Jan. 1987)

Final Version: 31 May 19

United States Department of the Interior
National Park Service

National Register of Historic Places Multiple Property Documentation Form

This form is for use in documenting multiple property groups relating to one or several historic contexts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. For additional space use continuation sheets (Form 10-900-a). Type all entries.

A. Name of Multiple Property Listing

Historic Farming Resources of Lancaster County

B. Associated Historic Contexts

Agriculture in Lancaster County, 1710 - 1945

C. Geographic Data

Within the boundaries of Lancaster County, Pennsylvania (941 square miles)

☐ See continuation sheet

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards for Planning and Evaluation.

Brent D Glass on behalf — Dr. Brent Glass — 7/11/94

Signature of certifying official — Date

State Historic Preservation Officer

State or Federal agency and bureau

I, hereby, certify that this multiple property documentation form has been approved by the National register as a basis for evaluating related properties for listing in the National Register.

Patrick Andrus — 8/30/94

Signature of the Keeper of the National Register — Date

NPS Form 10-900-b
(Jan. 1987)

OMB No. 1024-0018

Final Version: 31 May 1994

United States Department of the Interior
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Donna Williams, Asst. Executive Director 7/11/94

Signature of certifying official — Date

Pennsylvania Historical & Museum Commission

State or Federal agency and bureau

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Signature of the Keeper of the National Register — Date

Introduction

Since before the American Revolution, Lancaster County, Pennsylvania has been noted for its significant contribution to agriculture, eventually earning the nickname "The Garden Spot of America."[1] As the principal historic economic activity of the county, agriculture has both influenced and been influenced by the development of other industries, transportation networks, and the cultural patterns of the county's residents.

Agriculture has shaped the social, cultural, and political history of the county and defines much of its present character and built environment. The county's farms continue to reflect this rich history, which extends from the period of early settlement and subsistence farming, through its prominence in wheat production, its dominance in tobacco production, and its adaptation to changing technologies and market conditions today. The community character that developed from this agricultural heritage has combined with the dominant Pennsylvania German (or "Dutch") communities, including plain sects, principally the Old Order Amish and the Mennonites, and blended with English Quakers, Scotch-Irish, French and other cultural influences, to create an identity that is recognized around the nation.[2]

Setting

Located in south-central Pennsylvania, Lancaster County is bordered to the south by Maryland, to the southeast by Chester County, to the northeast by Berks County, to the northwest by Lebanon and Dauphin Counties, and to the west by the Susquehanna River and York County. The county currently encompasses 941 square miles; approximately seventy percent of its 602,240 acres, or 416,000 acres remain in agricultural use.

Located to the southeast of Pennsylvania's Appalachian mountain ridges, within the Appalachian Piedmont, Lancaster County is relatively flat, largely consisting of an undulating plain averaging no higher than four hundred-fifty feet above sea level. The rock strata underlying the county generally divides it into three areas, each extending laterally across the county relatively parallel to one another. The largest of these is a central limestone belt which spreads through the middle section of the county. While relatively flat, the limestone plain is broken by the Welsh mountains to the east and Chickies Rock to the west, with a series of smaller ridges between. Three major waterways, the Conestoga River, Pequea Creek, and Chickies Creek, traverse the region, flowing southwesterly to the Susquehanna River. The northern tier is underlain primarily with sandstone and shale and includes a series of hills and ridges, with elevations reaching twelve hundred feet along the very northern tip of the county. Crystalline rock underlies the southern region of the county, which "has a wonderfully varied and picturesque maze of low hills and shallow winding valleys."[3] Waterways in the southern tier tend to be within steep valleys and include the Octorara, Conowingo, Tucquan, and Muddy Creeks, among others.

Weather in the county is generally mild. Soils are quite rich. Hagerstown loam covers most of the limestone valley, Penn and Berks soils the northern tier, and Conestoga loam most of the southern end. Rain is abundant and couples with the soil conditions to supply springs and wells. John Fraser Hart, in *The Land That Feeds Us*, states: "The only extensive areas of good farming land on the eastern seaboard of the United States are the limestone plain around Lancaster, Pennsylvania, and the Great Valley northeast and southwest of Harrisburg...."[4] This natural fertility has combined with Lancaster County's gentle topography and the skilled farming practices of local farmers to make it one of the most productive agricultural regions in the nation.

The pattern of human development on this landscape includes Lancaster City, a centralized urban area that has traditionally served as the county's hub for government, trade, commerce, and the arts. Most of the county's major transportation routes, including historic canal and rail routes, pass through or near the city. Along these routes a series of smaller communities developed as regional market and trade centers. Until recent decades, virtually all of the county's remaining developed lands were in agricultural use. Today this historical pattern remains very much in evidence, although suburban and industrial development have encroached on the farmland.

Population grew steadily from 3,485 in 1729 to 12,800 by 1738, and then on average by 10,000 per decade through 1920. During this time, the percentage of the rural to total population declined from one hundred percent to slightly more than fifty percent, although the decline was minimal until about 1840. There are presently sixty political subdivisions, including the City of Lancaster, eighteen boroughs, and forty-one townships. The population in 1990 was 422,822.

Settlement and Self Sufficient Farming, Circa 1710 - 1790

William Penn was granted title to Pennsylvania in 1681. It was his intention to create a colony of small landowners, rather than a series of large estates held by a privileged class as was common in other colonies. Together with Penn's belief in religious tolerance, Pennsylvania became a destination for Europeans seeking both economic opportunity and religious freedom.

When Penn acquired Pennsylvania, its Native American population stood at around fifteen thousand. By 1790, only thirteen hundred remained. In present-day Lancaster County, occupations by the Susquehannock, Conestoga, Pequea, and Shawnee have been identified. The century prior to 1700 saw prolonged periods of warfare between the Susquehannocks and the Five Nations of the Iroquois to control increasing fur trade. As a result of these conflicts, most of the county's Native American population abandoned the

area by the end of the 1600s. The relative absence of Native Americans was an attraction for early European settlers wary of discord with existing populations.[5]

Yet the Native Americans left their mark on the landscape. Stevenson Fletcher, in *Pennsylvania Agriculture and Country Life, 1640-1840*, describes what the early European settlers often found: "Small cleared areas near streams were mostly the sites of abandoned Native American villages. Large cleared areas had resulted from periodic firing of the woods by Native Americans in pursuit of game; these were particularly useful to the first settlers of Lancaster and York counties." Native Americans also cleared out such areas for planting crops. Called *grubenland*, from the German word for small tree, the "Pioneer farmers of [Lancaster County] harvested their first crops of hay on these natural meadows."[6]

Prior to the creation of Lancaster County from Chester County in 1729, Pennsylvania was divided into three large counties, Bucks, Philadelphia, and Chester. The first Europeans settlers in present day Lancaster County were primarily traders who established posts along the Susquehanna River. The first grants of land occurred as early as 1691, although they were primarily speculative in nature, with owners rarely settling on the land. One thousand acres, called the "Servants' Tract," was granted to a number of Welsh servants who had reached the end of their obligation. They chose to return to England and the land reverted to its Philadelphia owner in 1702.

Settlement

Substantial permanent settlement began to occur in what is now Lancaster County in the first decades of the 1700s. The first settlers were primarily Swiss and German Mennonites in search of a stable environment for religious freedom and economic opportunity. The sect was named for their leader, Menno Simons, who founded the Mennonite movement within the persecuted and fragmented Anabaptist sects of mid sixteenth-century Switzerland.[7] The Mennonites continued to suffer from religious intolerance, eventually leading them to migrate into the Palatinate region along the Rhine River in present day Germany. There they experienced periods of acceptance and discrimination as political and religious leadership changed. The first group of Mennonite settlers left the Palatinate and eventually settled in 1709 on a ten thousand acre tract along the north side of the Pequea Creek, south of the present day Lancaster City. Attracted by Penn's offer of land and freedom to pursue their own religious beliefs, many Mennonites saw in Pennsylvania an opportunity to escape poverty and intolerance. Among these first settlers were Hans and Martin Meylin, Hans Herr, Martin Kendig, Jacob Miller, Martin Oberholtzer and Wendell Bowman, progenitors of some of the County's most recognizable families. In subsequent years other groups of Mennonite settlers arrived in Lancaster County, often assisted by the Committee on Foreign Needs, a society founded in Holland to aid Mennonite refugees. Another group of Mennonite settlers, numbering more than three hundred, arrived in 1717 from Manheim, where they had relocated after a particularly fierce round of per-

secution in their native Switzerland in 1710. Mennonite migration into Lancaster County continued throughout the eighteenth century.[8]

The Mennonites were followed in 1712 by a small group of French Huguenots who settled in the Pequea Valley. Like the Mennonites, the Huguenots came to this country after having suffered religious intolerance in Europe. With the revocation of the Edict of Nantes in 1685, King Louis XIV began to persecute Protestants living in France. Many migrated to present day Germany, settling predominantly in the Palatinate. Like the Mennonites, many Huguenots responded to the economic and religious opportunities of America, establishing footholds from South Carolina to New York by the turn of the eighteenth century. The Huguenot settlements in Lancaster began with the migration of Daniel Fierre, his mother Madam Fierre, and his brother-in-law Isaac LeFevre from the Palatinate to England in 1708. In 1709 they left England for America, settling first in New York and then arriving in Lancaster in 1712. They established a settlement on a 2,300 acre tract purchased by Madam Fierre from 3,000 acres that had been acquired by Martin Kendig in 1711, which he named Strasburg.[9]

By 1714, 58,937 acres of land in Lancaster County had been surveyed.[10] Scotch-Irish began to arrive in the area at roughly this time and they located in the western portion of the county near the Chickies Creek in what is now Donegal Township and later along the Octorara Creek in the southern portion of the county from Sadsbury to the Susquehanna River. Contemporaneous to the early Scotch-Irish settlements were those of English Quakers in the far eastern portion of the county in what are now Salisbury and Sadsbury Townships. Present day Caernarvon Township was settled by Welsh Episcopalians in 1717.[11]

A group of Dunkers, a sect formed in Germany in 1708, arrived in Lancaster County in 1719 and established a church at Conestoga in 1723. It was from this group that Conrad Beisel split in 1729 to form the Seventh Day Baptist Brethren at the Ephrata Cloister. A contingent of Amish settlers moved into the county by 1737, when a settlement was established northeast of present day Lancaster City.[12] Members of a 1732 Berks County Amish settlement relocated to eastern Lancaster County between 1754 and 1790. In addition, non-Mennonite German immigrants began to arrive in the 1720s, representing a variety of religious beliefs, including Lutherans, Calvinists, and Baptist Brethren.

Clearing the Land and Early Farming

Much of Lancaster County was covered by dense forest when its earliest settlers arrived. In their 1883 history of the county, Ellis and Evans, "according to the most reliable accounts" described the landscape this way: "heavy timber upon most of the limestone land, with occasional meadows and swamps; lighter woods covering the southern belt, shale and sandstone ridges, while some exposed areas may have been entirely barren of trees and verdure."[13] A variety of factors entered into the choice of land by early settlers. They

may have preferred land resembling that from which they came, yet decisions were also influenced by existing settlements, a desire to settle in groups, etc. The largest portion of the limestone plain was settled by Pennsylvania Germans, with the Scotch-Irish settling in the Donegal area. The hillier southern portion of the county was largely settled by the English and Scotch-Irish.

Clearing the land and providing shelter for both families and livestock became the settlers' first tasks. During this early period, farming was practiced primarily to sustain the farm family. The earliest dwellings tended to be relatively temporary, providing shelter while land was cleared and crops were established. Often permanent barns were erected prior to the completion of a permanent dwelling. Houses constructed of logs were common in the first third of the 1700s and, as settlements became more firmly established, more substantial log or stone dwellings were erected. Among the earliest surviving dwellings in Lancaster County from this period are the log Mathias Slaymaker House (circa 1710) and the stone Hans (or Christian) Herr House (1719; National Register).

Mills, for processing agricultural produce, were established along the county's creeks and rivers and soon became commonplace. Christian Schegel built a mill on the Conestoga circa 1714 and others soon followed, including John Galbraith's in Donegal (1720), John Gardner's hemp mill on Chickies Creek (1721-1722), and Theodorus Eby's on Mill Creek by 1726. The mills were important centers of trade and meeting in this early period and were soon connected to surrounding farmland by paths and crude roadways. These trails would later serve as the basis for many of the county's permanent roads.

Farming Practices

With the increased availability of land, farming patterns developed in a markedly different way than had been common in Europe, where farmers often resided in villages surrounded by farmland on which "three field farming" or "Dreifeldwirtschaft" took place. In this system, crops were rotated on a three year cycle of "food, feed, and fallow," where, as Ivan Glick has described it, "one field would be idled in fallow, one field was planted in winter grain, and the third field was planted in spring grain or roots."[14] With this system, and because the generation of animal manure for fertilizer was limited by insufficient land on which to produce large quantities of hay, the soil was gradually depleted. When Mennonite and other refugees arrived in the Palatinate they were forced to settle on depleted lands. Through experimentation, they soon discovered new feeds, which could yield sufficient food to support their cattle on lesser acreages. Increased herds yielded greater quantities of manure. Manure nourished the soils and provided greater yields. To this, they added the discovery of the use of gypsum and lime and the rotation of hay and other crops with legumes, both of which substantially replenished the soil. These practices made it possible to farm the land without depleting the soils while increasing its productivity.

About the same time, English farmers also discovered the positive impact of clover in replenishing the soil, although the discovery was made for very different reasons. Sheep production became widespread as a result of increasing markets for cloth. Farmland was soon given over to pastures on which clover was often grown in addition to grass. This rotation of grazing crops substantially improved the soil and, after a few seasons, made the land productive for other crops.

Both the Germans and the English settlers to North America brought knowledge of these renourishing techniques with them. Yet, for reasons that are not well documented, the use of soil conservation methods, including the spreading of lime/gypsum and the use of legumes within crop rotations, was not universal among settlers in this country. Several published historical accounts suggest that the vast quantities of land available in America made it easier for farmers to justify using crop rotations that relied on a fallow period, or simply to move on to more productive lands, rather than practices involving gypsum and legumes. Fletcher suggests that the "introduction into grain farming of soil conserving crops, especially red clover and grass, was advocated and practiced by a few farmers for nearly a century before it was generally adopted."[15] There is evidence that the German farmers in Lancaster County were among the first to utilize these practices and their use of gypsum/lime appears to have been widespread.

The production of lime, a key ingredient for soil conservation and also an important building material, became commonplace in Lancaster County very early. In 1754, following a visit to "the beautiful Valley soil, of the Pequea," Governor Pownall found "on every farm a lime kiln and the land adapted for the best of wheat."[16] Lime kilns were constructed to burn limestone to produce lime and were often cooperative facilities established for use by several adjacent farmers. Many of these structures remain scattered about the countryside. In addition to lime, Lancaster County's German farmers were among the first in Pennsylvania to widely store and apply manure. Typically not practiced in the earliest settlements because of crude barn facilities, manure collection became common in local farms as soon as permanent barns were established.

Ellis and Evans described the farming practices of the settlers in their first years of settlement:

> "The early farmers cultivated spelt, barley, oats, and buckwheat for summer crops, and rye for a winter crop. Wheat was not then extensively raised: it was considered too delicate a growth and uncertain yield...Flax and hemp were also cultivated, and manufactured into linen and wearing apparel....The fields were plowed in lands, a certain number of furrows being thrown together, leaving two uncovered furrows between the lands, as is still done in wet soil. In harvesting, two reapers would take a land. Young women who could be spared in the house helped, many of whom did a full day's work....The meadows were mowed earlier than the uplands and the hay dried by spreading and turning it in the field during fair weather, and by putting it on weathercocks over night or at the approach of rain....Corn was in that day,

> and even in later years, often topped and bladed, leaving the ears to ripen on the stalk....Threshing was done with a flail or by tramping it out by horses, - a labor that lasted through the greater part of the winter, and was cold and tedious work "[17]

Cows and sheep were added to the farms as early as it was practical to do so and provided dairy products and fleece. Large draft horses were also raised. Cattle for meat production was limited due to the abundance of wild game.

During the decades following 1710, particularly after 1725, the county developed rapidly. By 1729, Lancaster's population had risen to 3,485. In 1728, local residents petitioned to have a county created from Chester County. They were successful and on 10 May 1729 Lancaster County, named after Lancashire, England, was erected. At the time, the county included much of the western Pennsylvania frontier, only to be reduced to its present size through the creation of York, Cumberland, Berks, Northumberland, Dauphin, and Lebanon Counties between 1749 and 1813. What would become Lancaster City was laid out by James Hamilton and became the County seat in 1730.

During the first third of the eighteenth century, farms began to produce greater yields and markets developed in Lancaster City and other population centers within the county. As quoted in Fletcher's *Pennsylvania Agriculture and Country Life 1640-1840*, Robert Proud stated in 1721: "The settlements about the Indian village of Conestoga [Lancaster] were considerably advanced in improvements, the land thereabout being exceedingly rich...They raise great quantities of wheat, barley, flax, and hemp...."[18] The marketing of crops beyond the county's borders was limited at the time by the difficulty in transporting goods. The completion of the King's Highway to Lancaster from Philadelphia in 1733 greatly increased such traffic. Trade, to a degree prompted by the rapid deterioration of the King's Highway, was also established with Baltimore by the 1740s.

Pennsylvania became the greatest producer of wheat in America by the 1730s, earning it the title "granary to the colonies." Wheat production was favored both because it was easily grown in the region and because it could be exported to the other colonies and abroad. By 1740, Pennsylvania flour and other grain products were being extensively exported to Europe. Lancaster soon dominated the state in wheat production. During the years between 1740 and 1790, wheat was responsible for much of the county's wealth and this was represented in local farms by the construction of larger and more substantial houses and barns. Seventy percent of the state's export trade was in wheat by the 1770s. By 1781, the assessed value of Lancaster County land reached $700,000.

Many chroniclers of Pennsylvania have given full credit to Lancaster's soil characteristics as the reason for its productivity. In reality, the practices of its farmers were a major contributing factor. During this period, Lancaster County's German population dominated the farming landscape. In terms of population, the per-

centage of the county's German speaking people fluctuated: in 1722 it stood at sixty-five percent; in 1758-1759 at fifty-eight percent; and in 1782 at sixty eight percent.[19] These statistics, and historical accounts, reflect that some of the county's English settlers moved away, and often German farmers acquired their lands. As Fletcher noted: "Former non-German settlements in Lancaster County are now evidenced by defunct or struggling Quaker meeting-houses and Episcopal or Presbyterian churches."[20] This shift has often been oversimplified as a testimony to the superiority of Pennsylvania German farming practices over those of the more transient English, Scotch-Irish, and Welsh. As early as 1789 Benjamin Rush wrote, "the German farm was easily distinguished from those of others, by good fences, the extent of orchard, the fertility of the soil, productiveness of the fields, the luxuriance of the meadow."[21] Recent writers, most notably James T. Lemon through his book *The Best Poor Man's Country*, have challenged this widely held notion, arguing that there were a variety of other factors contributing to the out-migration of non-German farmers from south-central Pennsylvania.

Lancaster County retained a substantial non-German population throughout its history and their contributions to its agriculture, economy, and cultural development are significant. Yet, if for no other reason than their greater population, the patterns of farming in Lancaster County were most influenced by the Pennsylvania Germans. The "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places described the typical Pennsylvania German farm this way: "The excellence of the Pennsylvania Dutch [German] farms was no accident; they were the result of good judgment, hard work, and superior methods of farming. Not only did the Pennsylvania Dutch [German] play a major role in the agricultural prosperity of Pennsylvania, but they established a tradition of family farming that has endured to this day."

In addition to wheat, corn became an important crop in Lancaster County soon after settlement, primarily as a feed crop for livestock. Rye was also raised by the early settlers for its straw, which could be used for thatch and the making of baskets, and also for its cereal. Grasses were not grown initially, as settler relied on natural grasses for the feeding of their livestock. By the mid eighteenth century "artificial" grasses became popular. Fiber crops were grown extensively, including flax, and to a much lesser extent hemp, and Pennsylvania also led the colonies in their production. Other popular crops included potatoes and tobacco.

Prior to 1790, livestock was raised principally for domestic use in Pennsylvania. Lancaster County's German farmers were noted for their livestock practices, whereby they treated and fed their cattle well and derived good yields of work and products from them. However, cattle of the settlement period typically produced little milk and were not extensively used to provide meat. Chickens were raised primarily for domestic use in the years prior to 1790. While horses were not used extensively on farms in the colony prior to 1790, they were used extensively to haul farm products to market. Lancaster farmers are credited with the development of a superior breed of draft horses by 1750. Fletcher states:

> It was natural that the first great horse of American origin should be developed by the Pennsylvania Germans....Hitched to the great, canvas-topped Conestoga wagons - 'the ships of inland commerce,' as Dr. Benjamin Rush called them, they moved the heavy tonnage from farm produce of Lancaster, York, and adjacent counties to the Philadelphia market....It [was] a symbol of the transition period in Pennsylvania agriculture - between the pack-horse train and the railroad; between subsistence farming and commercial farming.[22]

Like livestock, the growing of fruit, vegetables, flowers, and ornamental trees was primarily a domestic activity in the colonial period. Apples were grown extensively and were the primary fruit used for domestic consumption on the farm, typically for the production of cider. Ciders and other fruit beverages, often fermented or distilled, were very popular among the county's German population.

Lancaster farmers experimented with the growing of silk in the 1700s. Susanna Wright, daughter of the founder of Wrightsville, is credited with having generated the county's best production with a mantua of more than sixty yards. Weaving was a major home industry in the county but gradually dwindled by 1790.

Slavery existed in Pennsylvania and Lancaster County's slave population in 1790, at 348, was third highest in the state. Slaves were mostly owned by the non-German farmers, as the Germans were generally opposed to the practice both for religious and practical reasons. Fletcher cites an exception in "James Kiemer, a German farmer in Lancaster County; he bequeathed eight slaves to his wife and children, with the stipulation that they be set free at specified times."[23] Pennsylvania passed America's first abolition law in 1780, which freed most slaves by the 1820s. Physical evidence of Lancaster's slave population is quite rare. A portion of a stone slave cabin remains within a barn at the Jasper Yeates farm in Salisbury Township.

Early Industrial Development

During this period, a number of industries developed in Lancaster County. Curtis Grubb, a Welsh settler, who established Cornwall Furnace in 1742, added extensive land in Lancaster County to his holdings, including Hopewell Forge which he acquired in 1765. Grubb's son Peter established Mount Hope Furnace in present day Rapho and Penn Townships in 1784. Windsor Forge, in present day Caernarvon Township began producing iron in 1742. John Huber built Elizabeth Furnace circa 1750, Thomas Smith began Martic Furnace in the southern end of the county in 1751-1752, and Old and Caldwell created Speedwell Forge on Hammer Creek in 1760.[24] "Baron" Henry William Stiegel established a glass factory in Manheim about 1765 and also acquired Elizabeth Furnace in 1757. Important eighteenth-century industrial developments attributed to Lancaster County are the Pennsylvania, or Lancaster, long rifle and the the Conestoga wag-

on. As each of these industries developed, increasing numbers of Lancaster County's residents became involved in non-farming occupation, forming an expanding local market for local agricultural products.

