of hogs and cattle ran free, and were captured at butchering time. Small crops and free-ranging livestock translated into modest building requirements.

Census data are not available from this period, but travel accounts, gazetteers, tax records, and other sources describe agricultural output for settlement-era Pennsylvania in remarkably consistent terms. High-value, relatively compact and less perishable items fit the bill: potash, wheat, maple sugar, whiskey, cider, clover seed, flax seed, salted meat (especially pork), and the like. Geographer Thomas Gordon reported in 1832 that “the staples of the county (Bradford) are grain, flour, whiskey, fruit, salted provisions, livestock, and lumber, and when they can be transported to market at a saving price, iron and coal may be added to the number.”⁹ His description of Columbia County was similar: “The exports of the county are estimated at 120,000 bushels of wheat, 4,000 bushels of clover seed, 3,000 barrels whiskey, 300 tons of pork, and a small amount of lumber, some live stock, and some iron castings.”¹⁰ The famous commentator Hector St Jean de Crèvecoeur, in his travels, reported that many people gathered ginseng – a highly sought after medicinal root for the China market.¹¹ Animals were driven out on the hoof. This practice eliminated the need for costly winter feeding and shelter, and also reflected the lack of fast, refrigerated transportation. One local history from Harford, Susquehanna County, noted that in the early 19th century “droves of cattle, sheep, and sometimes turkeys were common sights.”¹² Small villages, like Boalsburg in Centre County, supplied pasturage for droves and tavern accommodations for the drovers. These items

⁹ Thomas Gordon, *Gazetteer of the state of Pennsylvania*, 1832, p. 61. See also de la Rouchefoucauld, 1795, quoted in *The Settler*, volume III No. 1, February 1955, p. 30-31.

¹⁰ *Ibid*, p. 112-113.

¹¹ Crèvecoeur, St. John de (J. Hector). *Journey into Northern Pennsylvania and the State of New York*. Translated by Clarissa Spencer Bostelmann. Ann Arbor: University of Michigan Press, 1964. Original published 1800, p 182, mentions ginseng.

¹² *Harford Township Susquehanna County Pennsylvania 1790-1940*, p. 348. See also C. B. Johnson, *Letters from the British Settlement in Pennsylvania* (1819), pp. 76-79.

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were function of the process of farm-making and settlement then taking place throughout this part of the state.

Other parts of Pennsylvania, such as Somerset County, also had the natural conditions where ginseng would grow, and gathering was an important part of woodland economic strategies there in the late 18th and early 19th centuries too. Everywhere, trees had to be felled and lumber or potash produced; grain converted to the more valuable, more easily moved form of whiskey; animals driven out live; and so on. Erie County residents in the early 19th century, for example, grew timothy and clover hay and raised stock for shipment east. Crawford County farmers allowed razorback hogs to graze in the forests, then drove them out to Pittsburgh and Philadelphia in the fall and winter. Lawrence County had numerous distilleries in its early days.¹³

Products marketed to distant places made up part of a broader strategy which stressed a diverse mix of products suitable for multiple uses. Most products that could be shipped out could also be consumed at home. Supplementing these in the array were other items that usually couldn't travel for long distances: corn (because of its bulk relative to value), fresh meats (beef, pork), poultry products, garden vegetables, and fresh orchard products. Animals fed on corn, oats, and hay. By-products such as straw also served important purposes on the farm. Gathered nuts and berries supplemented the family diet. A sampling of items appearing in individual farm family records gives a sense of the diversity. In Union County's Buffalo Township, one farm couple in 1815-30 mentioned butter, bacon, eggs, oats, buckwheat, flax, and clover seed; wool, cheese, vinegar, soap fat, meat; cider, apples, rye, corn, wheat, beef, pork; and cordwood. Centre County landlord Andrew Gregg's accounts from 1814 to the 1820s mention meat, potatoes, buckwheat, wool, maple sugar, and oats.¹⁴