The Farmstead, 1710-1790

During the county's earliest period of settlement, the farmstead generally consisted of a small farmhouse and barn. Shelter for the settler's family was always the first consideration, although the first shelters were often quite temporary. Temporary shelter would be arranged for any livestock as soon as practical and often the first permanent structure was the barn. Once land was cleared, often only a small portion of the total farm tract, and crops were established, attention could be given to the erection of a more permanent dwelling. In Lancaster County, this typically meant the construction of a one story log cabin.[25] Outbuildings often were not constructed until the farm operation was more fully established.

By the mid 1700s, the full pattern of future Lancaster County farm complexes had been developed. The farmstead was dominated by the farmhouse and barn. A series of outbuildings associated with domestic functions were grouped about the farmhouse and those associated with agricultural functions around the barn. Among the domestic outbuildings were kitchens (out-kitchens, summer kitchens), springhouses, bakeovens, washhouses, smokehouses, woodsheds, butcherhouses, and pumphouses. Agricultural outbuildings included pigpens, sheepfolds, chickenhouses, corncribs, hay barracks, wagon sheds, tool sheds, and often blacksmith forges, ice houses, and distilleries. Lime kilns and family burial grounds were other important built features of the farm that were located either adjacent to or separate from the farmstead. The building types common to the Pennsylvania German family farm dominated the county and were widely accepted among other cultural groups, through placement of buildings and styles and methods of construction varied.

By the later 1700s, new farmhouses constructed in rural Lancaster County tended to be two stories in height, generally three to five bays wide and two bays deep, and relatively conservative stylistically. During the mid to late eighteenth century, the distinctions between Germanic and traditional English styles diminished as aspects of each were accepted by the other. The Georgian style began to have influence by the 1760s. In rural Lancaster County, examples of the style tended to be vernacular interpretations, with a few notable exceptions. It was also during the latter eighteenth century through the mid nineteenth century that the Pennsylvania barn reached its height of development. The size of barns increased, to meet changing needs for increased storage, additional threshing floors, and upper level mows were accommodated.

Commercial Farming, 1790 - 1840

Commercial farming became an increasingly important aspect of Lancaster County farms throughout the mid to late eighteenth century. By 1800 Pennsylvania farmers turned the state into the leading producer of wheat in the country; Lancaster County farmers soon made it the leading wheat-growing county in the state. The county's wheat production led the nation on and off until 1850, when it produced 1,365,111 bushels and barely edged out Monroe County, New York. In addition, the acceptance of the land renourishing farming techniques of the "Agricultural Revolution" expanded rapidly in conjunction with the development of a major livestock industry. The expansion of better access to markets brought on by improved transportation, further stimulated Lancaster County's agricultural economy. Lancaster City was by this time the largest inland town in Pennsylvania with a population of 4,292. The assessed value of land in Lancaster County grew from $700,000 in 1781 to $6,700,000 in 1814. By 1830, it reached $28,700,000, four times the value of adjacent York County.[26]

The use of gypsum, or "land plaster," stimulated the growing of red clover which enriches the soil by adding nitrogen to it. The need to let fields lie fallow in order to control weeds was eliminated by the growing of corn, which is planted in rows, allowing farmers to hoe weeds from between the plants. Clover and corn became improved sources of feed for livestock. More livestock produced more manure, another vital source of nutrients for the soil. As John Fraser Hart described it in *The Land That Feeds Us*:

> The new rotation greatly increased the amount of winter feed available for livestock....Farmers valued their animals for their manure almost as much as for their meat because they needed manure to fertilize their soil in the days before chemical fertilizer had been invented. You could tell how good a farmer was by the size of his manure pile. More manure meant richer soils, richer soils meant better crops, better crops meant larger animals, and larger animals meant still more manure. This interdependence of crops and livestock in a tightly integrated farming system is called mixed farming.[27]

According to the "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places:

> ...the half-century from 1790 to 1840 has been called the golden age of Pennsylvania agriculture, a period when an agricultural economy reigned, before the age of industry brought its revolutionary changes to the patterns of work and life. This half-century was a time of agricultural awakening when worn-out fields were rejuvenated and farm mortgages paid. [The] new husbandry and new markets brought to Pennsylvania farmers a period of prosperity that has not been surpassed.

The development of Lancaster County as a major commercial producer of agricultural products was also aided by transportation and technological improvements, e.g. the cast iron plow, wheelbarrow sowers, and threshing machines. While Lancaster's farmers had been trading their goods in markets outside the county for quite some time, they had always been hampered by poor road conditions. With better roads and other forms of transportation, these limitations would be removed, freeing farmers to produce greater quantities of marketable products. As these markets opened, new technology was producing farm equipment that greatly increased the farmer's capacity for production. The result was a sustained period of prosperity for local farmers, that was soon reflected in their built environment.

Ellis and Evans had this to say about the prosperity of the period:[28]

> The orchards planted were beginning to yield fruit. There were barrels of cider on the shady side of the house, red and russet apples in the cellar, fragrant dried fruit, gathered seeds, and sweet herbs in the garret. The granary and the mows in the barn did not get altogether empty between harvests, The manure pile grew large and fat; and still there remained stacks of hay left over from last year. As the substantial comforts of the farmer thus multiplied other and new cravings and wants began to be felt, and he and his household needed more than ever the stern warnings from their ministers against the lusts of the eye and the pride of life....

Transportation Improvements

The "Tobacco Buildings in Lancaster City" multiple property nomination to the National Register of Historic Places provides the following description of these transportation improvements:

> Roads were laid out in what was to become Lancaster County beginning in 1718, connecting back country settlers along the Susquehanna and Conestoga Rivers to Philadelphia, New Castle on the Delaware, and ports in Maryland. Once the county was formed and the county seat located at Lancaster, a "King's Highway" was opened around 1730 which began at the old courthouse in Lancaster and ran almost to the division line of Lancaster and Chester Counties. For sixty years this "great road," or "Old Philadelphia Road," was the shortest way from Lancaster to Philadelphia. In 1792 the earliest turnpike in the United States was laid out between the (then) borough of Lancaster and Philadelphia. Known as the Lancaster Turnpike, it was opened in 1794; by the time Lancaster became the capital in 1799, the turnpike was heavily traveled by stagecoach. The construction of this advanced road was followed by others which linked the county to far-flung points around the state.

As part of Pennsylvania's internal improvements system, the Board of Canal Commissioners was appointed around 1826 to extend an existing canal program along the Susquehanna. In 1830, despite opposition, the canal along the river was extended southward to Columbia, a borough on the river about twelve miles west of Lancaster City. From Columbia, boats were either filled with produce and merchandise or the contents were transferred to carts and later railroad cars to be taken to Philadelphia. At Columbia large privately owned warehouses were erected to accommodate the canal boats. This commercial traffic soon was greatly expanded by rail and bridges linking Columbia with Pittsburgh: via this route goods and immigrants were shipped to the western states.

In 1820 the Conestoga Slack-Water Navigation Company was chartered with the objective of building several dams and locks between the mouth of [Conestoga Creek] and Lancaster for the navigation of boats; however, no progress was made on this until 1825. In 1829 large quantities of coal and boards began to arrive in Lancaster by this method. The navigation company alternated between prosperity and hard times for about thirty more years until it was finally displaced by the railroads.

The Pennsylvania Railroad Company was chartered in 1823; two of the incorporators were from Lancaster County. The purpose of the company was to build a railroad line between Columbia and Philadelphia, an ambitious project at this early date and one which predates the opening of the canals. This line was to divert the growing trade down the Susquehanna from continuing on to Baltimore. Although the plan at this time did not come to fruition, in 1826 another rail line was chartered, the Columbia, Lancaster, and Philadelphia. The major decision to building the expensive link between Columbia and Philadelphia, either by canal or rail, fell to the legislature which in 1828 passed an act authorizing the canal commissioners, then in charge of internal improvements, to extend what was known as the Eastern Division of the Pennsylvania Canal to the mouth of the Conestoga Creek and to determine the best means of establishing a route between Columbia and Philadelphia. Accordingly, the commissioners voted in favor of a rail line to be known as the Columbia and Philadelphia Railroad (later the Pennsylvania Railroad).

Engineering for the new railroad link between Columbia and Philadelphia began in May 1828 and was completed by December. Construction contracts were let in January 1829. The first passenger coaches were drawn by horses between Columbia and Lancaster on 31 March 1834 and the line from Columbia to Philadelphia was dedicated on 15 April 1834. Use of the railroad for transporting agricultural products took time to develop. The railroad did not replace the droving of cattle, for example, until after 1840.

Crops

During this period, wheat continued to be the county's major crop. Ellis and Evans described the crop rotation typical of the period: "Two years in grass, of mixed clover and timothy, one year in corn, one year in oats, then a heavy coat of barnyard manure plowed down, and two years in wheat, to be followed again by grass. Accordingly, many farms were divided into six fields, receiving one coat of manure every sixth year, and an application of lime once in the same year...."[29] Portable threshing machines were introduced into the county by William Kilpatrick about the year 1832. This was a substantial development, as threshing, which previously was much of the farmer's winter work, could now be accomplished in a matter of days.

Corn became an increasing popular crop throughout this period. Native Americans introduced it to the European settlers who raised it raised primarily for domestic consumption and as a feed for livestock. Because it was an important livestock feed, and because it was grew well in Lancaster County's climate, the rise of cattle production resulted in an ever increasing demand for corn. This was furthered by improvements made in the way corn was grown, specifically the closer spacing of plants and the use of cultivators, after 1790.

Rye also continued to be grown as a major crop and was used domestically for the baking of bread and the distilling of whiskey. Barley was produced, primarily by German settlers, for the production of beer. Production of hay rose due to increased demand brought on partly by transportation improvements that resulted in the greater use of horses. In 1828, the first leaf tobacco was grown in Lancaster County.

The use of gypsum, or "land plaster," and its subsequent impact of the growing of red clover, was a major development in the re-nourishing of the soil that became commonplace by the early 1800s. The increased production of grasses and red clover that resulted from the use of gypsum provided an improved source of feed for livestock. More livestock produced more manure, another vital source of nutrients for the soil. These developments, coupled with the expansion of livestock production and the better access to markets brought on by improved transportation, further stimulated Lancaster County's agricultural economy.

Historical accounts and agricultural statistics indicate that by the end of the eighteenth century, Lancaster County's farms were in a high state of cultivation. Duke De La Rochefoucault Liancourt, in his *Travels Though the United States of North America, The Country of the Iroquois, and Upper Canada*, published in London in 1799, described the farm of Colonel Matthais Slough, located just east of Lancaster, as he visited it in 1795:

> This estate, which contains one hundred and ten acres, is now in a fine state of cultivation. About eighteen or twenty acres lie in grass, and form the most beautiful meadows; twenty-

five are covered with wood, and the rest are under the plough. He lays from twelve to fourteen tons of dung on each acre: no land lies fallow, but he entertains the same prejudices as the rest of the farmers in favor of flat ridges, and against sheep. His son, in whose company I surveyed the estate, confessed, that the theory and practice which prevail in Europe do not agree with the husbandry of the Americans...." [30]

Cattle and Livestock

The period after 1790 also saw the rise of cattle and livestock industry in Lancaster County. With improvements in transportation, and the increased productivity of the land and its ability to provide surpluses beyond that necessary to sustain the farm family, the production and feeding of livestock became commonplace. Significant improvements in livestock husbandry resulted in greater productivity. Where the early settler's cow had often been a somewhat scrawny creature capable of producing only a limited quantity of milk, by the 1800s cows were substantial animals of seven to eight hundred pounds. Locally grown beef increasingly became an important export commodity and Lancaster County developed as a center for the fattening of cattle from the west prior to its shipment to markets in the east. According to John Fraser Hart:

> Philadelphia and other seaboard cities were growing rapidly, and they needed ever larger quantities of meat. Their demands were satisfied, in part, by cattle from the newly settled areas of the west. Professional drovers assembled great herds of cattle in the back country and walked them eastward toward Philadelphia. The cattle lost weight en route, and they were lean, gaunt, and hungry by the time they reached Lancaster. The local farmers bought them cheaply, fattened them on corn, and shipped them off to the slaughterhouses of Philadelphia for a nice profit. The Lancaster plain became a major beef fattening area, and for many years Lancaster was one of the nation's leading cattle markets.[31]

Cattle were typically pastured in Lancaster County, with stall feeding practiced in the winter months. Cattle for sale in easter markets were driven in herds in the late spring and summers. Early on, grass was the preferred feed. In later years grains, especially corn, were mixed in with the grasses. According to Fletcher, "Lancaster County, with its bountiful crops of grass and grain, became the center of the stall-fed beef industry of the state, a preeminence which it holds to this day [1950]."[32] Frank B. McClain, President of the Lancaster Livestock Exchange in 1924, wrote an essay about the Union Stock Yards in Klein's history of the county in which he stated: "I remember well hearing my father tell the story of a drive of 300 head of steers he participated in, away back in 1843, from Champaign County, Illinois to Lancaster, and the progress made was about twelve miles per day on the average, and seventy days to the whole trip."[33]

Between 1790 and 1840, the commercial production of swine also developed as an aspect of Pennsylvania farms, including Lancaster County. Swine were relatively easy to raise and their meat could be cured for use throughout the year. Prior to 1790, swine existed in Lancaster that had been brought from Europe by early settlers. Rather than being held captive and fed, farmers routinely let them forage for food in their nearby woods. The swine of this early period were a sturdy breed of razorbacks. One early visitor was quoted as saying: "They have great stocks of Hogs kept in the Woods....I saw a Hogg Kill'd of about a Year old, which weighed Two Hundred weight; whose Flesh is much sweeter and even more luscious than that in England, because they feed and fatten on the rich (though wild) Fruits, besides those fattened at home by Peaches, Cherries, and Apples."[34] Between 1810 and the 1830s, competition from western swine producers, particularly in Ohio, increased significantly. Herds of hogs were driven overland across the Alleghenies to southeastern Pennsylvania. Although this affected commercial production in Lancaster County, local farmers continued to raise pork for their own use or for export to local markets.

Sheep production was also a major commercial enterprise in Pennsylvania, yet never developed significantly in Lancaster County. Again, competition from breeders in the west eventually led to the decline of the already minimal local production by about 1840. With the improvement of local transportation routes, and the subsequent increase in the shipping of goods, the raising of horses became an important enterprise. The Conestoga draft horse continued to be raised until horsepower was largely replaced after the World War I.

Dairy Production

Prior to 1830, the production of butter, cheese, and fluid milk was a secondary by-product of the county's cattle industry. Most of the county's dairy production was consumed locally, either for on-farm use or as a market commodity in Lancaster City or the County's smaller boroughs. Butter was produced and stored in the cool of the springhouse. Commercial dairy production began to become an important industry with the increased demand for milk in the urbanized areas of the county, especially Lancaster City, brought about by their growing populations. Butter and cheese, however, were the most significant market dairy commodities prior to 1840.

Horticulture

The commercial production of fruits and vegetables increased significantly in the years following 1790, primarily as a result of increasing demand in urban areas and improved transportation. Apples, always an important product of Lancaster's orchards, were extensively grown and often converted and sold as cider. Another development on Lancaster's farms was the increasing occurrence of ornamental gardens. As farms developed and became more prosperous, the flower gardens that had always been a feature of the Pennsylvania German household gradually also became more elaborate.

The Farmstead

The major changes that occurred to the Lancaster County farmstead during this period were the increasing size and substantial character of the farmhouse and barn. H. M. J. Klein wrote: "...Lancaster county farms produce bigger crops per acre than the farms of any other county in Pennsylvania, and it is one of the reasons why the farmhouses and farm buildings of the 'man who follows the plow' in Lancaster fairly shout prosperity to the passerby."[35] Architecture saw a blending of cultural influences and an acceptance of elements of major national styles. By the 1790s, the Federal style of architecture became popular for local farmhouses and the vernacular Pennsylvania style developed. Additional outbuildings began to appear, as commercial farming developed and diversified. The regional "Pennsylvania" style evolved into a fully recognizable vernacular form of farmhouse and the Pennsylvania barn reached its full development.

Tobacco Production and Industrial Development, 1840-1900

Lancaster County led the United States in total farm production in every U.S. Census from 1850 to 1900. In 1870, Lancaster County's total farm production reached $11,815,008, making it probably the first agricultural community in the United States to exceed ten million dollars. 7,411 farms yielded 2,077,413 bushels of wheat, 2,820,843 bushels of corn, and 88,245 bushels of oats. The County led the state in the following categories: improved acres of farmland, cash value of farms, cash value of farm implements, total farm wages, total value of all farm production,value of animals slaughtered or sold for slaughter, value of livestock, number of horses, number of mules, number of swine, and in production of wheat, corn, oats, seed grass, and hemp. It was a close second to Chester County in orchard production.

The period from 1840 through 1900 saw many changes in the county's farming industry. Frederic Klein stated of the period from 1850 to 1860 alone: "In three distinct ways the Lancaster farmers of 1860 differed markedly from those of 1850. By the end of the decade they had become mechanized, organized, and specialized; mechanized through newly invented tools, organized through agricultural societies, and specialized by the rapid introduction of tobacco culture."[36]

In addition, the face of the county itself was changing as non-farm industries developed in the latter part of the century. During this period the City of Lancaster grew rapidly due to industrial development and became a larger market for local farmers. By 1870, the county's 1,616 manufacturing establishments ranked second in state. By the 1890s, the county's manufacturing economy was beginning to rival its agricultural production.

From Wheat to Tobacco

In 1850, Lancaster County led the nation's counties in total wheat production by raising 1,365,111 bushels. By the next census, the county's national dominance in this crop waned as counties in the upper Mississippi Valley out-produced it. Still, Lancaster County continued to lead Pennsylvania with crops of 2,125,722 bushels in 1860, 2,077,413 bushels in 1870 and 2,232,590 bushels in 1890. York County, the state's next highest producer in 1870 raised 1,129,500 bushels, only slightly more than half Lancaster's total.

Yet by the mid century, farming counties in the west were providing an ever increasing supply of the nation's wheat. The opening of the Erie Canal and the improvement of steamboat and early railroad service provided cheap transportation for western producers and they soon overtook Pennsylvania in wheat production.

As western wheat production increased, many local farmers chose to work to improve the yield of their wheatfields in order to compete. A local strain of wheat, referred to as Lancaster red, became the regional wheat of choice for a time. For other farmers, simply increasing production was not enough and they turned to another cash crop: tobacco. By the mid 1860s, Lancaster County was leading the state in the production of tobacco. In essence, it had anticipated its declining supremacy in wheat production and assumed a similar leadership in tobacco without missing a beat.

Tobacco

In 1990, the Historic Preservation Trust of Lancaster County completed a multiple property nomination to the National Register of Historic Places titled "Tobacco Buildings in Lancaster City." Gloria O. Becker, Ph.D. served as the principal researcher and author. The following excerpts from that nomination detail the history of tobacco production in the county.

The Rise and Dominance of Tobacco

> Tobacco was considered the crop of choice because it fit into the Lancaster County farmers' crop rotation system and the weather was generally favorable for its growth. Many farmers, however, feared the plant would deplete the soil. It was later found that with planned rotation and manuring the plant could be cultivated without ill effects to the rich soil. Somewhere between 1840 and 1850, Lancaster farmers became the top tobacco producers in the country and remained atop the industry for more than seventy years.

Most early efforts at tobacco cultivation in Pennsylvania had taken place in the Philadelphia area and along the Susquehanna River, generally in Lancaster and York Counties. Farmers in Lancaster County had grown tobacco which had evolved from the species *nicotina tobacum* as early as 1828 near Ephrata, mainly for local consumption. These early attempts in Lancaster and York Counties produced a tobacco described as "shoestring," i.e., heavy, black, and gummy. Nevertheless, Germans of Lancaster County did grow their own, hang it in the barn rafters to cure, and used it for chewing or smoking. The unused leaf, although generally not properly cured, was rolled into cigars known as "stogies" (named for the nearby Conestoga River), and sold at local stores.[37]

The problem in shifting from tobacco culture as a local effort to one with commercial possibilities was directly linked to the type of leaf grown in Pennsylvania. Despite William Penn's hopes for tobacco cultivation and the colonists' early forays into its production--fourteen cargoes of tobacco were shipped from the Province of Pennsylvania in 1689--the quality continued to be inferior to that of Maryland and Virginia until about 1837.[38]

The change to a superior product came in the 1830s with the introduction of a Cuban tobacco seed called Havana, which produced a broader leaf and a better quality tobacco for use in the manufacture of cigars. Benjamin Thomas of York is credited with experimenting with this leaf in 1837 and distributing it to his friends the following year. It was then favorably received when shown in the Philadelphia market. Thus began the Pennsylvania cigar tobacco industry.

Several varieties of cigar leaf tobacco were grown in Pennsylvania and in Lancaster County, but the primary types were the aforementioned Pennsylvania Havana Seed, used for binders (inner wrappers), and Pennsylvania Broadleaf or Seedleaf, developed to have a broader leaf and used primarily for cigar filler (chopped inner leaves), and sometimes for binders and wrappers (wrappers were the outer leaves).

The growth in the size of the cigar-leaf tobacco production in Lancaster and York Counties is impressive: in 1840 Pennsylvania produced 225,018 pounds of which York County produced 162,748 pounds and Lancaster County produced 48,860. By 1860 over 3,000,000 pounds were produced in the state with Lancaster County the leader in production. In that year, Lancaster County produced 63% of the total cigar leaf; by 1900 it would total over 90% of the state's production (49,335,407 pounds) valued at eight million dollars.[39]

By 1883 Lancaster City was second only to New York City as the largest seedleaf market in the country. The seedleaf product for cigars coming out of Lancaster City at that time, in addition to large quantities of leaf used for filler, now also included a fine wrapper leaf which was "soft, pliant, silky...not light nor flimsy, but thin and tough, with veins so small as not to show above the level of the leaf and only a moderate amount of nicotine." It was said to be "handsome in appearance and of pleasant flavor," with a rich dark-brown color, and it burned with a white ash.[40]

The success of tobacco cultivation in Lancaster County has been credited to several factors, especially the rich soil, favorable weather, and practice of its farmers to manure the soil to protect it from depletion. Another contributing factor was the presence in the area of many farm families, particularly among the Amish and Mennonites, who, with their strong work ethic, provided a ready supply of workers almost year round for this labor-intensive crop.[41]

In addition to soil conditions and tobacco-growing skills, the curing, packing, and marketing of the leaf at the farm level are also important. Tobacco grown in Pennsylvania is stalk harvested, i. e., cut in the field and allowed to wilt in the sun for about an hour to prevent breakage when handled. Next, the butt end is speared on a lathe, hung on temporary portable racks known as "scaffolds" or "tobacco ladders," and then hung in ventilated barns to cure for a minimum of eight weeks. In the ventilated barn or curing shed the green ripened leaf which is harvested full of moisture and is brittle and difficult to burn is converted to the brown, easy to burn, aromatic, finished cigar tobacco by a process known as air curing (in contrast to flue curing). (Additional drying of tobacco for storage and to further develop flavor and aroma is referred to as fermentation or "sweating.") Both dry days and humid days are needed to cure the tobacco in the barn. After drying, the tobacco wilts and is brittle, so farmers then waited for humid days or moist snowy days to allow the tobacco to draw in some moisture before making the final preparations prior to sale. This took place originally in the farmer's stripping cellar, or room with an earthen floor. The moisture softened the leaf and made it pliable so it could be stripped from the stalk leaf by leaf, sorted into good or trash grades, and baled.

When the tobacco was ready to be examined for purchase, buyers and representatives of tobacco dealers and manufacturers from all over the country came to examine the farmer's tobacco. If a sale was made, the bales were weighed, and a check was issued to the grower. After the grower delivered the tobacco to the warehouse, further processing, curing (sweating), and repacking of the leaf were the responsibilities of the packer-dealer at the warehouse. Proper management of the sweat was vital to the finish of the leaf; therefore, it

was far better done in the controlled environment of the warehouse than the barn. Eventually specialized tobacco warehouses were built for sweating (or resweating, as it was called).[42] The development of this warehousing system to handle and store tobacco in the second half of the nineteenth century was directly linked to the growth of the tobacco products manufacturing industry, primarily cigar making, in Lancaster City.

The following comparison between Lancaster County tobacco production and the State of Pennsylvania is included in H. M. J. Klein's *Lancaster County Pennsylvania: A History*.[43]

Year.	State Pounds.	Lancaster Co. Pounds.	Lancaster Co. Per Cent.
1839	325,018	48,860	15.0
1849	912,651	378,050	41.4
1859	3,181,586	2,001,547	62.9
1869	3,467,539	2,692,584	77.7
1879	36,943,273	23,946,326	64.8
1889	28,956,247	19,217,800	66.4
1899	41,502,620	28,246,160	68.0
1909	46,164,800	36,892,868	79.9
1919	55,984,791	48,335,407	88.1

Cattle and Livestock

After 1840, Pennsylvania's dominance in cattle production declined, as producers in Ohio and gradually further west assumed leadership. In Lancaster County, however, cattle and livestock continued to be a profitable aspect of total farm production. By 1870, the county had become the state's leading producer of "fat cattle." Fletcher quotes an 1879 description of the process by Frederick Watts of Cumberland County: "[Stock] is brought from the West, purchased in the fall, fed with hay, corn, and oats during the winter, and sold in the months of March, April, and May. The farmer finds that the increase of weight and the price of cattle fed is the most profitable mode of disposing his corn and oats and increasing the quality and quantity of his manure."[44]

Prior to the third quarter of the nineteenth century, local cattle were driven on foot to locations as far west as Chicago and as far east as Philadelphia. As the freight capacity of the railroad increased, the County developed into a central processing point, as stockyards developed along the railroads in and near Lancaster City. A small stockyard was established in Lancaster City in 1868 near the site of the present Armstrong World Industries plant. Two more opened near McGrann's Park within a few years. The Pennsylva-

nia Railroad established the Union Stockyards in 1895 on a twenty acre site along the northern boundary of the city along Lititz Pike. At these stockyards, cattle and livestock would arrive by train from other locations across the United States and Canada, as well as from Lancaster County producers, and then be sold and shipped to others for processing.

In 1880, Pennsylvania was hit by an epidemic of bovine tuberculosis. The Pennsylvania barn was blamed for the higher incidence of the disease in Lancaster County because of the crowded conditions under which the cattle were kept. State agricultural experts predicted that all such barns would be demolished and replaced with new barns by 1900. Yet no evidence has been found to indicate whether or not any barns were actually demolished or modified as a result of these concerns.

During this period, the production of swine and horses continued to be significant aspects of Lancaster County's total agricultural production. Lancaster was among the leading producers of swine in Pennsylvania, topping all counties in 1860 with 54,826 and in 1870 with 50,070.[45] Sheep production continued to be relatively insignificant.

Dairy Production

According to Fletcher, "Between 1840 and 1900 it [the dairy industry] was transformed from a simple home enterprise, conducted mostly by farm women, into a highly organized commercial enterprise, conducted mostly by men."[46] The development of the railroad made possible the shipping of dairy products to markets outside Lancaster County after 1850. Prior to the development of electric refrigeration, such products could only be shipped to markets within a range of rapid delivery. Technological developments, including the invention of the vacuum condenser in 1856, the development of the silo about 1875, the invention of the continuous milk separator in 1879, and the development of a method of determining milk's fat content in 1892, contributed to the rise of the commercial dairy industry.

In addition, the breeding of dairy cattle underwent significant improvements during this period. Purebred lines were slow to gain acceptance by farmers, other than experimentation by wealthy gentleman farmers, until the mid nineteenth century. Henry A. Carpenter was one of the earliest Lancaster County farmers to raise purebred cattle, acquiring a herd of one hundred such animals by 1830.[47]

Most milk was made into butter. Storage of the milk was accomplished in the springhouse, or in milk houses, where spring water would be used to provide a relatively constant refrigeration. Separation of the cream from the milk was accomplished using a system that included a milk pan (often made of earthenware or stoneware). Fletcher quotes an 1849 description of the process by a Lancaster County farmer:

> ...farmers here keep from 4 to 12 cows,...and keep milk in a cool spring-house in summer, and, during cold weather in a heated room; the cream is taken off as soon as it becomes

> sour, and kept in large crocks from 3 to 6 days; it is then churned, and the butter washed in cold water till the buttermilk is all out; it is then lightly salted...The farmers' wives usually take it to market or exchange it for groceries as soon as made, and the country storekeepers resalt and pack it in small firkins, to be sent to other markets.[48]

After 1883, centrifugal milk separators came into use.

Butter production gradually shifted away from the farm to the factory after 1880. Yet, in 1890 Lancaster County led Pennsylvania in the production of butter for the first time. Fletcher cites the following statistics for butter making:[49]

County	1850	1880	1890
Chester	2,092,000	4,247,000	1,628,000
Delaware	1,342,000	1,428,000	399,000
Lancaster	1,908,000	3,381,000	3,064,000

Market milk began to become a major dairy product for Pennsylvania farmers after 1870. Cities were growing rapidly at this time, and the market for processed milk was expanding. The rate of this growth can be seen in shipping from Lancaster County, which rose from 143,000 gallons in 1870 to 8,000,000 gallons in 1890.

The development of the silo was significant. Prior to this advance, farmers could only store dry feed for use during the winter months. Dairy cows fed dry feed produced significantly lower amounts of milk and many farmers found it impractical to milk during the winter. Silos allowed moist feeds to be stored, thereby allowing for year-round dairying. Although invented in 1875, the first silo did not reach Pennsylvania until 1880. The round silo, so common in today's agricultural landscape, was not used extensively until 1890, and only became commonplace on Lancaster County farms about 1920.

Technological Advances

The period from 1840 through 1900 saw many significant technological advances and a rapid increase in farm mechanization. Between 1850 and 1860 the value of the county's farm machinery rose by more than fifty percent, to more than a million and a half dollars. Frederic Klein sates: "When we consider that the capital invested in all manufacturing enterprises of city and county in 1860 was only a little over five and a half million dollars, we can see the extremely significant part agricultural implements played in the economy of the region."[50]

The grain drill was first used in Lancaster County in 1842. The McCormick Reaper, which could harvest grains far more efficiently than by hand, was introduced into Lancaster County in 1851 by John B. Eby of Clay Township. The increased productivity of the reaper was augmented by the invention of self-tying grain bundler.[51] Numerous other mechanical farm implements were developed during the period and those in use were constantly improved. Jacob Mowrer of Lancaster County, for instance, patented a two row cultivator in 1869 that saw widespread use until the turn of the century.

In addition, the mid-nineteenth century saw significant advancement in the technology of plows. John Deere's invention of a plow with a circular metal saw blade in 1837 began what would become a series of major innovations in the design of metal plows. In 1859, Lancastrian Joseph F. Fawkes developed the steam plow, for which he won a gold medal from the U. S. Agricultural Society. Unfortunately, the invention was not well suited to the relatively hilly Lancaster County countryside and was primarily used on farms in the Midwest. By the 1860s, the use of metal plows was widespread in Lancaster County. Other developments, notably the riding plow, would follow by the turn of he century.

During this period, the use of horses to power farm machinery developed. "Horsepower rooms," became additions to many of the county's barns in which horse labor was used to power belts and gears to power farm machinery. Samuel Pelton, Jr., a Lancaster County farmer, developed a horse powered threshing device in 1852. A remnant of a horsepower room remains at the mare barn of the Speedwell Stock in Elizabeth Township. The use of water and steam power also increased during the latter 1800s. The Rohrer's Farm and Mill in Paradise Township retains substantial vestiges of a water-powered system used to operate a sawmill, grist mill, and other farm machinery.

Yet in conservative Lancaster County, there was an appreciable level of concern over increasing mechanization. Day laborers especially were skeptical of new technological advances, fearing the loss of opportunities for work. There were also religious criticisms, with some literally interpreting the Bible passage "With the sweat of thy brow thou shalt eat thy bread."[52]

The diversification of Lancaster County agriculture continued throughout the latter nineteenth century. H. M. Engle of Marietta became a pioneer in the spraying of orchards in Lancaster County starting in 1889 when he sprayed his apple trees with London Purple for codling moth. He also became the first Pennsylvanian to experiment with the growing of chestnuts in the 1890s. Fruit production and truck farming continued to add to the county's total agricultural output.

Organization

The mid-1800s also saw the rise of farming organizations in Lancaster County. These groups served mostly as a venue for exchanging ideas and information about new methods and other practical topics.

References to the Lancaster County Agricultural Society date to as early as 1852. In 1854, the Octorara Farm Club was established. It became one of the longest operating farm clubs in the nation.

During the 1880s, considerable tension developed between farmers and the railroads. Farmers generally resented the high rates the railroads charged them for moving their goods to market while charging the same rates to ship goods from other, more distant producers to the same markets. Pennsylvania farmers were also feeling the competition brought about by the settlement of the western United States, where between 1870 and 1880 more than 297,000 square miles of farmland was created.

The Farmstead, 1840 - 1900

Technological advances resulted in the most notable changes to the Lancaster County farmstead during this period. The increasing use of silos in the latter decades of the nineteenth century would have the greatest impact on the county's skyline. The tobacco barn became commonplace. Additional barns were needed to house increasing livestock populations. Cribs, machine rooms, chicken sheds, and other outbuildings developed. Farmhouses constructed during the period were typically of the Pennsylvania style, often exhibiting simple Greek Revival detailing before about 1870. Farmhouses in a variety of Victorian styles were also constructed, as were Pennsylvania style farmhouses with Victorian detailing.

SHIFTING ECONOMIES, 1900-1945

Lancaster County did not lose its place as the nation's top agricultural producer until the early twentieth-century, when heavily irrigated counties in the far west began to outproduce it. The *Lancaster County Farmers Directory* for 1909 listed the total agricultural wealth of Lancaster County as $20,767,146 and ranked first among the twelve most productive agricultural communities, ahead of second ranked McClellan County, Illinois and third ranked Los Angeles County, California. The 1910 Census, however, ranked Lancaster second in total production behind Los Angeles, ending Lancaster County's seventy year agricultural supremacy.[53] By the 1930s, the county fell from the list of top ten producers, yet it continues to lead the nation's non-irrigated counties and more than four hundred thousand acres remain in cultivation.

Lancaster County continued to lead Pennsylvania in total agricultural production, notably in crop and animal production. In 1900 Lancaster produced $9,210,825 in revenues. Its 9,437 farms produced 28,246,160 pounds of tobacco; 1,906,440 bushels of wheat; 1,058,170 bushels of oats; and 4,523,550 bushels of corn.[54] 1906 saw the creation of the Lancaster County Farmers' Association, a cooperative established to help local farmers compete in the national market.

The years prior to World War I were generally prosperous for Lancaster's farmers. The county as a whole was experiencing tremendous industrial growth. Armstrong Cork moved to Lancaster from Pittsburgh and merged with several local cork manufacturers in 1908; the Stehli Silk Mill, one of the largest in the world, was in operation in Manheim Township; the Hamilton Watch Company grew steadily after its organization in 1892; the Follmer, Clogg, and Company Umbrella Works was the nation's largest umbrella manufacturing plant; and the Herr Manufacturing Company, makers of the Serta mattress, was founded in 1906. In addition, the county was a major candy-making center, produced shoes, had a wide variety of metalworking establishments, and everything from soap to bricks were made in its factories. Even with its increasing agricultural production, reaching $32,191,563 by 1919, the county's industrial production by this time had a far greater impact at $112,000,000. The number of farms reached 11,307 in that year.[55]

This increasing industrialization, in part spurred by the development of a trolley system throughout the county by 1910, would begin to impact the county's agriculture. One major trend that started during World War I, and would become commonplace after the war, was the decline in the availability and use of day labor on Lancaster County farms. Prior to the War, many farmers employed day laborers from the city or surrounding countryside. The war itself took many of these men away, and most who returned joined others who had left to take higher paying jobs in local factories. With the development of public transportation, and the industrial growth the county experienced in the early twentieth century, industrial jobs gained increasing popularity. To some extent, the trend reversed itself after 1929, when the Depression put many of these same workers out of jobs and they returned to the farms; but the increasing mechanization of non-plain sect farms and the increasing population of plain sect farmers further reduced the demand for day laborers.

During the Depression of 1929 to 1934, land values and market prices for agricultural goods dropped to the extent that some farms lost as much as half their value by the end of the period. Average farm income in Lancaster Country dropped from three to four thousand dollars per year in 1927 to about eight hundred dollars in 1931.[56] Land values also declined, on average, from $9,052 per farm in 1930 to $6,782 by 1935.[57] Nature added its measure to these adverse conditions when the county suffered two severe droughts in the early 1930s. Sheriff's sales were a common occurrence.

Later in the Depression, Lancaster's farms regained much of their vigor. 1937 saw one of Lancaster's most productive years in more than a decade. Gideon Fisher, an Amish farmer, details the production at his eighty-six acre farm in 1937 in his book *Farm Life and Its Changes*:[58]

20 acres in wheat
22 acres in corn
5 acres in potatoes
3 acres in tobacco
4 acres in barley

14 acres in mixed hay
12 dairy cows
6 heifers
5 brood sows
250 laying hens
1 pair mules
3 draft horses
10 feeder steers

Fisher's farm machinery included a carriage, a McCormick mower, a McCormick riding cultivator, and a McCormick single cultivator.

Tobacco

Tobacco continued to be Lancaster County's most prominent crop between 1900 and 1945. According to "Tobacco Buildings in Lancaster City:"

> Between 1919 and 1940 the once-popular Pennsylvania Havana Seed, grown on the sand river bottoms and having a thin-bodied leaf when cured, declined substantially in importance. Pennsylvania Broadleaf or Seedleaf superseded it to become the primary type of tobacco grown in Lancaster County and the state. Lancaster County continued its dominance of Pennsylvania's tobacco production: in 1936 Pennsylvania produced 32,500,000 pounds of tobacco, of which Lancaster County produced 31,024,000 pounds or 96.4%, mainly the Pennsylvania Broadleaf or Seedleaf variety.[59]

Crops

The major development in crops in Lancaster County after 1900 was the growth in the production of corn as a feed crop for the county's increasing cattle and dairy production. Prior to 1900, corn was utilized primarily as a ripened grain or dry feed and afterward, silage of corn steadily increased. Technological advances and improved breeding, including most notably the development of hybrid seed corn, resulted in substantially increased corn production in Lancaster by the 1920s: from 3,260,080 bushels in 1890 to 5,840,368 bushels in 1922. One of County's major agricultural contributions occurred about 1911-1912 with the development of Lancaster Surecrop corn by Isaac Hershey, a Mennonite farmer. One of the three major lines of corn grown today is based on Lancaster Surecrop, which Hershey exported to farmers in other parts of the Unites States and North America. As a result of the increased production of corn, silos, which had been introduced in Lancaster County in the late 1800s, became commonplace after about 1920.[60]

Most Amish farmers in the early part of the twentieth century continued to practice a four crop rotation system, where hay was planted first, then corn, then tobacco in the following year, followed by wheat.[61] Increasingly, cattle, dairying, and the production of chickens took precedence.

Tobacco continued to be a leading cash crop throughout the twentieth century. Wheat production also diminished. Potatoes enjoyed a brief popularity among the county's farmers in the 1940s and 1950s.

Cattle

Lancaster County continued to be the largest cattle fattening center in the East, with cattle valued at more than $4,037,286 fed in 1910. Klein's 1924 history states: "In Lancaster County during the winter months there are made more pounds of beef from corn and other dried feeds, than in any other county in the United States." According to Klein, more than five thousand Lancaster County farmers "convert their corn, their hay and their fodder into beef from November 1 to June 1. Some of them feed thirty cattle, a few as many as forty cattle in one barn, but the greater number feed five or six head and the average, it is estimated, runs about nine head to each farmer." He further cites statistics from the 1922 Bureau of Statistics, Pennsylvania Department of Agriculture, showing 44,475 cattle with a value of $1,790,118.75. In 1922, 7,293 cars of cattle, 361 cars of hogs, twenty-two cars of sheep, and sixty-five cars of horses arrived and were sold at the Union Stockyards. Ten thousand head of Lancaster County cattle, worth $900,000, were shipped out through the stockyard that same year. In addition, Lancaster County farmers sold more than ten million pounds of hay and 6,500 bushels of corn to the stockyard to service the animals between the time of their arrival and departure. By the 1920s, more cattle were being winter-fed in Lancaster's stockyards than in any other location in America.[62]

Dairy Production

Countywide, production of dairy products increased substantially in the early twentieth century, even though local farmers experienced problems with bovine tuberculosis and its impact on milk markets in Lancaster and other cities. In 1893, efforts began in Pennsylvania to control the disease including the testing of herds. Lancaster farmers were generally opposed to mandatory testing from the outset. In 1926, the City of Lancaster, passed an ordinance similar to ones passed by Philadelphia and New York that required milk sold locally come from animals that had been tested and found free of the disease. Lancaster County farmers reacted by forming the Farmers' Protective Association, the intent of which was to overturn Lancaster City's ordinance. A decision by the Pennsylvania Supreme Court in 1927 upheld Lancaster City's ordinance and the rights of the municipalities to regulate milk. Afterward, acceptance of the state's testing programs gradually became commonplace in the County. Notably, the last holdout from the testing program in Pennsylvania was a Lancaster County farmer, who complied in 1935.[63]

Lancaster milk producers found additional outlets for their product. The rise of the local candy industry provided an important one. In 1922, Lancaster produced 3,504,500 pounds of candy, consuming the equivalent production of milk from two thousand farms. By 1940, Lancaster County led the state in dairy production and ranked seventh nationally. In addition, Lancaster County led the state in butter production from 1900 through 1940.[64]

Poultry

Prior to 1900, poultry was typically a small industry for most Pennsylvania farms. Between 1900 and 1915, the industry boomed, due to sustained high prices and the availability of better breeds of chickens. Virtually all of Lancaster County's dairy farmers also began to produce chickens. Advances in poultry husbandry continued to result in higher and higher production. By 1940, the county led the nation in poultry production. Chicken hatching became a specialized industry after 1910 with the invention of the mammoth incubator.

With the vast increases in the number of chickens on each farm, and the increased incidence of disease, they were no longer allowed to roam about the farmsteads as earlier flocks had done when they were primarily kept for domestic use. By 1934, poultry houses were common on farms throughout the county, often reaching three of four stories in height. Prior to 1920, chickens were primarily raised for egg production. Afterward, markets developed for poultry meat. Production of broilers became increasingly popular, especially after the development of the retail cut chicken trade after 1930. Accompanying the rise of chicken production was a corresponding increase in turkey production, which had all but ceased by 1910.[65] Both chickens and turkeys have remained important aspects of the county's agricultural production in the years since 1930.

The Stoltzfus farm in Leacock Township provides an example of the growing importance of poultry to the average local farmer. In the 1920s or 1930s, Jake Stoltzfus built a chicken house with a capacity of one hundred chickens. A subsequent owner of the farm, Christian Stoltzfus, added a second chicken house in the 1940s with a capacity of six hundred chickens. A twelve thousand cage chicken house was constructed in 1975.[66]

Lancaster County continued to be a leading producer of swine in Pennsylvania between 1900 and 1945, although its ranking had dropped to second behind York County by 1919.

Orchards and Truck Farming

Disease and insects began to become a significant problem in Lancaster County orchards after about 1920. By 1940, most small orchards were abandoned and replaced by a few commercial growers.

Increasing urbanization and industrialization resulted in truck farming becoming popular in the early part of the century, with small farms devoted to the raising of cash crops that could be sold from wagons, at market stands, or in the market houses of Lancaster City or the boroughs. Three market houses, the Central, Southern and Northern were popular in the city around the turn of the century in which producers could rent stands from which to sell their products.[67]

The Changing Farmstead

The changes in local agricultural production, notably the increases in cattle, dairy, and poultry, have resulted in both the adaptation of older structures and the construction of new ones. Cattle barns, additional dairy facilities, and chicken houses became commonplace. In addition, the increasing use of mechanized equipment, especially tractors and harvesting equipment since the 1930s, resulted in the need for adaptation of construction. Changes in regulations affecting the production of milk required farmers to construct separate milk houses for the cooling and separating milk.

Within the farmhouse, the introduction of electricity and modern appliances made summer kitchens and ground cellars largely obsolete by mid century. Likewise, the introduction of indoor plumbing resulted in the virtual abandonment of the outhouse.

Suburbanization

Increasing population and improved public and private transportation began a trend toward the systematic conversion of farmland for residential development in the twentieth century. In 1890, the Lancaster Street Railway Company was formed to electrify existing horse drawn trolleys that served the City of Lancaster and its immediate surroundings. By 1891, an article in the *Lancaster New Era* appeared describing the advantages of suburban living: "Lots are cheaper in the outskirts than nearer the center, and larger grounds can be secured for the same money...for (most) some easy distance from the dust and the din of the busy city is more desirable as well as healthier than the turmoil and heat of the thickly settled portion." By 1900, thirty-five miles of track serviced the Lancaster City area with commuter service to Columbia and Lititz. Within ten years one hundred and fifty miles of suburban tracks connected the city with all of the county's population centers. 1900 also saw the introduction of the automobile into Lancaster County, when the Hershey Chocolate Company, which was founded in the county, purchased one.[68] With the subsequent popularization of the automobile in the early twentieth century, residential developments outside Lancaster City and the county's numerous boroughs and villages became increasingly popular. Early developments such as North Lancaster, West Lancaster, and Fairview, offered free trolley or automobile rides to prospective purchasers.