Labor and Land Tenure

Almost everything circulated in local exchange networks of which labor was an integral element. The word "exchange" is used deliberately here (rather than "market"), because little if any cash circulated in early rural America. Rather, farming families traded around goods, labor, and services in their neighborhoods. Just about every household except the very wealthiest lacked something essential; for example, even as late as 1850, only 56% of Susquehanna County farms listed in the manuscript census claimed horses. Neighborhood exchange networks compensated for gaps; for example, people with draft

¹³ Samuel R. Brown, *The Western Gazetteer* (Auburn, NY, 1817), 336.; *History of Crawford County Pennsylvania* (Chicago, 1885), 240; Samuel W. Durant, *History of Lawrence County, Pennsylvania* (1877), 92

¹⁴ Charles Snyder, *Union County, Pennsylvania, a Celebration of History* (200), p. 37. Andrew Gregg Account Books, PSU Special Collections.

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animals would share them around in exchange for goods or labor. Everybody kept careful accounts, valuing these exchanges with currency figures, even if actual cash did not change hands. After a period of time (sometimes years), accounts were “settled” and the whole process began anew.

The goals, aspirations, and tactics of rural families are nicely captured by the word “competency.” The term allows us to avoid focusing on the sterile distinction between “subsistence” and “commercial” activities – since *all* farms produced for market, household consumption, and local exchange. As there was no hard and fast division between “market” and “subsistence” products, neither was there a sharp distinction between “farm” work and “house” work. The phrase “competency” was an elastic concept; one person’s “competency” might be another’s poverty. Webster’s Dictionary in the early 19th century defined it as “property or means of subsistence sufficient to furnish the necessaries and conveniences of life, without superfluity.” Generally, the term connoted a comfortable, propertied (eg landowning) independence. This “independence” was collective, not individual; it referred to male-headed households and obscured internal power disparities based on age and gender, and as we have seen, it did not necessarily imply self-sufficiency. Despite its inequities, the idea of “competency” attached value to every household member’s contribution, because autonomy was achieved through the varied strategies of self-provisioning, market sale, and local exchange that have just been described. Because the concept was so elastic, it could expand along with opportunities: succeeding generations, for example, would pursue their “competency” through an altered balance between market sales and self-provisioning. Definitions of “comfort,” of course, also changed over time, so one generation’s luxury became their children’s necessity. Still, even in all its protean forms, “competency” well describes the ethos of rural Pennsylvania deep into the 19th century.

A “competency” was achieved through collective labor. Family and neighborhood labor dominated during this period. Men, women, and children all contributed work toward the family sustenance; there was a gender division of labor, but it was flexible. Men usually worked at lumbering, clearing land, building fence, and raising field crops, while women and children tended livestock, made dairy products, and preserved food. But diarist Philip Fithian travelled in Lycoming County in the late 18th century and reported seeing even elite daughters milking and reaping, and George Dunkleberger, in his *Story of Snyder County*, claimed that “many of the women were as skilled with the sickle as were the men.”¹⁵ A history of Lycoming County remarked that during the early days “It was a

¹⁵ Wolf, George D. *The Fair Play Settlers of the West Branch Valley, 1769-1784: A study in Frontier Ethnography* (Harrisburg: Pennsylvania Historical and Museum Commission, 1969), p 53; George

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common occurrence for a woman to walk fifteen miles or more, a great homemade basket filled with butter, eggs, and farm produce balanced on her head.”¹⁶ Everyone participated in maple sugaring and often in haying and harvesting too. “Bees” for sugaring, house raising, husking, and other jobs made work a social event.

An August 25, 1830 letter by Sally Monro of Sylvania, Bradford County, to her brother back in Bristol, Rhode Island, paints a portrait of a well-off, well-settled farm family:

I will tell you a little about our domestic affairs. We have rept 1475 sheaves of wheat, ten acres of rye that is pretty good. We have about four acres of corn which they say is the stoutest in the town. The summer has been very warm and our hay has come in very stout.

We have plenty of potatoes and all kinds of garden vegetables. They say we have more apples than any other farm in town. The orchard stand on high ground and the frost did not hurt it. I have plenty of sweet apples to bake and sour apples for pies which are already ripe.