By 1930, non-farm property values began to rise out of proportion to farm values. The average building value in Leacock Township, for instance, reached three-quarters of the average farm value. Farmland was becoming scarce and beginning to be overpriced for young farm families. The result was the beginning of the first appreciable out-migration of Lancaster County farmers, notably Amish and Mennonites, in search of land.

One non-farm development that did not materialize was the federal government's plan to acquire eleven thousand acres of land in the Donegal area on which to develop an explosives manufacturing facility. Frederic Klein provided this description of a meeting that occurred between local farmers and the War Department in 1942: "the Lancaster County farmers, [spoke] slowly and softly about the generations of families who had made the soil of this area more fertile and productive than that of any county in the nation." The farmers were successful in convincing the War Department to locate the plant elsewhere.[68]

Private Estates and Suburban Landmarks

The suburbanization that occurred in the county in the first half of the twentieth century was accompanied by a trend toward the conversion of farms and farmsteads into country or suburban estates and suburban residences. The most locally recognized conversion occurred in 1927, when James Hale Steinman, a prominent local businessman and newspaper magnate, acquired the former Hershey Farm on Marietta Avenue from School Lane Hills Inc. and converted it into his mansion complex, called Conestoga House. The Steinmans utilized the services of noted local architect Frank J. Everts, assisted by nationally acclaimed artist Charles Demuth, to transform the traditional Lancaster County farmhouse into a Colonial Revival style mansion retaining much of the character of its nineteenth-century design. The complex was further refined between 1937 and 1940 when the Philadelphia firm of Mellor and Meigs designed the present formal gardens, outbuildings, stables, garages, and other exterior features.[70] Other farms have been converted for use as "gentleman" farms or country estates, where commercial agriculture is either no longer practiced or is secondary to the primarily residential or resort activities of the property. Within suburban developments, especially those created in the early twentieth century, farmhouses and occasionally their associated outbuildings, have often been retained as single family residences or as centers for community activities.

A CHANGING LANDSCAPE, 1945 - PRESENT

The end of World War II marked a turning point in Lancaster County's history. The Post-War Planning Council, created in 1943, marked the beginning of planning for the expansion of urban facilities, principally water and sewer lines and roads, into the rural areas of the county. Increased demand for housing, fueled

by federally-assisted mortgages from the Federal Housing Administration and the Veteran's Administration, resulted in rapid suburban development in the late 1940s and 1950s. Retail, banking, and transportation facilities in the center city were gradually disbursed throughout the county. According to the Lancaster County Planning Commission, "by 1954, there were more than 100 homes being built in Lancaster County each month."[71]

In 1940 Lancaster recorded 8,823 farms, the first time since the eighteenth century the number of farms in the county actually decreased. Since 1940, the downward trend continued steadily:

Number of Lancaster Farms 1945 - 1987

Year	# of Farms	Acres in Farms
1945	8,823	509,424
1950	7,952	495,500
1954	7,951	498,206
1959	7,043	482.579
1964	6,247	467,325
1969	5,323	426,100
1978	4,915	425,561
1987	4,775	403,964

Even with this decline, the county continued to lead the state in value of production: $335,180,200 in 1975 and ranked twelfth in the nation among all counties and first among non-irrigated counties.[72]

By 1975, livestock and dairy and poultry products accounted for almost three-quarters of the county's total agricultural output, with dairy products alone accounting for twenty five percent of the total.[73]

Selected Lancaster County Agricultural Statistics, 1975

Commodity	Value	State Rank
Dairy Products	83,375,000	1
Cattle/calves	81,857,800	1
Layers/eggs	37,564,000	1
Poultry Broiler	32,057,000	1
Corn-Grain	26,803,000	n/a
Silage	20,487,000	n/a
Tobacco	20,295,170	n/a
Hay	14,653,000	n/a
Hogs	12,213,600	1

Wheat	3,334,060	n/a
Vegetables	2,525,700	n/a
Fruit	962,000	n/a
Sheep	255,100	3

In recent decades, growing suburbanization has had a dramatic impact on Lancaster County. More than ninety-two thousand acres of farmland have yielded to development since 1959. Since the late 1970s, the trend has accelerated. With one of Pennsylvania's fastest growing populations, the county lost fifteen thousand acres to development in 1987 and 1988 alone.[74] Since 1980, according to the Lancaster County Planning Commission: "approximately 4,800 acres of land have been approved for development every year. This translates into 68 square miles of land over a ten year period to accommodate approximately 60,000 people. In contrast, Lancaster City accommodates approximately 60,000 people on only 7 square miles of land.[75] Since 1959, the county has lost an average of eight acres of farmland per day.[76]

Preservation and Community Planning

In his *Lancaster County 1841-1941*, Frederic S. Klein described remarks made by William Uhler Hensel before the Lancaster Board of Trade in 1900: "[If] Lancaster County made the same strides in the coming century that it had made in the past one, a hundred years hence we would have a population of 1,100,000, Columbia would be an annex and Philadelphia a suburb."[77] While the realization of Hensel's vision appears unlikely, the changes it envisioned for the county have become partially true. Population grew from about 320,000 in 1970 to 422,822 in 1990 and is predicted to exceed 540,000 by 2010. Lancaster and Columbia, while not annexed to one another, are rapidly being joined by suburban development. And rather than Philadelphia being Lancaster County's suburb, Lancaster County has become a home for commuter residents to and from metropolitan Philadelphia, Chester County, and Harrisburg.

In recent years the Lancaster community has focused a great deal of attention on reversing the trend toward scattered, unplanned suburban sprawl. In 1975, the Lancaster County Planning Commission issued a comprehensive plan for the county that called for improved growth management to prevent the irretrievable loss of prime farmland and historic character.[78] The Commission is currently developing a sweeping and innovative growth management strategy.

Farmland preservation has recently become both very successful and very popular and has included noteworthy private, non-profit, and governmental activity. Lancaster County established the Lancaster County Agricultural Preserve Board in 1980. This governmental effort was supplemented in 1985 by the formation of a private, non-profit organization to promote farmland preservation. In addition to its advocacy role, the organization, now known as Lancaster Farmland Trust, has also been actively pursuing permanent agricultural easements. Between the two entities, more than sixteen thousand acres were preserved through easement by 1993. In addition, most local municipalities now have some form of effective agricultural zon-

ing to promote the continuance of farming. As a result of these efforts, there is an excellent chance that at least a sense of Lancaster County's traditional agricultural character will survive.

The Historic Preservation Trust of Lancaster County, founded in 1966 as a countywide advocate for historic preservation, has in recent years focused greater attention on the rural cultural resources of the county. Through its Rural Preservation Project, under which this nomination has been completed, and by cooperating with elected officials, the Lancaster County Planning Commission, the Lancaster Farmland Trust, and other interests, attention is being focused on the national significance of the county's agricultural heritage as it is expressed in the built environment.

Notes:

[1] A precise origin for this nickname has never been fully documented. Pennsylvania was often referred to in early accounts as the "Granary to the Colonies." Reference to the use of the title "Garden Spot of America" for Lancaster County can be dated to at least 1853, when Eli Bowen's *The Pictorial Sketch-Book of Pennsylvania* states: "An intelligent Englishman called this county the 'Garden of America,...' [it] is, without a doubt, the garden of this glorious Union, and there are few spots in this wide, wide world, which could present a nobler scene to the eye than is here afforded."; Eli Bowen, *The Pictorial Sketch-Book of Pennsylvania* (Philadelphia: William Bromwell, 1853), p. 31.

[2] The term "Pennsylvania Dutch" is actually a misnomer that came into common use at least by the latter nineteenth century. The term appears to have originated from the mispronunciation of "Pennsylvania Deutsch" which refers to the county's large Pennsylvania German community. It is also important to point out the distinction between Pennsylvania Germans and German Americans. The earliest migrations of Europeans from what is now Germany began to arrive in Lancaster County in the early eighteenth century and developed a Germanic culture that actually predated the rise of German nationalism. Pennsylvania Germans developed many of their own traditions and dialects. As Germany began to take on the aspects of a unified nation in the nineteenth century, later immigrants from the region arrived with a more unified cultural tradition and formed the group we refer to as German-Americans.

[3] H. M. J. Klein, Ph.D., ed., *Lancaster County Pennsylvania: A History* (New York: Lewis Historical Publishing Co., Inc., 1924), p. 4.

[4] John Fraser Hart, The Land That Feeds Us (New York: W. W. Norton & Company, 1992), p. 20.

[5] Franklin Ellis and Samuel Evans, *History of Lancaster County. Pennsylvania.* 2 Volumes (Philadelphia: Everts and Peck, 1883), Volume I, pp. 6-18.

[6] Stevenson Whitcomb Fletcher, *Pennsylvania Agriculture and Country Life 1640- 1840* (Harrisburg, PA: Pennsylvania Historical and Museum Commission, 1971) , p. 4

[7] The Anabaptist movement developed in the sixteenth century, a time of significant social and religious transformation. John A. Hostetler provides a succinct description of the roots of the Mennonite, and subsequently the Amish, sect in *Amish Society* (Baltimore: The Johns Hopkins University Press, 1980), pp. 25-27. Hostetler cites the development of the printing press and the resultant widespread availability of printed Bibles as a contributing factor to a "rising rebellion against old systems of authority." From this rebellion rose Martin Luther, founder of what would become the Lutheran Church, Ulrich Zwingl, John Calvin, and other Protestant reformers. Yet others sought even more sweeping changes and, Hostetler states, "Those seeking [to] 'reform the reformers, were called Anabaptists." The major tenet of the Anabaptists was the "rejection of infant baptism," viewing it as unnecessary, since children were not yet capable of discerning between good and evil. For additional background on the development of the Mennonite and Amish sects, see also Donald B. Kraybill's *The Riddle of Amish Culture* (Baltimore: The Johns Hopkins University Press, 1989), pp. 1-8.

[8] Ellis and Evans, pp. 9, 324-337;

[9] Ellis and Evans, pp. 9; J. Russell Cross, *Historic Ramblin's through Berkeley* (Columbia, S.C.: The R. L. Bryan Co., 1985), pp. 106-117.

[10] H. M. J. Klein, p. 16.

[11] Ellis and Evans, pp. 9-10.

[12] Kraybill, p. 8.

[13] Ellis and Evans, p. 345.

[14] Ivan Glick, "The Story of Barns," *Ford New Holland News.* June 1991, pp. 6-22.

[15] Fletcher, pp. 127-139.

[16] Fletcher, p. 133; "Valley of the Pequea" probably refers to the area of present-day Upper Leacock or Earl Townships.

[17] Ellis and Evans, p. 348-351.

[18] Fletcher, p. 123.

[19] Lemon, p. 79.

[20] Fletcher, p. 57.

[21] Berks County Conservancy, "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places, 1992, p. E-6.

[22] Fletcher, p. 199-200.

[23] Fletcher, p. 117.

[24] Ellis and Evans, pp. 301-305; Historic Resource Survey files for Hopewell Forge, Speedwell Forge, Windsor Forge, and Martic Forge, Historic Preservation Trust of Lancaster County.

[25] Arthur C. Lord, "Architectural Characteristics of Houses: Lancaster County, pp. 132-151.

[26] H. M. J. Klein, p. 660; U. S. Census statistics.

[27] Hart, p. 25.

[28] Ellis and Evans, p. 350.

[29] Ellis and Evans, p. 351.

[30] Worner, pp. 99-100

[31] Hart, pp. 21-22.

[32] Fletcher, p. 181.

[33] H. M. J. Klein, p. 667.

[34] Fletcher, p. 187-188.

[35] H. M. J. Klein, p. 667.

[36] Frederic Klein, p. 18.

[37] A major work on the history of the tobacco industry is Willis N. Baer, Ph.D., *The Economic Development of the Cigar Industry in the United States* (Lancaster, PA: n.p., 1933); on p. 2#, Baer discusses the early type of tobacco raised. For an excellent study of tobacco culture, processing, warehouse practices, see William Frear, Ph.D., "The Cigar Tobacco Industry in Pennsylvania," Pennsylvania Dept. of Agriculture, General Bulletin No. 371 (1922), in Bulletins, 5 (Nos. 364-371; PA 12) on file at the State Library of Pennsylvania, Government Publications Division; also very useful is Horace Richards Barnes, "Early History of Tobacco," in Papers of the Lancaster County Historical Society, 45 (1942): 1-24, 6; for a summary, see Fletcher, 165-6.

[38] Fletcher, 166; Ellis and Evans, 355; Baer, 38.

[39] Baer, 37-8; Good, 194-7; see also the National Register nominations for the North Prince Street Historic District, the North Charlotte Street Historic District, and the Nissley-Stauffer Tobacco Warehouses, all Lancaster City. Figures for Lancaster County tobacco yields vary somewhat depending on the source, but in general appear reliable; figures for 1936 are from Barnes, 7, citing the Yearbook of Agriculture, 1935; figures for 1987 are from John Clements, Flying the Colors: PA Facts, 168.

[40] Barnes, 14, citing *The Lancaster Farmer*, XV, 2 (Feb. 1883), 23; Ellis and Evans, I:355.

[41] Good, 196-7.

[42] Special thanks to Geoffrey H. Ranck of Domestic Tobacco Co., Lancaster, PA, who provided much information on the growing, curing, and packing of leaf tobacco, as well as the fermenting and repacking at the warehouse (below); telephone conversations with Gloria 0. Becker, Ph.D., 1989. Also, Joe Fanelli, Packing Manager, Lancaster Leaf Co., was very helpful in sharing information about the leaf packing process and in particular, about the buildings at 850 N. Water Street; further useful information on drying and curing of tobacco is in Frear, 28-62.

[43] H. M. J. Klein, p. 662.

[44] Fletcher, p. 257.

[45] 1860 and 1870 Census statistics.

[46] Fletcher, p. 165.

[47] Fletcher, p. 167.

[48] Fletcher, p. 183.

[49] Fletcher, p. 185.

[50] Frederic Klein, p. 19.

[51] Fletcher, p. 54.

[52] Gideon L. Fisher, *Farm Life and its Changes* (Gordonville, PA: Pequea Publishers, 1978), p. 52

[53] Lancaster County Farmers Directory for 1909; Frederic Klein noted the comparison in size between Lancaster at 4,202 square miles and Los Angeles County at 7,326 square miles (Frederic Klein, p. 87).

[54] 1900 Census.

[55] Frederic Shriver Klein, *Lancaster County 1841-1941* (Lancaster, PA: Intelligencer Printing, 1941), pp. 154-155.

[56] Fisher, p. 16.

[57] Frederic Klein, p. 186.

[58] Fisher, p. 45.

[59] Baer, 37-8; Good, 194-7; see also the National Register nominations for the North Prince Street Historic District, the North Charlotte Street Historic District, and the Nissley-Stauffer Tobacco Warehouses, all Lancaster City. Figures for Lancaster County tobacco yields vary somewhat depending on the source, but in general appear reliable; figures for 1936 are from Barnes, 7, citing the Yearbook of Agriculture, 1935; figures for 1987 are from John Clements, Flying the Colors: PA Facts, 168; in 1987 Lancaster County still ranked first in the state for the production of tobacco.)

[60] Fletcher, pp. 119-126; Interview, Steven Miller, Pennsylvania Farm Museum at Landis Valley, Lancaster, PA, 25 March 1994.

[61] Stephen Scott, *Amish Houses and Barns* (Intercourse, PA: Good Books, 1992), p. 68.

[62] H. M. J. Klein, p. 667.

[63] Fletcher, pp. 207-210.

[64] H. M. J. Klein, p. 678; Fletcher, p. 234.

[65] Fletcher, pp. 239-255.

[66] Scott, pp. 74, 78-80.

[67] In 1993, only Central Market remains in active use as such a market.

[68] Gary Hovinen, "Lancaster's Streetcar Suburbs, 1890-1920," *Journal of the Lancaster County Historical Society*. Vol. 82 (1978), pp. 50-51; Frederic Klein, p. 118-119.

[69] Frederic Klein, p. 196-197.

[70] Historic Preservation Trust of Lancaster County, Historic Sites Survey Files, "Conestoga House,# research by John J. Snyder, 1981.

[71] Lancaster County Planning Commission. *Lancaster County Comprehensive Plan: Growth Management Plan* (Lancaster PA: Lancaster County Planning Commission, Draft, January 1992), p. 5.

[72] Lancaster Tomorrow Group, *Lancaster Today: A Description of Community Life* (Lancaster PA: The Lancaster Tomorrow Group, 1977) p. 26.

[73] Lancaster Tomorrow Group, p. 26.

[74] Ed Klimuska, "Lancaster County: The (Ex?) Garden Spot of America," *Lancaster (PA) New Era*, 1988, referenced in John A. Hostetler, "Toward Responsible Growth and Stewardship of Lancaster County's Landscape," *Pennsylvania Mennonite Heritage*, Vol. XII, No. 3 (July 1989), p. 3.

[75] Lancaster County Planning Commission. *Lancaster County Comprehensive Plan: Policy Plan* (Lancaster PA: Lancaster County Planning Commission, 1991), p. 3.

[76] Lancaster County Planning Commission. *Lancaster County Comprehensive Plan: Growth Management Plan* (Lancaster PA: Lancaster County Planning Commission, Draft, April 1993), p. 3.

[77] Frederick Klein, p. 113.

[78] Lancaster County Planning Commission, *Directions: A Comprehensive Plan for Lancaster County, Pennsylvania* (Lancaster, PA: Lancaster County Planning Commission, 1975), pp. 1-5.

The property type described in this nomination is "the farm." For purposes of this nomination, the definition of "The Farm," developed for the "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places will be used: "The farm consists of land and land forms, buildings and structures utilized by man for the production of agricultural goods,....the farm is commonly a "family farm", operated by the members of a family working as a cooperative unit. The farm includes a combination of natural and cultural or man-made features, such as cropland, woodland, wetland and waterways with different topographical and soil characteristics, as well as fences, roads, lanes, bridges, lime kilns, walls, springs, ponds, contour strips, ditches, terraces and groups of buildings for domestic and agricultural use. Each farm is unique in its physical and cultural features, its history and its current use. Although some farms are representative of a period of architecture or a type of use, most farms exhibit a combination of periods and types, and an evolution of farming customs and practices." Lancaster County farms follow this definition closely.

As in Berks County, even though early settlement in Lancaster County was multi-cultural, the Pennsylvania German farm form serves as the primary model for the description of the farm in Lancaster County. The following discussion relies heavily on extensive documentation available through the following sources: Amos Long, *The Pennsylvania German Family Farm* (1971) and its adaptation to the "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places;"[1] Robert Ensminger, *The Pennsylvania Barn* (1991); and Joseph Glass, *The Pennsylvania Culture Region: A View from the Barn* (1986). The following descriptions of the various components of farm units in Lancaster County have been developed from these studies, coupled with analysis of the Lancaster County Historic Sites Survey. Significant ethnic, technological, or other variations to these models will be described where they occur.

The Farmstead

On most Lancaster County farms, both domestic and agricultural buildings and structures are centralized in a relatively close-knit complex, referred to here as a farmstead. The location of the farmstead on the farm unit varies by farm and is based on topography, road access, and other considerations. A typical Lancaster County farmstead consists of a farmhouse, barn, other outbuildings serving both domestic and agricultural functions, yards, gardens, and roadways, paths and other circulation patterns. In Lancaster County, farmsteads are often not delineated from adjoining croplands, orchards, and occasional woodlots except by minimal fencing, ditches, or landscape features.

The principal structures within a farmstead are the farmhouse and the barn. Outbuildings serving domestic functions, such as tenant houses, springhouses, kitchens (out kitchens and summer kitchens), bakeovens, root cellars, distilleries, smokehouses, woodsheds, privies, washhouses, butcherhouses, and pumphouses, are generally clustered around the farmhouse and its immediate yard. Farming-related outbuildings, in-

cluding tobacco barns, hay barns, wagonsheds, carriage houses, toolsheds, pigpens, chicken houses, sheepfolds, corncribs, and milkhouses, tend to be sited around the barn. Additional features, such as lime kilns and family burial grounds, tend to be located within the farmland, often some distance from the farmstead.

Among the site characteristics that influenced the location of farms and the placement of buildings were topography, orientation to transportation routes, access to roads and fields, and the availability of fresh water supplies. Sloping sites provided drainage of water away from buildings and influenced the siting of buildings, as did the location of springs and streams over which houses were often built to provide an elementary form of interior refrigeration.

The number, size, and function of buildings varies with the size and type of farm and its evolution over time. Arrangement of buildings within the farmsteads is a product of the original owner's concepts of what would prove most productive, and alterations to that layout made by subsequent owners, and varies based upon site conditions. Symmetrical layouts, irregular ones, as well as linear placements are common. While barns are often the most substantial buildings within the farmstead, farmhouses are typically the visual focus. This is often accomplished by the placement of the house closer to the road, in a central location, on a higher elevation, etc. Barns and farmhouses are often sited with their roof ridges parallel to one another, although perpendicular, and angled placements are common.

In more recent times, a variety of additional farm structures, such as silos, manure handling and storage facilities, and equipment sheds have been added to meet changing technological conditions. The adaptation of Lancaster County farms to technological and market changes over the past two centuries has resulted in its continued present day economic viability. This is an integral part of their significance that is represented in the evolutionary character of most farms and their buildings.

The Farmhouse

The farmhouse serves as the principal dwelling unit on the farm. Unlike the evolving function of other farm structures, the principal function of the farmhouse as a residence for the farm family has generally remained constant in Lancaster County, where most farms continue to be family farms.

In Lancaster County, farmhouses remain from all periods of the county's history. The earliest farmhouses tend to reflect relatively undiluted architectural influences of the ethnic groups that created them. However, many of the surviving examples have also been extensively altered. Among the earliest farmhouses recorded in the Lancaster County Historic Sites Survey are a number of log dwellings, many of which have been incorporated into larger evolutionary houses or concealed behind later finishes and architectural em-

bellishments. Among the county's early log buildings retaining their historic exterior appearance is the Mathias Slaymaker House (circa 1710) in Paradise Township.

In 1981, the *Journal of the Lancaster County Historical Society* published Arthur C. Lord's analysis of the Direct Tax of 1798 as it applied to housing. The tax lists studied covered most of the western half of the county. According to Lord's findings, more than forty percent of the houses outside Lancaster City were constructed of log, approximately forty to forty-five percent were stone, ten to fifteen percent were brick, and five to ten percent were frame. More than seventy percent were one story in height and their average size was less than seven hundred square feet. While these statistics seem to indicate the relative rarity of substantial farmhouses, the numbers of larger stone and brick houses in the nine present day townships covered by the study are impressive: 488 stone houses, 78 brick houses, and 536 multistory houses.[2]

Germanic: The Hans (or Christian) Herr House (1719; National Register) near Willow Street, now restored as a museum, reflects the architecture of the county's early German settlers. Stylistic characteristics of early Germanic houses illustrated in the Herr House include a steeply pitched roof, central chimney, and small casement windows. Traditional floorplans of Germanic houses typically included a *Küche* (kitchen), *Stube* (stoveroom, parlor/meeting room), *Kammer* (bed chamber), and often an *Arbeitsraum* (workroom). Perhaps the most recognized arrangement of spaces in Lancaster County Germanic style houses is the *Ernhaus* plan, also referred to as the *Flurküchen* plan, which consisted of three, or in the case of the Herr House, four rooms: a Küche with a large central "walk-in" fireplace forming approximately one-half of the house, a Stube and a Kammer forming the other half, and an occasional fourth room partitioned from the Küche, as found in the Herr House (see Figure 2.1, page F-2, 22 on page 63).[3] Other room arrangements have been documented in Lancaster County. Among them is the *Durchgängigen Haus* plan, as illustrated by the Johannes Hess House (circa 1744) in Warwick Township, with a central hallway flanked by a Küche and Arbeitsraum and a Stube and Kammer. Other early Germanic farmhouses include the Abraham Herr House (circa 1725) in Lancaster Township; the Theodorus Eby House (circa 1735) in Earl Township; the Martin Weybrecht House (circa 1741) in Manheim Township; the John Musser House (circa 1744) in Manor Township; the Benedict Eshleman House (circa 1759) in Conestoga Township; the Isaac Long Farmhouse (circa 1760) in Manheim Township; and the Christian Stauffer House (circa 1767, National Register) in East Lampeter Township. The Frederick White House in Paradise Township, while essentially Germanic in style, retains several distinctive characteristics reported to be of Huguenot influence, notably its double pegged window casing joinery detail.

English: English style farmhouses differed stylistically from their German counterparts in that they were typically long and narrow, often only one room deep, had low-pitched gable roofs with gable end chimneys, and double-hung sash windows. The William Downing House (circa 1747) in Bart Township, built for a Quaker miller in 1747 is an example of this style. The Stubbs-Cutler House (circa 1767) in Drumore

Township is another English style farmhouse. The David Davis House, in Earl Township, is representative of a stylistic blend of features common to both German and English forms, having been constructed for a Welsh farmer and soon thereafter converted by Pennsylvania Germans.

During the mid to late eighteenth century, the distinctions between Germanic and traditional English styles diminished as aspects of each were accepted by the other. Farmhouses in rural Lancaster County during the mid to late eighteenth-century period tended to be larger than their predecessors, generally reflecting the increased prosperity of Lancaster County agriculture. Typically, surviving farmhouses constructed during the period are two and one half stories tall, four to five bays wide, and two bays deep, yet are typically relatively conservative stylistically.

Georgian: The Georgian style began to have influence in Lancaster County by about 1760 and lasted until the transition to the Federal style at the end of the century. Based on high style English architecture of the period, common elements of Georgian farmhouses in Lancaster County include both interior and exterior symmetry, elevations of between three and five bays width, and heights of two to three stories. Typical Georgian exterior ornamentation and features are found, such as flat arches over doors ad windows, belt courses between upper floor levels, water tables, and pedimented doorways. The typical interior plan of local Georgian style houses includes four rooms per floor with a central stair hall.

While high style examples are found, such as in Rock Ford, the home of Revolutionary War General Edward Hand (circa 1792, National Register), most Georgian houses in Lancaster County are vernacular interpretations of the style that often incorporate other stylistic influence. Most notable among these influences are the introduction of Germanic details, resulting from the adoption of the Georgian style by farmers of German lineage. Among the common examples of this are the use of datestones, the presence of Germanic style bakeovens, and the presence of various Germanic decorative arts. Another variation is the so-called "two-thirds" Georgian style of the Quaker community that, although Georgian in character, lacks its traditional symmetry.

Additional examples of the Georgian style include: the John Jenkins Farmhouse (circa 1775) in Caernarvon Township; the Michael Baughman Farmhouse (circa 1790) in East Hempfield Township; the Jacob John Mohler Farmhouse (circa 1794) in Ephrata Township; the Wendell Hibschman Farmhouse (circa 1801) in Ephrata Township; the Abraham Landis Farmhouse (circa 1763) in East Lampeter Township; and the Andreas Graeff Farmhouse (circa 1767) in Lancaster Township.

There are also a number of farmhouses that represent the stylistic transition between the Federal and Georgian styles in Lancaster County in the late 1700s. Examples include the Philip Friedrich Farmhouse (circa 1797) in Warwick Township, which has a classic Georgian exterior with Federal interior details, and

the John Haldeman Mansion (pre-1798, also called "Locust Grove," National Register) in Conoy Township.

Federal: By the late 1790s, the Federal style became popular in Lancaster County and continued to be popular through the first third of the 1800s. The period immediately following the creation of the United States saw building designers seek to develop a national style that reflected our indigenous materials, the importance of the common man, and a need to exercise a certain economy in construction and ornamentation. The resulting Federal style was well suited to Lancaster County farmers who continued to use local materials and whose cultural patterns often found architectural expression in simplicity of construction and a rather restrained use of ornamentation. Many Lancaster County farmhouses retained the basic Georgian house form, including the four room plan, central hallway, and symmetrical facade. To this form they added Federal style details, sometimes sophisticated but most often simplified, and the continuation of cross-cultural influences that had been common during the Georgian period.

President James Buchanan's farmhouse at Wheatland (circa 1828, National Historic Landmark) is a recognized local example of the Federal style. Other Lancaster County examples include: the Peter Elser House (circa 1807) in Clay Township; the Nissley Farmhouse (circa 1811) in Rapho Township; the Henry Hertzler House (circa 1813) in Rapho Township; the John Pfautz Farmhouse (1813) in Warwick Township; the John Keller Farmhouse (circa 1813) in Ephrata Township; the Jacob Kirk mansion (circa 1815, National Register) in Little Britain Township; and the Jacob Keller Farmhouse (circa 1820) in Ephrata Township.

Pennsylvania Style: By the first third of the nineteenth century, a vernacular style, referred to here as the "Pennsylvania style," developed as a recognizable form throughout Lancaster County and the southeastern Pennsylvania region. Rooted in the symmetry of the Georgian style, the earliest Pennsylvania farmhouses are vernacular interpretations of the carry-over of its four room plan, central stairhall, and symmetrical facade into the Federal period. As the Pennsylvania style developed and flourished throughout the nineteenth and early twentieth centuries, it became, in essence, a vernacular platform upon which details from other architectural styles, first the Federal, then the Greek Revival, and later the Victorian, were applied. Pennsylvania style farmhouses are therefore identifiable more by massing, fenestration, and floorplan, than by stylistic features. Among the traits common to all examples of the style are: a rectangular, often square or almost square, core shape; a lateral gable roof over the core; two and one half stories; and a symmetrical facade of three, four, or five bays in width. The four room plan of the Georgian and Federal periods is typically continued, although stair location varies widely and the stairhall is often deleted in favor of a simple closed stair.

The most common materials are stone or brick, with frame and log examples also found. Other features typical to the style are the use of datestones, often listing the original owners of the house, and bell cupo-

las, in which a farm bell was hung. Many examples have original or later wings, typically placed as a rear ell, a recessed side wing with a front porch, or a rear tee. Entrance placement varies extensively, although the majority of documented four bay Lancaster County examples have paired central entrances and the majority of five bay examples have single central entrances. Enclosed stairs located toward the rear of the house are prevalent, but other placements, including central and side hall examples, are documented.

Because the Pennsylvania style began as a vernacular form of the Federal style, early examples can overlap both styles. The John Pfautz House in Warwick Township is a Federal style house that shares the basic characteristics of the Pennsylvania style. The more vernacular character of the Michael Schindel House (1816), in Manor Township, illustrates the divergence of the Pennsylvania style, with its simplicity of detail and the addition of a recessed side wing. Other examples of early Pennsylvania style farmhouses exhibiting Federal style details are: the John Weidler Farmhouse (1813), in Manheim Township; the John Herr Farmhouse (1813), in Manor Township; and the Jacob Seigrist Farmhouse (1816), in Manor Township.

As the Federal style waned in popularity, both nationally and locally, the Pennsylvania style became more recognizable as a distinct form. The basic rectangular core, with its two and one-half story height, symmetrical facade, and four room plan remained constant. Details of individual farmhouses were often influenced by the architectural styles popular at the time of their construction and the level of ornamentation varied greatly. While the most recognizable Pennsylvania style farmhouses tend to be simply detailed, it is also common to find examples with elaborate Greek Revival or Victorian elements.

The William and Mary Smith Farmhouse (1853) in East Hempfield Township is typical of the style (see Figure 2.1, page F-2, 22 on page 63). A sampling of other examples includes: the Shreiner Farmhouse (circa 1828) in Manheim Township; the Joseph Good Farmhouse (circa 1836) in Pequea Township; and the John and Susan Eshleman Farmhouse (1851) and the Habecker Farmhouse (1878), in East Hempfield Township. At least one six bay example of the style has been documented in the Charles Bamford Farmhouse (ca. 1860) in East Hempfield Township, which also exhibits both Greek Revival and Victorian stylistic elements. An interesting example of a late nineteenth-century conversion of a Germanic style farmhouse into a Pennsylvania style farmhouse has been documented in the Peter and Catharina Reyer Farmhouse (1792, circa 1880), in Ephrata Township.

The "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places identifies these common farmhouses as "Pennsylvania German" style buildings because of their retention of basic elements of Pennsylvania German craftsmanship.[4] Yet farmhouses of this type were built by non-Pennsylvania Germans and the style is rooted in both English Georgian and American Federal styles. Other writers, notable Henry Glassie and Allen Noble, have referred to these houses as simply "four over four" in reference to their basic floorplan, but such a description is also applicable to high style examples of both the Georgian and Federal styles. Joseph Glass, who identified a number of the characteristics of these farmhous-

es in *The Pennsylvania Culture Region*, all of which are well represented in Lancaster County, does not assign a specific name to the style.[5] In, *Architecture of the Pennsylvania Dutch Country, 1700-1900*, Henry Kauffman includes several Pennsylvania style examples in his "Post Georgian style," but at least three of the houses in his subsequent chapter on the Victorian style are similar to the Pennsylvania style.[6] The choice of the term "Pennsylvania style" here therefore reflects the origin of the style as a vernacular tradition that developed as a distinct form in southeastern Pennsylvania and spread to other regions, in much the same manner as the more widely recognized Pennsylvania barn.

Greek Revival: No farming-related examples of high style Greek Revival architecture have been identified in the Lancaster County Historic Sites Survey. The Leaman Mansion in Paradise Township, the county's primary example of the columned Greek Revival style, was built for a doctor and was later acquired by a gentleman farmer. While pure examples of the Greek Revival style are rare, Greek Revival examples of the vernacular Pennsylvania style continued to be popular throughout the the nineteenth century. For example, the Christian O. Herr House (1860) in Manor Township retained a particularly noteworthy Greek Revival style entrance until it was demolished in 1992.

Victorian: The broad range of Victorian styles became popular in Lancaster County in the late nineteenth century. Second Empire, Italianate, Gothic Revival, and Queen Anne style farmhouses are found, as are eclectic examples mixing stylistic elements and Pennsylvania style farmhouses utilizing ornamentation and features from each of the Victorian styles. As in past stylistic periods, ornamentation in most Lancaster County farmhouses is most often quite restrained, although high style examples are occasionally found.

The Second Empire style, typified by the use of a Mansard roof, found acceptance locally primarily from circa 1860 to 1900 and is represented by houses such as the Burkholder-Rush Farmhouse (circa 1875), in Pequea Township, and the Watts Mansion (circa 1873-1874), in East Donegal Township. The David Mayer Farmhouse (circa 1870), in Manheim Township, is a particularly good example of the Italianate style, which began to become popular in the 1850s and continued to be used to the turn of the century. Among the other Italianate style farmhouses in the county are the Bausman farmhouse (1879) in Lancaster Township and the L. R. Reist Farmhouse (1875) in Manheim Township. The Gothic Revival style was popular in Lancaster County from the 1840s through the 1870s. The Silas Eshelman Farmhouse (circa 18700, in Paradise Township, is a frame Gothic Revival style dwelling with Italianate elements. The Mellinger Farmhouse (1893) in Manor Township is a good example of the Queen Anne style.

Often details and elements from a variety of Victorian styles are found within a single farmhouse. The John Kendig Mansion (circa 1874-1886) in West Lampeter Township is such a high Victorian eclectic design. Among the Pennsylvania style farmhouses exhibiting Victorian details are: the Christian Herr Farm-

house (1864) in East Lampeter Township; the Abraham Brubaker Farmhouse (1876) in East Hempfield Township; and the Daniel and Margreda Weldy Farmhouse (1901), in West Hempfield Township.

Twentieth Century: Early twentieth-century architectural styles are also represented in Lancaster County farmhouses, although somewhat infrequently. Variations of the American Foursquare and other simplified Victorian derivatives are found, as are Craftsman and Bungalow style houses. In addition, there are also a number of early twentieth-century houses constructed of patterned concrete block. An example of an early twentieth-century Lancaster farmhouse is the Shenk Farmhouse (1901) in Manor Township. The John Brenneman Farm (1900), in Pequea Township, is representative of a simple early twentieth-century patterned block farmhouse.

The Barn

Germanic Barns, by Robert Ensminger: The paragraphs below are reprinted and edited from the "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places by permission of Mr. Ensminger and the Berks County Conservancy.

> In the early eighteenth century, permanent barn structures were built in Lancaster County by Germanic pioneers. These early types were modeled after similar structures from their European homelands. The earliest barns were small and simple and consisted of a single log crib plus various attached sheds. They could house some cattle, feed, grains and a few hand implements.
>
> This standard ground barn plan soon replaced the small first generation pioneer barns. This barn had two log cribs separated by a central threshing floor combined under a gable roof. The ground level of each log crib provided stabling space while the space above the stables and beneath the roof provided storage for hay and straw. This multiple purpose ground level barn, or *Grundscheier*, was modeled after similar structures common in the German Palatinate whose masonry and half-timbering were the common materials of construction. The almost universal use of log construction was most appropriate on the Pennsylvania frontier where the precedent had already been effectively established by earlier Swedish settlers in the lower Delaware Valley who passed on the technology to Germanic pioneers who moved farther inland.
>
> Germanic settlers from eastern Switzerland introduced the log, two-level, banked, forebay barn during the same period when the Grundscheier was introduced. The Pennsylvania version closely resembled its Swiss prototype from Pratigau in Canton Graubunden. The upper

level had two log crib mows and central threshing floor accessed by a ramp or bank on the back side. A forebay extended from this level six to eight feet beyond the lower stable front wall providing protection for the stable doors below. Commonly called the "Sweitzer" barn, this structure was characterized by an unsupported, cantilevered forebay which also provided a diagnostic asymmetrical gable end configuration. Both the Grundscheier and Sweitzer barn were commonly built in all Germanic regions of southeastern Pennsylvania.

During the latter part of the eighteenth century, commercial farming gradually replaced subsistence agriculture in southeastern Pennsylvania. Regional commercial market towns, such as Lancaster and Reading, and the development of an interconnecting road net focused on Philadelphia, stimulated the expansion of commercial agriculture and the evolution of larger barns. Sweitzer barns displaced the smaller Grudscheier and were built much larger and utilized stone construction. These classical Sweitzer barns came to dominate the early nineteenth-century landscape.

During the golden age of Pennsylvania agriculture from 1790 to 1840, the rapid expansion of commercial agriculture stimulated barn evolution resulting in a variety of styles and sizes of forebay barns which had come to characterize and symbolize the rural Pennsylvania Germanic landscape of Lancaster and surrounding counties. The name "Pennsylvania barn" has come to be used exclusively to designate the forebay bank barns which developed here.

The first major barn style change resulted in what became the most abundant class of Pennsylvania barn in southeastern Pennsylvania and Lancaster County. It occurred when the asymmetrical cantilevered forebay was eliminated. The forebay form, however, was retained by recessing the lower front stable wall four to six feet back under the upper level, thus recreating the forebay overhang which was now part of the main barn frame. This resulted in a symmetrical gable wall configuration and is named the standard Pennsylvania barn.

Various versions of this form were built throughout the nineteenth century. The earliest ones were stone construction with lower gable end walls completely closing the recessed forebay. Many of these utilized "L"-shaped pillars, or Peilers, to strengthen and support the frame forebay front wall producing an L-shaped alcove, or Peiler Eck, on either side of the front stable wall. Most standard barns built after 1850 were frame with timber frame bent construction. Many of these eliminated the extended foundation end wall support producing an "open forebay" cantilevered configuration. Later examples frequently included posts below the forebay sill for additional support.

Another evolutionary development which originated in adjacent Chester County and spread north and west was the addition of a large, extended forebay straw shed to various existing barns. The resulting deep 20 to 25 foot forebays necessarily required additional support provided by posts. In Chester County, conical stone columns of English origin were frequently used.

An alternative strategy for barn enlargement involved the inclusion of rear outsheds on either side of the barn bank. This plan, which emerged in Lancaster County in the early nineteenth century, soon diffused west and north. The outshed appendage, which included the basement stable, usually provided a granary function adjacent to the upper level mow and threshing bays.

In the nineteenth century, many barns, were amended by enclosing the entire rear bank wall creating a large "rampshed" storage area. Other barns were enlarged by the addition of a large shed projecting from the forebay producing an "L"-shaped wing with an additional gable wall. Both additions permitted storage of large amounts of straw and hay.

Although the building and rebuilding of two-level Pennsylvania barns continued into the twentieth century, most new barns built after 1900 were specialized, dairy barns designed and promoted by agricultural colleges and journals. A fascinating example is provided by the barn at Grandview Farm near Wernersville, Berks County, now owned and operated by Adam Schaeffer. In 1901, an existing 1849 stone, standard Pennsylvania barn was greatly enlarged by extending the barn lengthwise for an additional 100 feet. This two-level banked addition replicated the earlier timber frame bents creating two additional mows and threshing floors. The under forebay space of the addition was enclosed, thus enlarging the stable area providing room for 60 cows in two longitudinal rows of wooden stalls each served by a water line and drinking bowl. The stable was ventilated by wooden ducts which removed stale air to a row of gable dormers along each of the eaves and to large cupolas along the roof ridge. Large hay drop holes enclosed in two sheds were built onto the barn's bank side. One of the sheds also enclosed the silo as an integral part of the barn's design. This was, indeed, high technology for that period, and it continues to function well today with no revision.

Barn evolution in the eighteenth, nineteenth and twentieth centuries has produced a varied and interesting assemblage of types. In Lancaster County, the traditional Pennsylvania barn with its forebay and bank, has maintained its dominance of the landscape revealing the strength of Swiss and Germanic traditions.

English Barns: Barns constructed by the English, Welsh, and Scotch-Irish in the eighteenth through the early nineteenth century developed differently than the Pennsylvania Barn. Typically rectangular with gable roofs, they were constructed on flat sites rather than banked ones and had no projecting forebay. Frame and stone were common materials, although early log examples undoubtedly were present. Many of the surviving examples identified in the Lancaster County Historic Sites Survey are located within the northwestern section of the county. They are generally constructed of stone and typically have seen a great deal of alteration in response to changing farm practices. Among the examples identified is a barn located adjacent to Spring Grove Forge in East Earl Township.

Plain Sect Variations: Amish, Mennonite, and other plain sect groups within Lancaster County historically built and utilized Pennsylvania Barns. With increasing reliance on milk and cattle production throughout the nineteenth century, forebays were commonly enclosed and straw and cattle sheds attached. The appearance of many Pennsylvania barns operated by plain sect farmers today have become almost unrecognizable due to these additions. Yet this practice is a continuance of the traditional Lancaster County response to changing market conditions and technologies.

Tobacco Barns: In Lancaster County, tobacco barns became an integral component of the farm by the mid nineteenth century. Typically constructed of wood, these large open storage facilities usually have a system of vertical or horizontal ventilators within their sidewalls and often roof ventilators. Tobacco barns are generally constructed on a raised stone foundation to provide for a tobacco cellar, or dampening room, and stripping room. Within the barn, a series of poles and racks provide a framework from which tobacco is hung to cure. A relatively unique feature found in some Lancaster County barns is a gable ventilator incorporated within the cornice at the barn's sidewalls. The majority of operating farm complexes identified in the Lancaster County Historic Sites survey possess one, if not more, tobacco barns.

Domestic Outbuildings

The Springhouse: Springhouses, from which water was provided for domestic uses, were almost universal elements of the Lancaster County farm. The purpose of the springhouse was to shelter the water supply. They generally consisted of small rectangular buildings, often recessed into the ground, of stone, brick, or wood. Some examples were more than one story in height and provided a living or working space on the upper level with a springroom below. Storage was often provided for perishables, milk, and butter in the springroom and occasionally spaces were provided for laundering, cooking apple butter, making soap, or even butchering. Springhouses continue to be an integral part of Lancaster County's agricultural landscape and many farms identified in the Historic Sites Survey retain them.

Kitchen: Some form of building detached from the farmhouse, in which butchering, the processing of dairy products, and other domestic activities were carried out, appears to have been common to Lancaster County farms from the period of settlement. Often springhouses served this function, although early references to out kitchens or back kitchens can be found. By the latter part of the eighteenth century, the food preparation functions of springhouses and/or out kitchens were typically carried out in what became known as a summer kitchen or summer house. Summertime cooking and preserving of foods were done in these structures during hot weather in order to keep the heat out of the main dwelling. In addition, summer kitchens often served as a washhouse or butcherhouse. Summer kitchens were located in close proximity to the farmhouse and often attached to it by an open breezeway. During the mid nineteenth century, summer kitchen functions were often relocated to basement rooms constructed for this purpose. The Michael Schindel House in Manor Township is among many sites identified in the Lancaster County Historic Sites Survey that retain excellent examples of summer kitchens.