We have 22 peach trees in the garden and some peaches.¹⁷ We have six cows and I have made cheese all summer weighing from 10-20 pounds. Cheese is 6-7 cents we sheared 82 sheep. Wool is 37 ½ cents a pound.¹⁸

We have three pair of cattle (oxen), the same horses we brought from Rhode Island and one colt about three months old. We have 14 geese, nine turkeys and between 30-40 hens and chick and six ... hogs.

Tell Aunt Patty that I heat the oven nearly every day since I came here.¹⁹

Monro may have been embellishing her new life for the benefit of her audience back in New England; it seems a stretch that peach trees would thrive in her locale. But even if we assume a little hyperbole, her description amply demonstrates that inter-connected

Dunkelberger, *The story of Snyder County from its earliest times to the present day* (Snyder County Historical Society, 1948), p. 299.

¹⁶ 1939 *Picture of Lycoming County*. Pa Writers' Project of the WPA, supervised by Frank H. Painter, 67.

¹⁷ Munro was likely being optimistic about peaches; they did not usually do well in this climate.

¹⁸ Cheese could have been produced from sheep's milk, but there is no evidence that this occurred in Pennsylvania at the time.

¹⁹This was posted on the Tri-Counties Genealogy & History Sites of Joyce M. Tice, <http://www.rootsweb.com/~pabradfo/mornings.htm>, accessed June 2005.

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family labor predominated in this period. Moreover, she shows a lively interest in market prices, reinforcing the point that “market” work was not always associated with men.

During this sorting-out period, land tenure practices were very uneven. Tenancy emerged in the southeast quite early. Throughout the state there were places where a few large landowners held parcels amounting to thousands of acres,²⁰ and tried to rent land out to tenants rather than sell it in fee simple. The chaotic state of land law also impeded the transition to fee-simple family ownership.²¹ In the southwest, tenancy was also a factor from the beginning. In the central limestone valleys, early agreements tended to be between large landowners (such as Phillip Benner, General James Potter, Samuel Miles, etc.) and numerous, unrelated tenants, and they stressed clearing and farm-making.²² A seven-year agreement made in 1822 between Centre County landlord Phillip Benner and William Brower specified merely that the tenant would clear land and erect buildings, rather than pay any kind of rent. Andrew Gregg's accounts (also from Centre County) show that his tenants paid rent in the form of part of their crops, usually in wheat or maple sugar. Terms of rental often were for several years, and Gregg's records show that tenants were not always able to pay on time each year. Tenants were often responsible for supplying tools, fencing in land, etc. Over time, however, the trend was toward smaller holdings (100-300 acres) and dispersed landownership.

Buildings and Landscapes

The economic and social conditions that were shared during the settlement process, regardless of the precise time period, gave rise to a corresponding degree of landscape consistency. The building stock was limited. Houses typically were small and built of log. They might occasionally betray ethnic influences or architectural pretenses, but more often they were single-story, one- or two- room “cabins” that by necessity projected

²⁰ Lucy Simler, “Tenancy in Colonial Pennsylvania: the Case of Chester County.” *William and Mary Quarterly* 3d ser., 43, no. 4 (October, 1986): 542–569;

See Sherman Day, *Historical Collections of Pennsylvania*, 1843, p 620-21. *Letters from the British Settlement in PA*, 1819, puffs the area but should be heavily discounted because of its promotional intent. Robert Rose, for whom Montrose is named, owned a lot of acreage in the early days; but his paternalistic vision failed, and eventually the land was sold off in small parcels. In Centre County, Samuel Miles and General Potter owned large acreages, but those “manors” were broken up by the mid-19th century.

²¹ An 1808 tax list on the Northumberland County GenWeb site implies that many if not most of taxables were tenants. <ftp://ftp.rootsweb.com/pub/usgenweb/pa/northumberland/taxlists/1808miff.txt>, accessed June 2, 2004.

²² Lee Soltow and Kenneth Keller, “Tenancy and Asset-Holding in Late 18th -Century Washington county, Pennsylvania,” *Western Pennsylvania Historical Magazine*, January 1982, 1-17; Phillip Benner Papers, PSU Special Collections, 1822; Andrew Gregg papers, PSU Special Collections; John B. Linn Family Papers, PSU Special Collections, agreement between John Smyth and James Hayes, September 1846; Irvine Family Papers, PSU Special Collections, Letters # 15 and 16.