Bakeoven, Smokehouse, and Butcherhouse: Among the outbuildings devoted to the processing of foods for domestic consumption were the bakeoven, smokehouse, and butcherhouse. The bakeoven was used for baking breads and pies, roasting cornmeal and nuts, and drying vegetables. Bakeovens were commonly constructed as free standing exterior structures, such as the example at the Caushey-Ankrim House in Drumore Township (circa 1765), or attached to the rear of interior cooking fireplaces at the farmhouse or summer kitchen, such as is evidenced in the summer kitchen of the Shreiner Farm in Manheim Township. Smokehouses, in which meats were cured, were, and are, also common. Typically detached buildings of stone or brick, examples include the brick smokehouse at the Schindel House in Manor Township and the brick and stone smokehouse at the Peter LeFever House in Strasburg Township. It was also common to find smoking rooms or chambers in the attics of farmhouses adjacent to the chimney, as in the Martin Barr House in Strasburg Township. Butchering of meats was often accomplished in a butcherhouse, where pigs and beef could be slaughtered, hung, cleaned, cut and processed. Stoves with large kettles to provide hot water to render the lard out of the carcasses were common. In addition to butcherhouses, this activity was often accomplished in the washhouse or even the basement of the farmhouse.

Washhouse: The other prominent domestic outbuilding was the washhouse in which clothes were cleaned. The washhouse contained a fireplace or stove to heat water and shelves or benches for tubs and washing equipment. Washhouses continue to be an active component of many of Lancaster County's plain sect farms.

Cave or Ground Cellar: Before the days of refrigeration nearly every farmstead had a cave or ground cellar for the storage and preservation of food. Both detached cellars, such as the example found at the Circle Creek Farm in East Donegal Township, and those beneath or adjacent to the house were common in Lancaster County. They were typically constructed of stone, often whitewashed or parged on the interior,

and had arched ceilings. Floors were typically earth, brick, or stone. The cellar provided cool storage area for fruit, vegetables, and dairy products.

Ice House: Prior to the invention of electric refrigeration in the twentieth century, the cutting and storage of ice was an important seasonal event on the farm during the winter months. Ice was cut from streams or ponds and stored in an icehouse for use during the remainder of the year. Icehouses were typically constructed of stone or wood and often had double insulated walls or cork-lined walls. The Rohrer Farm and Mill in Paradise Township retains two icehouses and a series of ponds and races from which ice was collected.

Outdoor Privy: Until the twentieth century, all farms had outdoor privies. Construction materials and sizes varied, as did architectural embellishment. Simple examples, such as the privy located on the Benjamin Herr Farm in East Lampeter Township, and more elaborate ones, such as the Silas K. Eshelman Farm in Paradise Township that mimics the Victorian Gothic architecture of its adjoining farm buildings, remain throughout the county. The outdoor privy continues to be used today within the county's plain sect community, principally at rural schools.

Farm Outbuildings

Silo: Silos were introduced on Lancaster County farms beginning in the last third of the nineteenth century, yet did not become commonplace until about 1920. They are typically round, constructed of wood, concrete, tile, or metal, and located adjacent to the barn. The visual character of Lancaster County has evolved through the introduction of this vertically prominent element within the landscape. Much as the historic character of the skyline of Lancaster City was defined by church steeples, that of rural Lancaster County is now shaped by silos.

Milkhouse: In the earliest farms, milk was typically cooled in the waters of the springhouse, ground cellar, or basement. By the late eighteenth century, specialized milkhouses, typically built of stone and near or adjacent to the barn, became commonplace. By the late nineteenth century, milkhouses constructed of wood, concrete block, brick, or tile were introduced. Increasingly strict regulations for the handling of milk have resulted in further evolution of milkhouses. In Old Order Amish farms and other plain sects that do not otherwise utilize electricity, modern refrigeration is found in the milkhouse.

Other Outbuildings: Among the other common outbuildings historically found on Lancaster County farms are malthouses, stillhouses, and wineries, in which beverages were produced principally for domestic consumption; corn cribs, both detached and as appendages to barns; tool sheds; pig pens, sheepfolds, and chickenhouses; and, typically in larger farms, hay barns, which were used to store excess hay mows that could not otherwise be accommodated within the barn.

Other Site Features

Garden, Yard, and Orchard: Like the farm buildings themselves, the land was divided among largely domestic and farming activities. The domestic spaces adjacent to the farmland were, and are, typically used for vegetable and flower gardens. Vegetable gardens, and gardens for the production of cutting flowers, are typically located to the rear or side of the farmhouse. Often planting beds of flowers were sited to the front of the house and along walks leading to it. Fruit and shade trees are also commonly found around the house. Historically, gardens were often surrounded by picket fences or even stone walls. Orchards, when used primarily for domestic use, were often located in close proximity to the farmhouse.

Cropland: In the eighteenth century, Pennsylvania farmers developed a pattern of farming that was far different than what had been generally practiced in Europe. Unlike the southern plantation system, where much of the labor was provided by servants, or the New England practice of cultivating gardens, plentiful land, rich soils, and good farming practices, allowed each farmer to develop a series of his own "fields." Croplands, like the farm buildings themselves, were and are constantly adapted to new farming technologies and market conditions. With the technological advance widely accepted and used by the Pennsylvania farmers, such as the use of horse drawn equipment and, later, mass produced farm machinery, fields expanded dramatically in size. In more recent years, contour farming and soil conservation practices have continued this evolutionary process.

Meadow, Stream, and Woodlot: Meadows were typically used for cattle and often winter wheat was grown on them. They generally were created in the lowlands surrounding streams. Permanent pastures developed after about 1750. Streams and springs are important features, as they provide fresh water for both the farm family and its animals. In Lancaster County, much of the thick forest that covered the land when the settlers arrived disappeared by the nineteenth century. Small woodlots were retained, generally where topography made farming difficult.

Fencing: Fencing was a common feature of the Lancaster County farm that has changed considerably over time. Early settlers utilized the products of the forests they cleared to construct wooden fences, such as the worm fence, or snake fence, constructed of split rails built in a zig-zag course that did not require posts. The post and rail fence was often used as a replacement for the worm fence. Although it required more time and labor to erect, it was more substantial and took up less space. Posts of chestnut or locust were preferred, as they were long lasting. As farms became more permanently established, stone walls and fences and rail fences became commonplace. Stone walls typically separated the barnyard, served as retaining walls where sloping sites surround the domestic buildings, and surrounded family burial plots. Otherwise, stone boundary walls were either not common to Lancaster County or have simply not survived. Fences served to keep farm animals within the farm, wild animals out, divided fields and established

boundary lines. In the county's early history, rail fencing or vegetation such as hedgerows or tree lines provided boundaries for farms and fields. In the late nineteenth century, wire fencing was introduced. Iron and cast iron fencing became increasingly popular for house yards and family burial grounds in the mid to late nineteenth century. Of more recent origin is the board fence, often used for horses and cattle pastures. Fences around the farmhouse were more ornamental in character, favorites being the wrought iron fence and the pale or picket fence. Particularly in eastern Lancaster County, fencing as boundary or field demarcation has largely disappeared. Farmers generally use natural landmarks, such as streams, scattered trees or other natural features, or remnants of earlier demarcation of land use, such as ditches, fence posts, etc., to delineate their lands.

Lime Kilns: Lime, used to improve the productivity of the soil and as a building material, was an important aspect of farming for Lancaster's Pennsylvania German community. By the 1750s, lime kilns, used to extract lime from limestone, were common throughout the county. The operation of lime kilns were often cooperative ventures, with several farms sharing a single kiln. The kilns themselves varied in design and construction. The most common examples remaining today are constructed of stone, with arched or pointed openings, located on steep slopes or within woodlots. Made technologically obsolete by the introduction of commercially available lime in the mid nineteenth century, and its popular acceptance by the late nineteenth to early twentieth century, most surviving kilns have fallen into disrepair. A typical example of lime kilns identified in the survey is found on the Martin Barr Farm in Strasburg Township.

Family Burial Grounds: The practice of establishing small family burial plots was common on Lancaster County farms throughout the eighteenth and nineteenth centuries. Often surrounded by low stone walls or, in later examples, iron fencing, these plots were typically small in size and sited away from the farmstead, often overlooking it. Surviving gravestones and markers are typically plain or iconographic in style, although some monumental elements are occasionally found. Although most family graveyards retain no more than one or two dozen markers, and often less, many contain unmarked graves of infants or for which markers have disappeared due to deterioration or removal. Typical Lancaster County examples include the Baughman Family Burial Ground (circa 1774) near Georgetown in Bart Township and the Shirk Family Burial Ground(circa 1820) in Manheim Township. The Lancaster County Historic Sites survey has recorded more than twenty-five extant family burial grounds in Manheim Township alone, with numerous other examples identified that have been lost.

For European-Americans, the family burial ground was a unique phenomenon for which their was little precedent in their homelands. While the reasons they developed in this country are not yet well documented, they survive as an important aspect of the eighteenth and nineteenth-century agricultural landscape. The frequency with which these burial grounds occurred historically is difficult to estimate, since many were too small to be shown on county atlases, families often did not specifically reserve their plots on their deeds, and many have disappeared as a result of vandalism or deterioration.

Water and Wind Power: Relatively common features of many, particularly plain sect, farms in Lancaster County are systems to harness water and wind to produce power for farming operations. Many creeks retain small dams or races which power pulley systems that transmit mechanical power to a variety of activities. Likewise, windmills remain in common use.

Variations Within the Property Type, "The Farm"

Two important variations of the property type, "the farm," are found in Lancaster County. The first is the "plain sect farm," notably those of the Old Order Amish and conservative Mennonites. The second includes farming related buildings and complexes that have lost their farming use or context.

Plain Sect Farms: As much as farming has given Lancaster County a national identity, so too have the plain religious sects that settled here in the eighteenth century and remain here today. Not only do these groups preserve many of the oldest working farms in the county, they often do so using a unique mix of modern and pre-industrial technologies. The character of the county as a whole is strengthened and diversified by the continued experience gained from being able to witness horse drawn agricultural machinery and buggies. The character of the community is even affected at nighttime, when vast stretches of farmland are pitch dark because of the absence of electrical lighting. These visual aspects combine with significant cultural traditions to form one of the county's most unique dimensions.

These cultural patterns are reflected in the farms of the plain people. Simple in design and typically lacking ornament, the sites are nonetheless often complex groupings of farm buildings with numerous generations of additions. The telescoping visual effect of a farmhouse with successive Dawdy Haus additions and the sprawling evolution of the barns are examples of this.[7] The continued presence of windmills, water engines, and other elements are defining elements of this variation.

Of this variation, there are two major subsets: those farms representing "pure" plain sect farms, where the present character of the farm is wholly a product of its development by plain people, and "altered" plain sect farms, where farms of other cultural groups have been acquired by plain sect farmers and yet still retain aspects of their previous character. An example of the former is the Stoltzfus Farm in Leacock Township and of the latter is the Benjamin Brackbill Farm in Paradise Township.

Farming Resources Having Lost Their Agricultural Context: Since the early twentieth century, an increasing amount of Lancaster County farmland has given way to suburban development. While much of this merely expanded the boundaries of existing urban centers, suburban development has also been scattered throughout the rural areas of the county. Lancaster County has lost more than 92,500 acres of farmland to development since 1959 and continues to lose approximately 3,000 acres per year. Because of the rapid growth and development experienced in Lancaster County in recent years, many historic farm buildings and farmsteads have lost the context of their farmland. Yet, both individually, and by their pattern on the land, they are valuable both for what they contribute to a broader understanding of the overwhelming historical significance of farming in Lancaster County and as reminders of the prior agricultural function of

areas now in other land uses. The farm, within the context of its working historic landscape, is the most significant form of the property type; the farm, as represented by its vestiges throughout the landscape no longer in cultivation, has important secondary significance to the context of "Agriculture in Lancaster County 1700-1945."

While farming related resources that have lost their farming context can have significance under the property type "The Farm," the interdependence of the buildings, the land, and agricultural use represents the primary test for assessing significance. Where individual resources have lost this context, the sites should either be relatively rare or intact examples of a period, style, or type.

Continuity of the Agricultural Landscape

The landscape of Lancaster County is still dominated by farming. The farm in Lancaster County is the unit from which a broad fabric or, appropriately for the region, its quilt, is made. In Lancaster County, farms generally exist within the context of active agricultural districts where farming activity is broken only by occasional alternative land uses along transportation routes or modern suburban residential development.

The pattern of large expanses of open cultivated fields interspersed with complexes that include substantial farmhouses, large barns, and numerous outbuildings has remained relatively unchanged since the 1700s. A number of written descriptions of Lancaster County survive from the eighteenth and nineteenth centuries. Several of them were edited by William Frederic Worner, Librarian of the Lancaster County Historical Society, in his 1927 book *Old Lancaster: Tales and Traditions*. While most of the descriptive accounts Worner uses in the book relate primarily to Lancaster City, the following give indication that travellers to the area have long recognized the richness of the county's agricultural landscape.

One of the earliest descriptions of Lancaster County in *Old Lancaster* is found in a series of excerpts from *Travels Through the Interior Parts of America in a Series of Letters By an Officer*, written by Thomas Anburey in 1789. Anburey was a British lieutenant who had served in America during the Revolution and later wrote a two volume description of the country as he experienced it. Anburey's comments on Pennsylvania farming are not limited to Lancaster County, but undoubtedly reflect what he saw during his visit here in 1778:

> After you get over the Delaware, a new country presents itself, extremely well cultivated and inhabited; the roads are lined with farm houses, some of which are near the road, and some at a little distance, and the space between the road and houses is taken up with fields and meadows; some of them are built of stone, two stories high, and covered with cedar shingles, but most of them are wooden, with crevices stopped with clay; the ovens are commonly built a little distance from the house, under a roof to secure them from the weather.[8]

Anburey continues: "The farmers of Pennsylvania, and in the Jerseys, pay more attention to the construction of their barns than their dwelling houses."[9]

In 1783, Johann David Schoepf, a German physician, visited Lancaster. He later published a book on his travels in America in which he recorded his observations on Lancaster City and County. *Travels Through the Confederation* was published in Germany in 1788 and its 1911 English translation is quoted in *Old Lancaster*.

> The road to Lancaster lies through a limestone valley, a fertile, varied, and well-farmed region. Along the road, indeed, ones sees, for the most part, sorry cabins, for the better houses of the well-to-do landowners are set a little off the road. This and the custom of always leaving some timber next to the road, brings it about that travellers think they are going through nothing but wilderness when all around them are plantations and dwellings stuck away in the bush. On this road everybody I met I addressed in German, and they all answered me in the same language. Very many Anabaptists live in these parts; good, kind people, and sturdy subjects who here, as well as in Germany, win the love of their neighbors and the regard of the magistracy.[10]

Unlike most of the verbal sketches of Lancaster surviving from the eighteenth century, which typically focus on the eastern portion of the county, Duke De La Rochefoucault Liancourt provides a description of the area northwest of the then Borough of Lancaster. In *Travels Through the United States of North America, The Country of the Iroquois, and Upper Canada*, published in 1799 and based on his visit here in 1795, is contained the following:

> The road from Lancaster to this place [Maytown] lies chiefly through a woody tract of country, which assumes a wilder appearance than we have hitherto seen. Cultivated land appears more rarely as we proceed, except a few valleys, which still lie in grass, or are sown with Indian corn. In proportion as the distance from Lancaster increases, houses of brick or stone are less frequently seen. We met with scarcely anything but log houses; every where we observe German farms, small houses, and large barns. Cows and oxen, which seemed tolerably good, we found grazing in the woods and near the road; and also saw, at times, sheep, but never more than eight or ten of them together.[11]

Jedidiah Morse, father of Samuel F. B. Morse who invented the electro-magnetic telegraph, was himself a noted geographer who was often referred to as the "Father of American Geography." Morse's 1797 book, *The American Gazetteer*, includes a brief passage about Lancaster County: "Lancaster is a populous and wealthy county in the interior part of Pennsylvania....The lands in this county are rich and well cultivated. The hills in the northern part abound with iron ore..."[12] Englishman Fortescue Cuming visited Lancaster in

1807 and his description of it was published in *Sketches of a Tour to the Western Country...,"* published in Pittsburgh in 1810: "The road continued fine, and the country rich, laid out in large farms, with good dwelling houses of brick and stone, and immense barns."[13]

Worner includes a description of Lancaster County by Mrs. Anne Royall, who he terms "America's pioneer woman journalist." Mrs. Royall produced a ten volume work entitled *Travel in the United States* in 1829 in which she related her impressions of the county from a visit here in 1828:

> The beauty of Lancaster appears to just burst upon the traveler as he proceeds to Lancaster from Reading, and becomes more beautiful every mile of the distance. Two things suggested themselves to me as I drove this fertile state, viz. that neither the inhabitants themselves, nor the inhabitants of other states, have any idea of the superiority of Pennsylvania over other states, it being almost out of the common routine of fashionable tours; and no writer has, or perhaps can, do justice to Pennsylvania.
>
> The country is visible to a great extent, the road sometimes rising upon gentle swells; the land then suddenly changes to a rich soil, the whole chequered with fields, meadows, orchards, and adorned with alternate patches of lofty timber...."
>
> As we draw near Lancaster, it still grows more beautiful. Level as far as the eye can see, and as rich as any bottom land on the western waters, and in such a beautiful order, – the ploughing, the fences (post and railing,) exact and regular to a mathematical nicety, – not a particle to mar the beauty of the prospect.[14]

Worner's selection of descriptions of Lancaster County by its many visitors ends with the visit of Mrs. Royall. In 1848, noted artist Arthur Armstrong painted a view of the 1805 Jacob Miller House and Farm in Lancaster Township. The painting shows a farm scene, complete with the farmhouse, bank barn, mill, and other outbuildings (see Continuation Sheet F-2, Page 23 (p. 62)). Similar scenes are still prevalent throughout the county today. Another written account, dating from 1853, can be found in Eli Bowen's *The Pictorial Sketch-Book of Pennsylvania*:

> As we leave Chester County, and pass through the range of hills called Mine Ridge, the great county of Lancaster, in all its glory, expands before the eye. An intelligent Englishman called this county the 'garden of America,' and a view of it from this position will fully justify the propriety of this compliment. It is, without a doubt, the garden of this glorious Union, and there are few spots in this wide, wide world, which could present a nobler scene to the eye than is here afforded....
>
> The whole of the country is, therefore, in the highest state of cultivation; and in the economy which characterizes the general agricultural system, there is probably not a more prolific region in the United States.

Bowen continues his description of the farms themselves.

> In passing through this splendid agricultural region, the stranger will particularly observe the neatness and order which characterize the general aspect of the scene of farming operations...the substantial and comfortable buildings, especially the imposing appearance of the barn. Nearly every large farm has a cluster of buildings, the most prominent of which is the barn, situated next to the mansion house, around which are scattered wagon and carriage-sheds, corn-cribs, wash-house, summer dining-house, etc., with adjacent tenant house.[15]

An engraving of the "General Appearance of a Lancaster County Farm" accompanies the above description and depicts a pastoral farm scene still common in the County today (see Continuation Sheet F-2, Page 24 (p. 63)). Present in the drawing are a substantial farmhouse and barn, an ancillary building, and a mill. A series of similar, yet more detailed, engravings are included in Everts and Stewart's 1875 *Atlas of Lancaster County* (see Continuation Sheet F-2, Page 23-24 (p. 62-63)). Again, the continuity of the pattern of farming activities on the landscape that is evident in these sketches remains throughout much of the present day county.

It is interesting to note that the prominence of Lancaster City as the centralized hub of the agricultural county is acknowledged by these early visitors. Dr. Schoepf described the City as he saw it in 1783: "Lancaster, of all inland towns of America, is the most considerable, numbering already 900 houses, and it is hardly 80 years since the place was first established." The Reverend Manesseh Culter said of the City after a visit in 1788: "Lancaster is a large and ancient town; the best built inland town in America." Jedidiah Morse, writing in 1795, called the City: "a handsome and flourishing post-town, the capital of Lancaster county, Pennsylvania, and the largest inland town of the United States....Its trade is always great, and must increase in proportion as the surrounding county populates." Anne Royall captured the essence of the town's relationship to the countryside: "Lancaster city is surrounded by a large unbroken body of the richest land in Pennsylvania, or in any other of the Atlantic states.[16]

Notes for Section F-2:

[1] Berks County is adjacent to Lancaster County to the northeast and its farming resources share many similarities in terms of style and development.

[2] Arthur C. Lord, "Architectural Characteristics of Houses: Lancaster County, 1798," *Journal of the Lancaster County Historical Society,* Vol. 85, No. 4 (1981), pp. 132-151.

[3] According to research provided by Lancaster County historian and author Henry J. Kauffman, the Flurküchen plan would actually represent somewhat of a variation of the Herr House plan. Where the Küche is partitioned at its rear to provide a workroom in the Herr House, a traditional German Flurküchen plan would have a small room partitioned to the front of the Küche as an entry hall, or Flur. Often the original German precedents also have an attached stall or stable at the opposite end from the Stube and Kammer. Only one house has been documented in Lancaster County with such a plan, the Reiber-Herr-Hershey House near Creswell. This particular house is rather late for a "pure" Germanic house in this county as it dates from circa 1772 and additional research is required to determine if the existing plan is indeed original.

[4] Berks County Conservancy, "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places, n.p., 1992.

[5] "Farms in Berks County, PA"; Joseph W. Glass, *The Pennsylvania Culture Region: A View from the Barn* (Ann Arbor, MI: UMI Research Press, 1971, 1986), pp. 111-169.

[6] Henry J. Kauffman, *Architecture of the Pennsylvania Durch Country, 1700-1900* (Lancaster, PA: By the author, 1992), p. 59-94.

[7] A "Dawdy Haus," or grandfather house, is typically defined as either an attached addition or separate structure build to house the older generation of a family when the younger generation assumes principal responsibility for the operation of the farm. In common practice, Dawdy Haus additions may also house other generations of the family as well. In many cases, successive Dawdy Haus additions are constructed and result in a houses with stepped or telescoping appearance.

[8] William Frederick Worner *Old Lancaster: Tales and Traditions* (Lancaster, PA: William Frederick Worner, 1927), p. 37.

[9] Ibid.

[10] Ibid, p. 57.

[11] Ibid, p. 107-108.

[12] Ibid, p. 114.

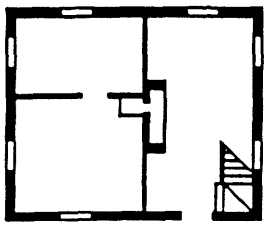
[13] Ibid, p. 150-151.

[14] Ibid, p. 163.

[15] Eli Bowen, *The Pictorial Sketch-Book of Pennsylvania* (Philadelphia: William Bromwell, 1853), pp. 31-32.

[16] Worner, p. 58, 78, 114, 164.