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a generic appearance. Farms had few outbuildings. Springhouses, stables, corn cribs, and perhaps a smoke house or detached kitchen would account for other structures that could be found on the farm – but again, few farms would have all of these. Similarly, landscape features were basic: stump fields, small patchworks of crop fields, large expanses of woodland, dirt tracks that passed for roads, and what fencing existed would be the simple “worm” type.

Houses

Typical housing from this period would have consisted overwhelmingly of small, single-pen or two-room log houses. A 1796 tax assessment for West Buffalo and White Deer Townships in Union County lists “houses” and “cabins” of log – either just “log,” “round log,” “scutched log,” “chipped log,” “squared log,” or “hewed log.” Sixty percent of the dwellings listed were cabins and the rest houses.²³ The distinction between a “house” and a “cabin” was unclear and probably subjective; a “house” tended to be larger in square footage and to have more than one story. If any of these survive, it is probably the larger buildings. Smaller units may survive as ancillary buildings, or perhaps incorporated into the fabric of later, larger buildings. The 1798 Direct Tax listings for the entire area confirm that log was overwhelmingly the building material of choice, and that most houses were very small, ranging from perhaps 20 by 26 feet all the way down to a cramped 16 feet square. It is difficult to imagine how these buildings could express much architectural differentiation. In the Northern Tier especially, dwellings tended to be quite small, and house values were extremely low in 1798.²⁴

There was a scattering of more substantial, atypical dwellings, erected by local elites. In Snyder County (at the time Union) the late 18th century Jacob Meyer house shows some typically Pennsylvania German characteristics: story and a half, stone construction, banked, cellar entrance, asymmetrical façade.²⁵ In Centre County, houses erected c. 1830 by Andrew Gregg and James Irvin were two-story, five-bay, center-hall stone Georgian style buildings. These buildings were exceptional and made a statement by virtue of their size,

²³ “Structures and Occupations in two Central Pennsylvania Townships in 1796,” no author, *Material Culture* vol 27 (1995), no. 1, pp. 32-42. The anonymous author speculates that “scutched” meant that the bark had been peeled, and that “chipped” meant that the log had been hewn thinner than usual.

²⁴ Soltow, Lee and Keller, Kenneth W. “Rural Pennsylvania in 1800: A Portrait from the Septennial Census.” *Pennsylvania History* 1982 49(1): 25-47.

²⁵ *Story of Snyder County 1855-1955*, (Official souvenir booklet, Snyder County Centennial, 1955 PSU Special Collections), p. 41. The phrase “German-Georgian” was apparently first used by Henry Glassie; it refers to dwellings which merge qualities documented as “Germanic” with those considered “Georgian.” For example, the Lutheran parsonage at Stouchburg, PA, has a center hall with four ground-floor rooms and two of those rooms have end wall corner fireplaces (“Georgian” characteristics), but on the other side of the hall, the two rooms share a large walk-in fireplace oriented along the roof ridge—a Germanic feature. In the Moyer house, the end chimneys may signify a “German-Georgian” form.

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materials, and relative architectural sophistication. In Columbia County, field survey work documented several two-story, three-bay, side-passage Federal era brick houses. In Bradford County, one or two isolated New England center chimney log houses survives. In Connellsville, Fayette county, the Davidson Farm had a three-bay, center-entrance stone house built in the late 18th century.²⁶ These dwellings were exceptional in their day and survive only because they were so grand. They probably expressed wealth acquired other than through farming. Gregg and Irvin, for example, came from ironmaster families. Others who are listed in the 1798 Direct Tax as having large stone or brick houses tended to also own large amounts of land and industrial facilities such as gristmills, sawmills, and distilleries.

Figure 1: Plum Grove house, Centre County, c1820.

Figure 2.: Standfield house, Potter Township, Centre County.

Figure 3: possible log house, Northumberland County, Small Cuts Road, Lower Mahanoy Township.

Figure 4: House facade. Columbia County, Greenwood Township.

Figure 5: Center Chimney log cabin²⁷ in Terrytown, Bradford County, c 1806.

Barns

In the southeast, documentation for the settlement period suggests that barns were small and that many farms lacked barns altogether. Very few settlement-era barns survive there; early barns were probably small, one-story log structures.²⁸ For areas settled later, the 1798 Direct Tax for the study area suggests that most people who occupied 100 or more acres (and thus were probably farming) had a log barn. In present day Centre, Lycoming, Mifflin, Columbia, Snyder and Union Counties, typically the listed barns measured about 18 by 20 feet, though in longer-established areas (for example near Muncy), barns could reach 60 feet in length. The smaller, typical log barn would probably have been all on one level and have a mow or crib; a central threshing floor; and a stable portion. Interestingly, in the Direct Tax for what became Bradford County (for example Wyalusing, Ulster, and Tioga Townships), the most frequently listed barn dimension is thirty by forty feet, evidence that the New Englanders who settled here brought the frame, gabled, un-banked three-bay “English” small barn, also sometimes called the “thirty by forty” because of its most common dimensions. A photo of a similar barn in northwestern Pennsylvania shows a three-bay organization with large eaves sides

²⁶ http://www.familyoldphotos.com/pa/2o/old_stone_house_davidson, accessed July 26, 2005.

²⁷ The term “cabin” was used by the Historic American Buildings Survey; the photo suggests a much grander building.

²⁸ Compared with southeastern or south central Pennsylvania.

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central door.²⁹ These barns had their entrance in the long side and three sections consisting of hay bay, threshing floor, and stables. This multipurpose barn housed the absolute necessities of settlement-era farming: draft animals and a few cattle to overwinter; perhaps a few sheep, a few tons of hay to feed them; a place to thresh grain and store equipment.

We can make a couple of inferences about all of these barns, based on the sketchy information from the Direct Tax and other sources. One is that at least in the case of the “thirty by forty,” New England cultural patterns were being replicated on the landscape of the Northern Tier already. The other is that even if the “thirty by forty” had a different footprint from the 16 by 18 foot log barn more commonly seen in central Pennsylvania, the functional organization of both types was probably quite similar. The very few documented ground-level log barns (in eastern Pennsylvania) were organized essentially like the thirty by forty: a door in the long side leading to a central threshing floor, flanked on one side by livestock quarters and on the other by a mow or crib for storing hay and grain. So, while culturally the forms may have differed, they both reflected very similar agricultural systems: winter shelter for a few select animals, limited grain storage and hay production, labor intensive methods.

Figure 6: Early barn in Harford, Susquehanna County.

Figure 7: barn , Tioga County, Sullivan Township.

The Direct Tax did list a few very large barns in areas that technically were still being settled. It is impossible to tell what these looked like or how many farms they served. However, one early log crib Pennsylvania Barn, probably dating from the early 19th century, was documented. The Dunlop Barn is a double-crib log barn, 68 by 36 feet, with the characteristic features of the Pennsylvania Barn, which originated late in the 18th century in the Pennsylvania German heartland. 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 (the Dunlop barn is one) 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. The Dunlop Barn and others of its size that date to this period probably served more than one farm. This inference is made because so few

²⁹ Henry Glassie, calls them “three-bay”, “Yankee,” or “Connecticut” barns. Sometimes lean-to “cow house” sheds were added. Henry Glassie, “The Variation of Concepts Within Tradition: Barn Building in Otsego County, New York.” *Geoscience and Man* 5 (June 10, 1974): 177–235. W. J. McKnight, *Pioneer Outline History of Northwestern Pennsylvania* (Philadelphia, 1905), 212 and 255.

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individual farms could possibly have cultivated enough crops and kept enough livestock to justify this big a barn; and because there were quite a few landowners with many tenants during this period.

Figure 8: Dunlop barn, east gable end

Figure 9: Dunlop barn, Potter Township (Georges Valley), Centre County, c. 1800.