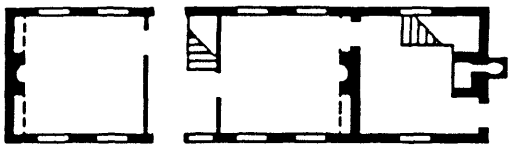
FIGURE 2.1 SAMPLE FLOORPLANS OF REPRESENTATIVE LANCASTER COUNTY FARMHOUSES AND BARNS



Pennsylvania German

Example of the three room plan, illustrating the Kuche (right), Stube (lower-left), and Kammer (upper-left), central "walk-in" fireplace, and simple board wall enclosed stair

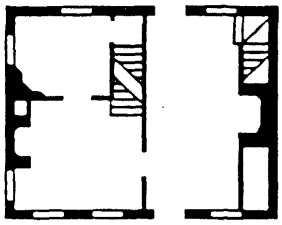
Adapted from *Lancaster County Architecture 1700-1850*, The Historic Preservation Trust, 1992



Traditional English

Example of the linear plan of a traditional English style house, showing one room depth, end chimneys

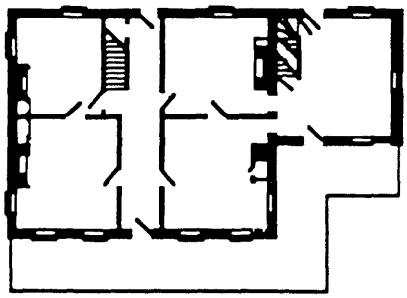
Adapted from *Lancaster County Architecture 1700-1850*, The Historic Preservation Trust, 1992



Quaker or Three Quarter Georgian

Example of the Quaker or Three Quarter Georgian plan with end chimneys and three room plan

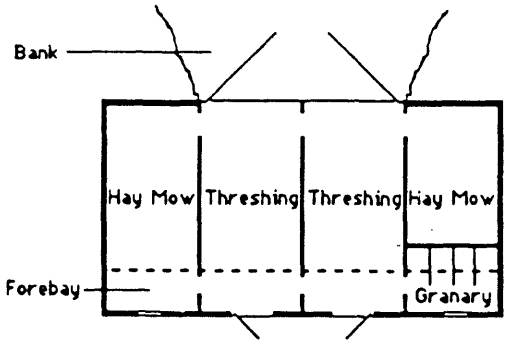
Adapted from *Lancaster County Architecture 1700-1850*, The Historic Preservation Trust, 1992



Pennsylvania Style

Typical variant of the Pennsylvania style with four room plan at principal block and rear wing

Michael Schindel Farmhouse, Manor Township



Pennsylvania Barn, Threshing Floor

Example of the threshing floor plan of a typical Pennsylvania Barn. Note the granary and hay mows separated by threshing bays. The floorplan of the lower, or stable, level would vary based on the barn's function.

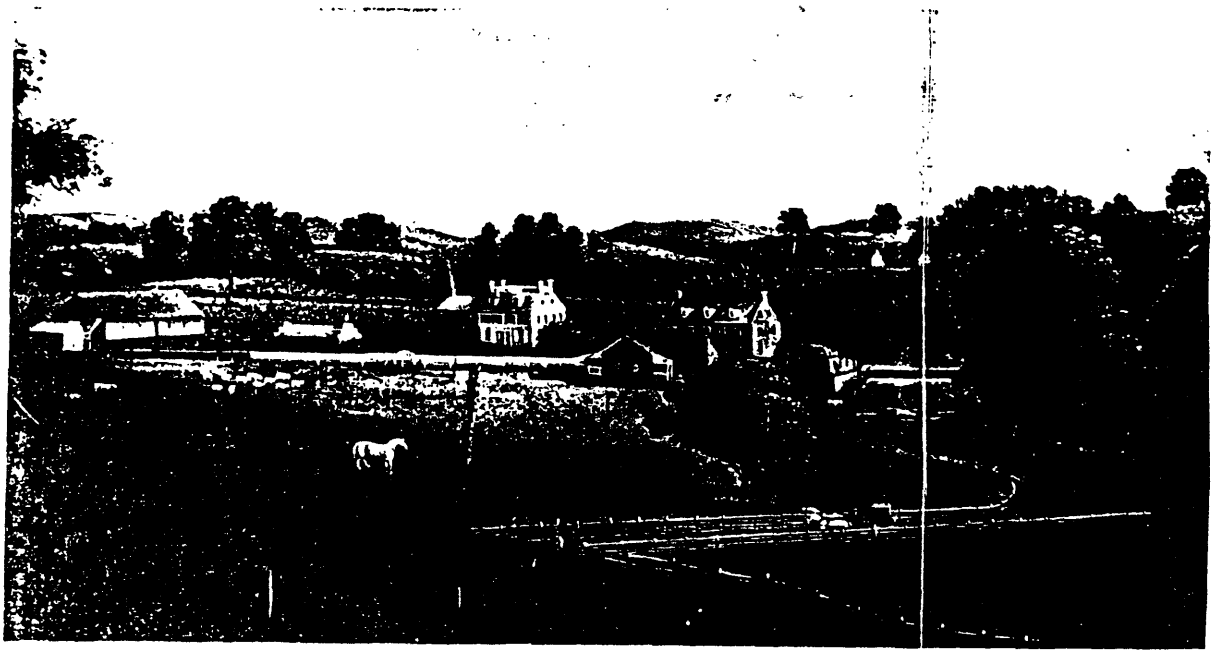
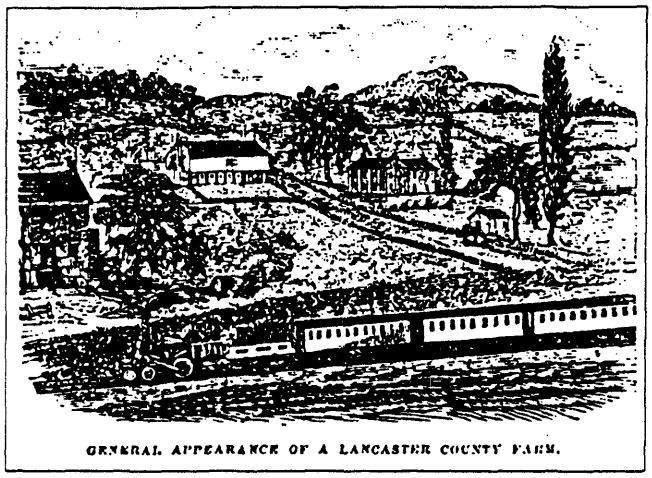


Figure 2.2 THE 1805 JACOB MILLER HOUSE, LANCASTER TOWNSHIP
Source: 1848 painting by Arthur Armstrong, courtesy Mr. Gerald Lestz

Figure 2.3 VIEWS OF LANCASTER COUNTY'S AGRICULTURAL LANDSCAPE, 1853-1875

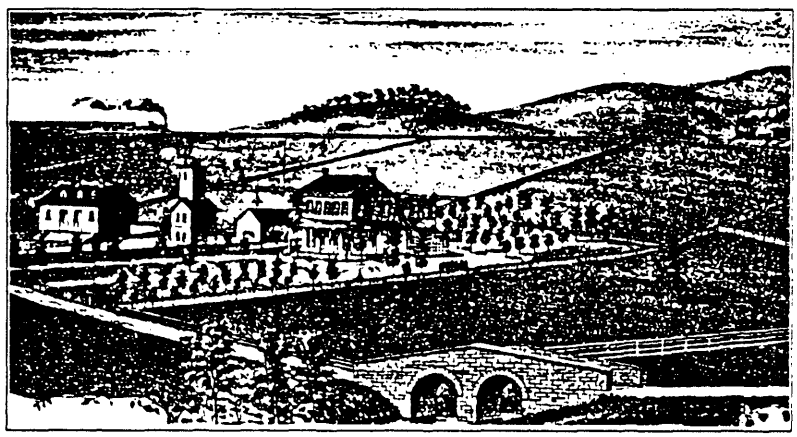
1853



"GENERAL APPEARANCE OF A LANCASTER COUNTY FARM"

Source: Eli Bowen, The Pictorial Sketchbook of Pennsylvania, 1853..

1875

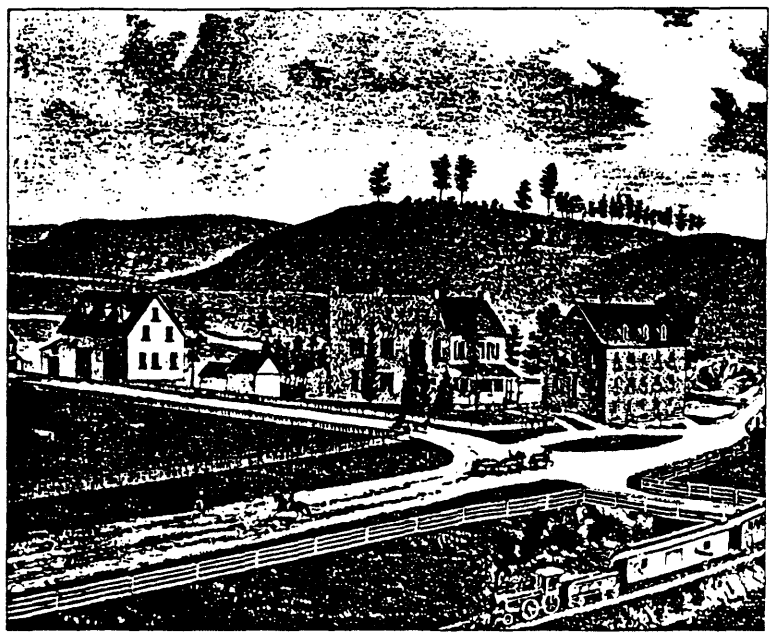


"FARM AND SUMMER RESIDENCE OF W. L. PEIPER ESQ."

Source: Everts & Stewart, Atlas of Lancaster County, 1875, p. 29.

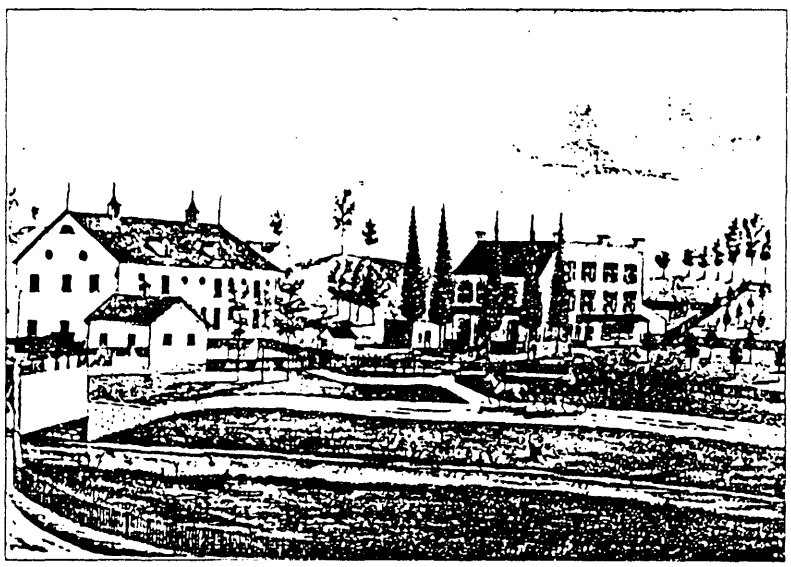
Figure 2.4 VIEWS OF LANCASTER COUNTY'S AGRICULTURAL LANDSCAPE, 1853-1875

1875



"RESIDENCE, MILL AND FARM PROPERTY OF JNO. SNYDER"

Source: Everts & Stewart, Atlas of Lancaster County, 1875, p. 19.



"THE LATE RESIDENCE OF HENRY K. STONER, DECEASED"

Source: Everts & Stewart, Atlas of Lancaster County, 1875, p. 9.

The farming related resources of Lancaster County, Pennsylvania, as defined by the property type "The Farm," are significant in the area of agriculture under Criterion A because they illustrate the nationally significant agricultural history of Lancaster County, traditionally referred to as "the Garden Spot of America." They are also significant under Criterion C for their representation of the broad pattern of evolving architectural styles and technologies found on Lancaster County farms from the early eighteenth century through the twentieth century. Farming, farmland, and farm buildings have been, and continue to be, the principal character-defining elements of Lancaster County.

Historical Significance

Between 1710 and 1945, agriculture in Lancaster County dominated the local culture and economy as it developed from a primarily subsistence activity to a commercial one. By the late eighteenth century, the county was the top agricultural producer in Pennsylvania, then known as "the bread basket of the colonies" for its superior wheat production. As its prominence in wheat growing yielded to farms further west, Lancaster County farmers turned to tobacco and cattle and the county retained its leadership in total agricultural production, topping all agricultural censuses from 1850-1900. It was not until the early twentieth century that the county's dominance was challenged and eventually overtaken by irrigated counties in California. Yet, Lancaster County remains a place whose character is largely defined by farming and that continues to leads the nation in many statistical categories of farm output.

Thomas W. Kemp summarized the role of agriculture in the county's history in H. M. J. Klein's 1924 *Lancaster County Pennsylvania: A History:*

> So closely is agriculture woven into the history of Lancaster county that every phase of development has for its basis the unfolding and strengthening of agricultural evolution. The history of every township, every borough and of Lancaster city is part and parcel of the agricultural history of the county as a whole. The county was founded upon agriculture and to-day it is the determining factor in every progressive step of its history. From the standpoint of agricultural wealth Lancaster county to-day produces more than any single area of equal size in the United States. It is the sustaining force that gives to the industries of the county their peculiar advantage over the industries of other localities.[1]

The cultural influences that shaped Lancaster County and contributed to its leadership in agriculture add to the overall significance of its agricultural history. The Pennsylvania Germans, English, French, Welsh, Scotch-Irish, and others contributed to the diversity of the county's character. The county's plain sect population is an essential element of its cultural composition and the historical and continued presence of substantial Old Order Amish, Mennonite, and other plain sects is recognized nationally as the very symbol of the community.

Mennonite and Amish were among the County's earliest settlers and have historically made a significant contribution to its agricultural history. Within each plain sect, subgroups vary in terms of orthodoxy. The Mennonites developed culturally into two rather distinct groupings; the Progressive Mennonites no longer wear plain dress and "have largely assimilated into the mainstream culture" and the Old Order Mennonites who continue to wear plain dress. Members of different groups of Old Order Mennonites use different modes of transportation: the more conservative continue to utilize horses and buggies and the less conservative drive automobiles (typically black automobiles with all chrome and accents painted out; members of which are referred to as "black bumper Mennonites"). Each of these groups have a degree of diversity in terms of their religious, cultural, and social beliefs, but all are generally linked by their prioritization of community and family over individual interests. Material wealth is not considered to be desirable and ornamentation is often considered an outward sign of material wealth.

This rich agricultural history and its associated cultural associations are represented by the property type "The Farm." The farm consists of cultivated land, buildings related to the processing and storage of crops, and buildings and land uses associated with the farm family. Specific periods in Lancaster County's agricultural history can be reflected by certain farms and farm features. Typically, due to their evolutionary nature, the farm illustrates the changing market conditions and technological advances that have occurred over several generations.

Architectural Significance

Under Criterion C, the architectural development of the context "Agriculture in Lancaster County 1710-1945" is illustrated by the buildings and structures exhibiting the characteristics of a style, period, construction method, or vernacular tradition common to Lancaster County farms. In assessing the significance of individual resources, they can be comparatively reviewed according to type, function, period, construction technology, materials, form, and regional variation. They can also be evaluated in terms of the presence or absence of structural or stylistic evolution. Three major studies have analyzed the architectural development of Lancaster County and regional farming resources and were consulted for this nomination: Dr. Robert F. Ensminger, *The Pennsylvania Barn,* published by Johns Hopkins Press in 1992; Dr. Joseph W. Glass, *The Pennsylvania Culture Region: A View from the Barn*, published by UMI Research Press in 1986; and Amos Long, *The Pennsylvania German Family Farm,* published by The Pennsylvania German Society in 1972.

Regional differences were identified in the Lancaster County Historic Resource Survey and were largely based on traditional cultural and development patterns that occurred. The areas settled by the county's German, Welsh, and others can still be identified by studying the built environment. Stylistic differences between the farmhouses and barns of Germanic and English settlers are recognizable. Likewise, evidence of changing cultural patterns can be seen, such as in the case of the abandoned Quaker meeting houses

mentioned by Fletcher or, more extensively, through the adaptation of farms by Amish farmers. In addition, natural features of the land influenced building construction. Log houses are still common, although rarely visible beneath layers of more recent construction, and reflect the abundance of timber found by early settlers. Limestone farmhouses, barns, and outbuildings are found within the limestone plain. Sandstone and brownstone construction is common along the northern tier of the county. Bank houses are common in many areas of the county and respond to site conditions to meet functional requirements.

Stylistically, farm buildings in Lancaster County tend to be relatively conservative, although high style examples remain of all major architectural styles except the Greek Revival. All farm buildings, both high style and vernacular, reflect high quality craftsmanship and construction detail. Many buildings show evidence of one or more stylistic or cultural influences. For example, many Georgian and Federal style farmhouses retain Germanic features. This cross acceptance of influences was in part responsible for the development of the vernacular Pennsylvania style farmhouse that began to appear in the early nineteenth century and to which details of later stylistic periods were applied. Likewise, the Pennsylvania barn, so much a symbol of the Pennsylvania Dutch region, represents an adaption of earlier forms and the acceptance of new technologies.

The cultural traditions of the county's plain sect farmers are evidenced in the built environment. The importance of family is evidenced by the construction of additions, including the "Dawdy Haus"; the practicality of low maintenance and the restraint of ornament gives rise to the use of synthetic siding materials and replacement windows; in Amish houses, where religious meetings are held, interior floorplans are open and often front porches are enclosed to provide additional gathering space; and other structures are often added to farmsteads to accommodate differing technologies and operations from non-plain sect farms, for example windmills remain common since connection to outside sources of power are not permitted.

It is precisely this melding of cultural, stylistic, and technological influences and their adaptation to changes that has defined the distinctive character of Lancaster County. In many respects the county's built environment reflects the embodiment of the American ideal: a place where different cultures met, adapted to one another, and forged a community, based on the toil of the common man rather than a reflection of its social elite. For these reasons, the commonplace, the vernacular aspects of Lancaster County's architecture are particularly significant.

This continued adaptation to changing technologies and market conditions is also a major character defining aspect of Lancaster County farms. In assessing integrity, it is essential that consideration be given to the significance of the continuing viability of the farm and its ability to adapt to future changes. The farmstead must be evaluated as a vital and changing complex and the significance of individual components must be assessed for their contribution to the whole. Where individual farm buildings have lost the context of their associated farmland or farm complexes, or are no longer in a farming related use, this aspect of viability is not a consideration for judging integrity.

Period of Significance

The period of significance, 1710 to 1945, encompasses all major phases in the agricultural history of Lancaster County from the period of its first permanent European settlement to the end of World War Two. The end of World War Two marks a significant turning point due to the increased subdivision and development of farmland for housing and industrial use. 1945 therefore reflects the ending point of the historic period of the county's agricultural development as defined in this nomination.

Notes for Section F-3:

[1]H. M. J. Klein, *Lancaster County Pennsylvania: A History* (New York: Lewis Historical Publishing Co., 1924), p. 658.

The nominated resources must be located within the present geographic boundaries of Lancaster County, and have been associated with the processing and technology of cultivating soil, producing crops, and raising livestock and plants during the period 1710 to 1945. Resources should include domestic and/or farm characteristics described in the section F-2 of this nomination.

In assessing the significance of individual resources within the property type "the farm," as identified in this nomination, Criterion A and C are interdependent. Farming use is a major character-defining element of this property type. Resources having lost the context of their farming activity or surroundings, can be considered significant within the property type only if they possess architectural significance under Criterion C and retain excellent integrity of design, are particularly noteworthy or rare examples of a particular building type or style, or provide good illustration of one or more aspects of Lancaster County farming.

Variations within the property type "the farm," including "Plain Sect Farms and Farming Resources Having Lost Their Agricultural Context," have special requirements for review. Plain sect farms typically exhibit features not commonly consistent with evaluations of design integrity for other styles of American architecture. These generally include the successive construction of additions, including the Dawdy Haus, the extensive use of synthetic siding, the infill of porches, and other variations. To be eligible under this nominations under Criterion C, such resources should exhibit these culture-based architectural characteristics. "Pure plain sect farms," as defined by this nomination should also have significance under Criterion A, typically representing sustained Plain sect ownership over several generations. "Altered Plain sect farms," also as defined by this nomination may be evaluated under Criterion C only if they retain integrity to the original design of the resource as adapted by the introduction of traditional Plain sect architectural features.

In assessing the significance of "farming related resources having lost their agricultural context", integrity of design will be an important factor, as will the relative significance of the resource in relation to others of its style, period, construction method, or vernacular tradition.

The remainder of this section has been adapted from the "Farms in Berks County, PA" multiple property nomination to the National Register of Historic Places by permission of the Berks County Conservancy.

Criterion A

Area of Significance: Agriculture

To be eligible for registration under Criterion A, a property must have originally, or throughout much of its history, been associated with the processing and technology of cultivating soil, producing crops, and raising livestock and/or plants. It must include both the land and buildings where these agricultural processes

ing livestock and/or plants. It must include both the land and buildings where these agricultural processes have taken place. The land must retain characteristics that provide evidence of its use in the production of crops or livestock, although past and current agricultural uses and methods may have changed. The agricultural buildings must include characteristics associated with the production and storage of crops, livestock, and farm buildings. The domestic buildings must display characteristics associated with farm life and the common household chores during the period of significance of the property.

Area of Significance: Ethnic Heritage

To be eligible for registration under Criterion A, a property must have originally, or throughout part of its history, been operated as a farm by a member of one of Lancaster County's plain religious sects. The most recognized of these sects are the Old Order Amish and Old Order Mennonites, yet there are a variety of others, including the River Brethren, whose membership continues to wear plain dress or have a heritage of plain dress.[1]

Criterion C

Areas of Significance: Architecture

To be eligible for nomination Under Criterion C, the property must include a building or buildings that represent the distinctive characteristics of a type, period, or method of construction relating to the historic context "Agriculture in Lancaster County 1710-1945." In particular, farmhouses may represent the characteristics of an architectural style or type of vernacular architecture popular in Lancaster County or in Pennsylvania during a given period. A barn may exhibit characteristics of the construction methods and building type that illustrate its place in the evolution of the Pennsylvania barn, as described in this nomination. An outbuilding may exhibit characteristics in which its form was fitted to the function for which it was built and or to which it was converted during the period of significance. Under Criterion C, a Farm may include a complex of farming related buildings, some or all of which are contributing resources, or an individual building, where it is the only surviving element of a previously existing historic farm complex.

Integrity

Location: The significant buildings and landscape features of the property must retain this historic location.

Design: The layout of buildings and of the surrounding lands should exhibit an organizational pattern that is characteristic of the agricultural use of the property. The orientation of farmstead groupings, for instance, is an expression of design that can be analyzed and compared to other farm properties in the re-

gion. The human decisions in land use and construction of enclosures, connecting roads or lanes, size and shape of fields, location and composition of woodlots or orchards are all indicative of a design that fits the particular property and its owner's wishes, and that exhibits common, yet distinctive, features when compared with other properties. It should be specifically recognized that Lancaster County farms are evolutionary, and that the design of individual elements often changes to reflect changing technological and market conditions. In addition, where resources have lost their integrity of setting, they should retain a high degree of integrity of design.

Setting: The physical environment within and surrounding a property provides its own unique setting. Within Lancaster County there are many types of settings, depending upon the topography, soils, waterways, transportation routes, adjacent land uses, proximity to urban or developed areas, etc. The setting is one of the most important aspects of integrity in evaluating a farm for its National Register eligibility. To be eligible for the National Register, a farm should retain its farmland or open space setting. In instances where a resource's setting has been lost or compromised by urban development, nomination will require that the resource possess high levels of integrity of location, design, materials, workmanship, feeling, and association.

Materials: A property must exhibit integrity of materials in the construction of the buildings and structures. Cases of alteration or additions should be evaluated as to the impact on the ability to identify the original materials used. When evaluating plain sect farms, the cultural rationale for alteration and use of synthetic materials should be considered when assessing integrity of materials.

Workmanship: Integrity of workmanship should be evident on a farm property. It should illustrate the soundness and durability of construction methods and materials, and the aesthetic or folk qualities that typify the heritage of the region or the craftsmanship of the individual builder.

Feeling: Integrity of feeling gives a property its sense of time and place. Each farm should evoke its own feeling - its connection with the past, and its place in the overall history of the area.

Association: A property should have integrity of association, the relationship between the place and its chain of owners and its community. Some properties may reflect their ethnic heritage of the settlement period, their regional character or their association with an industry or an institution. Among the special qualities adding to a property's integrity of association in Lancaster County are continued agricultural use throughout the period of significance, ownership of farms either historically or recently by plain sect farmers, and the ownership of farms by many generations of the same family.

Notes for Section F-4:

[1]Donald Kraybill, *The Riddle of Amish Culture* (Baltimore, MD: The Johns Hopkins University Press, 1989), pp. 12-13.

G. Summary of Identification and Evaluation Methods

Discuss the methods used in developing the multiple property listing

PLEASE SEE CONTINUATION SHEET: G - 1 (Page 75)

[x] See continuation sheet G, p. 1 (75)

H. Major Bibliographic References

PLEASE SEE CONTINUATION SHEET: H - 1 (Page 84)

[x] See continuation sheet H, p. 1 (84)

Primary location of additional data:

- [x] State historic preservation office
- [ ] Other State agency
- [ ] Federal agency
- [ ] Local government
- [ ] University
- [x] Other

Specify repository: Historic Preservation Trust of Lancaster County

I. Form Prepared By

name/title David B. Schneider, Executive Director; Heidi Pawlowski, Rural Preservation Specialist
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This nomination was developed as part of an integrated survey and nomination project designed to expand and supplement the existing base of data documenting the historic resources of Lancaster County, Pennsylvania. The project is a key component of the Lancaster County Rural Preservation Project of the Historic Preservation Trust of Lancaster County and has resulted in four basic products: 1) a comprehensive reconnaissance level inventory of rural historic resources in Lancaster County; 2) an intensive survey of twenty-five historic farming related resources; 3) a National Register of Historic Places Multiple Property Documentation Form for "The Historic Farming Resources of Lancaster County"; and 4) individual National Register nominations for six representative farms based upon the Multiple Property Documentation Form. The project was funded through the Community Development Block Grant program of the Lancaster County Housing and Redevelopment Authorities; the Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation (BHP), Survey and Planning Grant program; corporate support from Armstrong World Industries, The Building Industry Association of Lancaster, and the Lancaster County Developers' Association; as well as donated matching services by the Lancaster County Planning Commission and the Historic Preservation Trust of Lancaster County.

Survey Data Compiled Prior to 1992

Maintained by the Historic Preservation Trust as a community planning tool, the Lancaster County Comprehensive Historic Sites Survey is a base of photographic and written data documenting historically significant buildings, structures, and sites in Lancaster County. Between 1978 and 1985, the Trust completed its first major survey of historic sites, which was later published as *Our Present Past*. That survey was intended to select "representative buildings and/or sites...for detailed, in depth study." From the sampling developed for that publication, predictions could be made regarding sites in the county as a whole. While the 1978-1985 survey was comprehensive in that it identified resources throughout the county, it did not result in field inspection of all areas of the county. Rather than driving every road in the county and evaluating each property, the survey was compiled from an earlier publication called *Lancaster's Heritage*, contacts with other historical organizations, and primary research. The result was that only a portion of the county's significant historic resources were identified.

Recognizing the need for the completion of a detailed inventory, the Historic Preservation Trust developed revised methodology and conducted a trial project, a re-survey of Manheim Township, in 1990 and early 1991. The survey more than doubled the number of sites identified as potentially eligible for individual listing on the National Register. In addition, although not otherwise eligible for the National Register, more than four hundred properties were identified as having significance to the local community. More than six hundred seventy-five resources were added to the sixty-eight sites previously surveyed in the township.

Tobacco Buildings in Lancaster City, 1990

In 1990, the Historic Preservation Trust of Lancaster County completed a multiple property nomination to the National Register for "Tobacco Buildings in Lancaster City." Gloria O. Becker, Ph.D., Director of Preservation for the Trust was the principal researcher and author for the project, which was partially funded by the Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation (BHP), Survey and Planning Grant program. While concentrated on the City of Lancaster itself, the nomination and background research for the project included considerable information on the historical development and significance of the County's tobacco history. The majority of the information regarding this aspect of Lancaster County's agricultural history has been taken directly from the "Tobacco Buildings in Lancaster City" nomination.

Reconnaissance Level Inventory, 1992

The Reconnaissance Level Inventory of the rural areas of the county was conducted as an initial phase of this project in order to provide a more comprehensive base of data regarding the nature and location of both farming and non-farming-related resources in the rural areas of the county. The reconnaissance level survey methodology developed by the Trust in 1990 for the Manheim Township survey was utilized. All buildings and structures existing in the survey areas that were built prior to 1945 and that had not been substantially altered were documented.[1] For each site, a "Reconnaissance Field Survey Form" was completed, the resource was mapped on U.S.G.S. topographic maps, and a photograph(s) were taken.

Phase I was intended to include all rural areas of the county and to incorporate forty of Lancaster County's forty-one townships (the forty-first being the already completed Manheim Township). Due to the extensive number of resources encountered (more than seven thousand) only twenty-eight townships were completed during fieldwork, which occurred between 1 May and 31 December 1992. While incomplete, the additional survey data, coupled with the pre-1992 survey, provided a representative sampling from which to draw conclusions for this nomination. All sites have been entered into the Lancaster County Planning Commission's computerized Geographic Information System in order to utilize the survey data as a community planning tool.

The reconnaissance survey results for West Hempfield Township were submitted to the Pennsylvania Historical and Museum Commission as a representative example of the types of resources identified. A modified Pennsylvania Historic Resource Survey Form Photo/Site Plan Sheet containing additional survey information and a photograph was prepared for each of these sites.

Intensive Survey and Nomination

From the reconnaissance level inventory data and the survey records already on file, the Historic Preservation Trust identified farming related resources that warranted further evaluation for National Register eligibility. A representative sampling of twenty-five sites were selected for intensive level survey utilizing criteria developed to illustrate a wide spectrum of resource variations. For this selection process, a Technical Advisory Committee comprised of individuals knowledgeable about regional agricultural and architectural history was assembled. Concurrent with the final two months of the inventory process, background archival research was gathered for the nomination.

Lancaster County is unique for its abundance of continuously operated historic farms. Such farms have continued as viable economic enterprises because they adapted to technological advances and changing market conditions. The county is fortunate that structures dating from the eighteenth century through the twentieth century continue to be used for their original purposes. Yet the landscape is also becoming more suburban and many farm sites have been compromised due to development. Therefore, the twenty-five sites were chosen to represent the full diversity of Lancaster County's farming heritage, which is not represented by pristine museum pieces but rather typical working examples of evolving farmsteads.

Farming has been a mainstay of Lancaster County since the area's founding. It continues to thrive in most parts of the county. Therefore, the sites selected for the intensive level survey were chosen to represent various periods of the agricultural history of the county. In addition, the sites were chosen to include representation from the various ethnic and cultural groups that founded and currently farm Lancaster County. Plain sect farms add a unique cultural dimension to the county, as do those of the Pennsylvania Germans, as well as English examples. Sites were also selected to reflect the historic patterns of diversified farming activity in the county.

Farms retaining a high level of physical integrity were chosen to illustrate various aspects of the county's agricultural history. Yet, because of its historic ability to adapt to change, the farming community survives today. Sites were chosen that illustrate the evolution of farming and architectural styles that have effected the Lancaster County farm. With the increasing suburbanization of Lancaster County, many farming related resources have lost the context of their associated farmland, and in some cases even their associated farm complexes, yet are significant vestiges of the historic importance of farming in these areas. The survey examined examples of such sites, the reasons why they are no longer in farming use, and the contribution they continue to make as indicators of the county's broad historic pattern of farming.

Pennsylvania Historic Resource Forms were completed for each site and submitted to the Pennsylvania Historical and Museum Commission (PHMC) for review. Upon acceptance by the PHMC, six representa-

tive sites were selected by the Historic Preservation Trust and National Register nominations were prepared for them based on this Multiple Property Documentation Form.

The Multiple Property Documentation Form was developed based on the results of all eras of survey work completed by the Historic Preservation Trust and utilized both existing research and extensive primary and secondary sources. A similar nomination prepared for Berks County in 1991 was used as a model to which local architectural variations and history were applied. The following sources were used extensively: Robert F. Ensminger, *The Pennsylvania Barn*, Joseph W. Glass, *The Pennsylvania Culture Region: A View from the Barn*, and Amos Long, *The Pennsylvania German Family Farm.*

Analysis of Survey Data Relating to Farming Resources In the Lancaster County Historic Site Survey

The majority of rural sites recorded in the Lancaster County Historic Sites Survey, excluding those within rural villages, are farm related. Prior to the beginning of the 1992 Reconnaissance Level Survey, the Survey had recorded 4,644 sites in the rural areas of the county. Approximately 7,830 sites were added to these areas in 1992. None of pre-1992 sites were computerized, making quantitative analysis difficult. Computer data entry and analysis of the 1992 survey is not yet complete. However as part of this project, West Hempfield Township was selected as a representative sample for analysis. In addition, typed indexes of the original survey were consulted.

There are 418 sites recorded in West Hempfield Township:

- 331 Farm related resources
  - 110 Farmhouses only
  - 83 Farmsteads
  - 130 Working farms
  - 3 Barns
  - 3 Family graveyards
  - 1 Smokehouse
  - 1 Tenant house
- 87 Non-farm related resources, including 1 mill and one tobacco warehouse

An index card system for the pre-1992 survey records arranges them by "Original Use". While evidence suggests the section labelled "Farms and Farmsteads" is incomplete, the majority of rural sites are found in this category. Of the remaining sites approximately one hundred twenty-five are barns. Agriculture related buildings represented include approximately fifty mills, rural schools, lime kilns, and a grange hall.

As part of the development of this Multiple Property Documentation Form, twenty-five sites were intensively surveyed. From these, six sites were chosen and a National Register of Historic Places Registration Form was prepared for each. These survey cards and nominations provide a substantial body of background data for this multiple property documentation form. The following is a summary of these sites:

The six sites for which National Register of Historic Places Registration Forms were completed were:

1) ***Windom Mill Farm,*** Manor Township, Site #071-35-001: The resources that comprise this site illustrate a wide array of agricultural activities - farming, commerce, and manufacturing - important to Lancaster County from the settlement period to the present. The buildings illustrate architecture typical to rural Lancaster County. That is, they exemplify the trend of the latter half of the eighteenth century whereby Germanic and English stylistic influences were mixed to bring about a restrained, rural vernacular style. This handsome complex evolved from a farm, to a mill, to a small cross-roads community complete with a post office. Windom Mill Farm continues to operate as a farm within an agricultural setting.

2) ***Shreiner Farm,*** Manheim Township, Site #071-34-0015: The Shreiner family farm is an early nineteenth-century agricultural complex on the north side of Oregon Pike, southwest of the village of Oregon in Manheim Township. The irregularly shaped 51.5 acre parcel is located within an area in transition between agricultural use and intensive suburban development. A farmstead, consisting of seven structures, a stone farmhouse, stone Pennsylvania bank barn, frame tobacco barn, frame and stone summer kitchen, and three frame sheds, is located toward the southwest corner of the farm along Oregon Pike. The farm buildings are sited on a working farm that has been owned by a single family since an original land grant from William Penn to Hans Adam Schryner in 1743. It has evolved to meet the changing needs of agricultural business, while still retaining its rural feel and fine stock of period buildings. The farm has received both the Century Farm and Bicentennial Farm designations.

3) ***Habecker Farm,*** East Hempfield Township, Site #071-19-0088: The Habecker Farm is a 90.4 acre parcel located in a low stream valley at the northwest corner of the intersection of US Route 30 and Rohrerstown Road. As it presently exists, the farmstead includes a brick farmhouse, a frame Pennsylvania bank barn, a brick tenant house, two frame tobacco barns, a summer kitchen, a garage, a pigsty, a milkhouse, a creamery, a springhouse, and an aircraft hangar, all of which are oriented around Spring Valley Road. The farm is part of a 230 acre tract acquired by Abraham Brubaker in 1793 and on which he began to construct a permanent farmstead in 1797. Since 1853, the farm has been owned by the Habecker family and all of the existing buildings date from their period of occupancy. Although surrounded by commercial and residential development, the now ninety acre site remains under cultivation as a working farm and represents a typical mid nineteenth-century Lancaster County farm complex.

4) ***Christian and Emma Herr Farm,*** West Lampeter Township, Site #071-60-0022: The Christian and Emma Herr Farm is representative of a typical Lancaster County agricultural complex with architectural elements dating from the eighteenth century through the present. The farm has been under the ownership of one family since it was created. The farmstead includes a farmhouse, barn, tenant house, tobacco barn, shed, garage, and cow barn all grouped near the road along a farm lane. The house and tenant house are sited perpendicular to the road, facing one another, and are the closest buildings to it. Remaining outbuildings are are located between the houses and the barn, which is located furthest from the road.

5) ***David Davis Farm,*** Earl Township, Site #071-14-0020 & #071-14-0044: The David Davis Farm, which was originated by Welsh settler David Davis circa 1730, is an excellent example of the evolutionary nature of many Lancaster County farms through several generations of ownership by differing cultural groups. While it continues to reflect some of its early Welsh characteristics, and therefore evidences the eighteenth-century Welsh settlement in this portion of the county, it also exhibits the influences of subsequent generations of Amish and Mennonite farmers. The largely intact farmstead, consisting of a farmhouse, bank barn, springhouse, tobacco barns, sheds, and a family cemetery, includes resources dating from circa 1750 through the early twentieth century.

6) ***Bausman Farmstead,*** Lancaster Township, Site #071-29-0004 & #071-29-0019 The Bausman Farmstead is an example of the "farming resources having lost their agricultural context" variation of the property type "the farm." The farmstead consists of a brick dwelling, brick end barn, and stone still house, located on a 4.8 acre tract on the south side of Millersville Pike, and a later brick mansion house, set on a separate 1.2 acre tract on the north side of Millersville Pike. Although the remainder of the original 317 acre farm has been sold and is now covered by dense twentieth-century residential development, the remaining structures continue to reflect the eighteenth and nineteenth-century development of the farm complex. As such, it is significant for its relationship to Lancaster County agriculture, the county's principal character defining historic economic activity from the eighteenth century to the present.

The remaining sites that were intensively surveyed include:

7) ***Michael Schindel House,*** Manor Township, Site #071-35-0095: The Michael Schindel house, built in 1816, is a fine example of a vernacular Federal style Lancaster County farmhouse with Germanic details and of the evolution of the Pennsylvania style farmhouse. No longer part of a working farm, the house, a summer kitchen, and a smokehouse are surrounded by residential development and the complex is representative of the "farming resources having lost their agricultural context" variation of the property type "the farm."

8) ***Hostetter Farm,*** Lancaster Township, Site #071-29-0056: The Hostetter Farm is a working farm complex that includes a 1745 Germanic style stone farmhouse. The site is representative of a typical Lancaster County farm and exhibits evidence of all periods of its evolution since the mid eighteenth century.

9) ***Benjamin Herr Farm,*** W. Lampeter Township, Site #071-60-0071: The Benjamin Herr House is an example of the early twentieth-century conversion of many Lancaster County farms for use as country or suburban estates. Built for Herr in 1844, the house was remodeled by a wealthy New Jersey businessman in 1931.

10) ***Shenk Farm - Amos H. Martin Farm,*** Manor Township, Site #071-35-0204: The Shenk Farm represents an early twentieth-century farm complex that was later acquired for use by a gentleman farmer and subsequently became a suburban residence. The complex retains a barn, chicken house, and cabin.

11) ***Martin Barr Farm,*** Strasburg Township, Site #071-52-0014: The Martin Barr Farm retains an architecturally significant early eighteenth-century stone farmhouse within a working farm complex that includes a stone end bank barn, a tobacco barn, a lime kiln, and other outbuildings.

12) ***Engle Farm,*** Conoy Township, Site #071-11-0090: The Engle Farm is a working farm that retains a Federal style farmhouse, frame barn, and other outbuildings.

13) ***Rohrer's Farm and Mill,*** Paradise Township, Site #071-43-0027: The Rohrer's Farm and Mill complex retains two farmhouses, a working mill, barns, ice houses, and other outbuildings. The site retains evidence of a well established nineteenth and early twentieth-century ice business that utilized the existing mill ponds and ice houses. In addition, the water powered mill continues to operate with much of its original mid-nineteenth-century equipment intact.

14) ***Stauffer-Breaker Lane Farm,*** East Earl Township, Site #71-18-0064 & #71-18-0066: The Stauffer-Breaker Lane Farm is a working farm that retains an evolutionary complex of buildings.

15) ***Stoner Farm,*** W. Lampeter Township, Site #071-60-0035: The Stoner Farm is no longer a working farm, but it retains an intact farmstead including a mid nineteenth-century farmhouse, a large frame bank barn, and other outbuildings.

16) ***Kirk-Haines Farm,*** Little Britain Township, Site #071-32-0027: The Kirk-Haines Farm retains a relatively rare Quaker farmhouse dating from circa 1820. The farm is a working one, with the land leased by its owner to an Amish farmer.

17) ***Erisman/Snyder Farm,*** East Donegal Township, Site #071-16-0002: The Erisman-Snyder Farm is located within a traditionally Scotch-Irish section of the county and remains a working farm. The complex includes a stone and brick Federal style farmhouse, an "English" barn, and other outbuildings.

18) ***Schneder Farm,*** Brecknock Township, Site #071-4-0012: The Schneder Farm remains a working farm although its exceptional Federal style farmhouse has been subdivided as a separate residence.

19) ***Coble Farm,*** W. Donegal Township, Site #071-57-0009: The Coble farm is a working farm that retains an architecturally significant circa 1800 farmhouse, a large and well detailed stone barn barn, and other farm buildings.

20) ***Barclay Farm,*** Fulton Township, Site #071-27-0009: The Barclay Farm includes a stone and brick farmhouse illustrating the transition between Georgian and Federal styles in Lancaster County. The complex retains only one other historic building, a springhouse, with remaining buildings being of recent construction. The site is historically related to the adjacent Ballance Meeting House and the early Quaker history of this area of Lancaster County.

21) ***Risser Farm,*** Mount Joy Township, Site #071-40-0005: The Risser Farm is representative of a typical eighteenth-century farm that has remained in the ownership of a single family since it acquisition from William Penn. The farm is a working one and its buildings include an 1811 stone farmhouse, a stone and frame bank barn, a summer kitchen, and a large complex of related ancillary buildings.

22) ***Pleasant Acres Farm,*** Rapho Township, Site #071-48-0291: Pleasant Acres Farm, as it is now known, is a working farm that includes a vernacular early nineteenth-century frame and log farmhouse with a complex of frame barns and outbuildings.

23) ***Brackbill Farm,*** Paradise Township, Site #071-43-0024: The Brackbill farm is representative of an eighteenth-century Pennsylvania German farm complex that has in recent years been acquired and remodeled by Amish farmers. The house retains much of its original character, yet exhibits alterations common to many Amish farms, including the enclosure of a porch, the addition of a dawdy haus, and certain interior plan changes.

24) ***Keneagy Farm,*** Paradise Township, Site #071-43-0070: The Keneagy Farm is also representative of a non-Amish farm that has been acquired and altered to meet the needs of an Amish farm family. The nineteenth-century farmhouse has been altered by extensive additions. Like the Brackbill farm, the complex retains a highly significant barn; in this case a relatively rare triple deck barn.

25) ***Stoltzfus Farm,*** Leacock Township, Site #071-30-0038: The Stoltzfus Farm is historically significant as an example of a typical Lancaster County Amish farm. The farm has been under Amish ownership since 1825 and its late nineteenth to early-twentieth-century buildings reflect many of the architectural characteristics of the county's Amish character-defining population.

General Information

The project was completed between 1 January 1992 and 30 June 1993. Project personnel included David B. Schneider, Executive Director of the Historic Preservation Trust, who served as the Project Director, author of the Multiple Property Documentation Form, and co-author of the six nominations. Heidi Pawlowski, Rural Preservation Specialist for the Trust, completed most of the fieldwork for the reconnaissance level inventory and intensive level survey. She was also primarily responsible for research for the six individual nominations and co-authored them. Edwin Shock, a volunteer intern, assisted with research relating to the national context of Lancaster County farming. Nancy J. Haubert provided clerical assistance throughout the project.

Members of the Advisory Committee Technical Advisory Committee were: Ivan Glick, a local author and authority on agricultural history, barns, and Pennsylvania German architecture; Gary Baer, an authority on local architecture and construction; Christian Earl Eaby, a local attorney; Joseph Glass, retired Professor of Geography at Millersville University and author of *The Pennsylvania Culture Region*; Clarke E. Hess, an authority on Pennsylvania German and Mennonite art, history, and architecture; James Kurtz, a local historian and cultural resource planner for the Lancaster County Planning Commission; and Alan Musselman, Executive Director of the Lancaster Farmland Trust. In addition, the draft Multiple Property Documentation Form was reviewed by Prof. David Schuyler, of the American Studies program at Franklin & Marshall College; Steve Miller, of the Landis Valley Museum; and Thomas Daniels, of the Lancaster County Agricultural Preserve Board.

Notes for Section G

[1]Due to the cultural significance of plain sect farms, many of which have been substantially altered, this requirement was loosely applied to these resources.

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