Outbuildings

On a few farms, small outbuildings or temporary shelter probably housed poultry, hogs or sheep, and dairy work. The commonest outbuildings mentioned in the 1796 Union County local tax records were: stable; barn; spring house; kitchen; shop; still house; mill; and corn-crib. Among the buildings or structures mentioned in Gregg's accounts (1790-1814) were log stables, a storehouse, and a spring house. The 1798 Direct Tax lists kitchens, smokehouses, milk houses, wash houses, and spring houses on farms in the interior, but only a small minority were listed with any of these buildings. A few artisans' buildings, such as weaver shops, occasionally appeared, as did "still houses" and even one or two "corn houses" (probably granaries). Virtually all were small (twelve to fifteen feet square were common dimensions), and made of log. Fieldwork has not documented any of these ephemeral log buildings. A few stone springhouses and one stone ice house could date from this period, but definite dates are not available.

A stone ice house/slaughterhouse from Bradford County emphasizes the importance of creating cool storage in the pre-refrigeration era:

Figure 10: Ice-Slaughterhouse. Bradford County, North Towanda Township.

Figure 11: Spring house, Orndorf Road, Centre County.

Spring house

A spring house is a structure built over a spring or creek. In this period, spring houses were built usually of log, but occasionally of frame, or stone, generally with a gable roof. The lower portion is usually masonry, since water either runs through it or rises up into it. Spring houses have a square-ish or rectangular footprint. Sometimes they are banked. Usually they are only one story, but sometimes they have working spaces over the ground-floor level. A gable end door provides access. Few openings pierce the walls. Inside, there is usually a channel for water to run through, or to confine the spring; often there will be masonry or flagstone floors, and low ledges on which milk pans were set.

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The purpose of a spring house is to protect a valuable water source, but also to provide a space with a constant, cool temperature for cooling milk and other perishables. The spring house's siting is of course determined by where the spring is; so with respect to the farm buildings, its location is unpredictable.³⁰

Figure 12: stone house, Lycoming County, Wolf Township. .

Landscape Features

A traveler passing through Northern Pennsylvania in 1832 has this description of a farm. He encountered

a "neat, low, red farmhouse, in one of the broader valleys. It stood a few rods from the road, with a pretty garden and some fruit trees near it. The barn and out-buildings were near by. A large pasture, in which were a number of cattle and sheep, stretched along the hill side, back of the dwelling. In front, on the opposite side of the road, was a meadow with a clear, spring brook... running through it, and stealing away round the foot of a neighboring hill into the forest. Further up the valley along the meadow, was a field of corn, potatoes, oats, and rye, and a small patch of summer wheat. This was the farm."³¹

This description is likely embellished, but it identifies important landscape elements such as pasture, meadow, small crop fields, circulation pathways, gardens, and orchards. Typical features might have included stump, brush, or worm (also known as rail or zigzag) fencing; very small crop fields; and some meadow land. Cattle and hogs likely roamed free in unfenced woodland. Some communities retained the colonial custom of a "commons" and even put up common holding areas during the fall roundup. Large woodlots supplied lumber for cash income, building needs, and the sugar bush. Stump fields were a common sight then, and appeared well into the next half of the century and even into the 20th century.³²

Few landscape remnants survive from this period. Possibly, elements of early siting and circulation pathways might remain. Early farms were often sited to take advantage of springs and solar heat, rather than oriented toward the roadside. In some places within the study area, modern studies have confirmed that present boundary tree lines, wood lots, and

³⁰ See photo in *Rural Delivery* of a stone springhouse in Union County near Winfield, which was there when the book was published. The Snyder County Historic Sites Inventory from the 1970s listed one or two early spring houses.

³¹ *Hazard's Register of Pennsylvania*, July 21, 1832, p. 133. This description was originally published in the *Genesee Farmer*, no date given.

³² A 1926 Department of Highways photo near Brookville showed a stump fence.

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rock fence lines remain as evidence of these early patterns. In Miles Township, Centre County, for example, existing treelines and fence lines match up almost exactly with original survey lines from the 1790s.³³

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³³ Douglas Macneal, “Introducing Edward Heary’s Connected Warrants Map of Centre County,” *Centre County Heritage* vol. 31, # 1, 30-42. This article shows that many original boundaries are still marked by tree lines, pathways, and fence lines.

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