

V. CONCLUSIONS

A. PATTERNS OF SETTLEMENT

The Dawsons built their house on a road. This simple statement, hardly surprising from our point of view, tells us something important about life in eighteenth-century Delaware, and about how we should practice historical archaeology. Settlement in the Chesapeake region of Virginia and Maryland was for a long time focused not on roads, but on rivers and creeks. Every plantation was oriented toward the water, and, ultimately, toward Europe, the market for the tobacco that was the Chesapeake settlers' main product. The settlement of Delaware also began along waterways, from the Swedish fort at Wilmington to the Dutch settlements at Appoquememen

(Odessa) and Swanendael (Lewes) to the houses of Richard Whitehart and John Powell, built along the Leipsic River in the 1680s and 1690s (Gretler et al. 1995). The custom of building on the water extended even to creeks that were useless for shipping, such as Augustine Creek in New Castle County, where Samuel and Henrietta Mahoe built their farm in the 1720s (Bedell et al. 1998b). But as the eighteenth century wore on, the forests of central Delaware were cleared for farms, and the countryside filled up with people, roads and towns came to play a greater role in rural life. In eighteenth-century Delaware, most farm products on their way to market started their journey on a road. Where roads crossed navigable creeks, landings were established, and small towns grew up around the landings (Catts et al. 1989). This pattern of development promoted town growth and economic diversity much more than the southern system of isolated plantations, each with its own landing to carry trade directly to the world.

Although the Dawsons' house was oriented toward a road, it was not built right next to the road. The "Forrest Road" has been supplanted by U.S. 13 and other modern highways, but from a study of nineteenth-century maps (see Figure 3) we estimate that it ran about 250 feet north of the Dawsons' cellar. As may be seen from any of the atlases of nineteenth-century Delaware, many farms were sited in this way, along a road but up to 500 feet distant from it. This custom of placing farms at some distance from the road makes it challenging for archaeologists to find them. If old farms had regularly been placed adjacent to the road, as they were in parts of Pennsylvania and New England, one would find them by looking within 100 feet or so of all known colonial roads. Having to extend the search for 300 or even 500

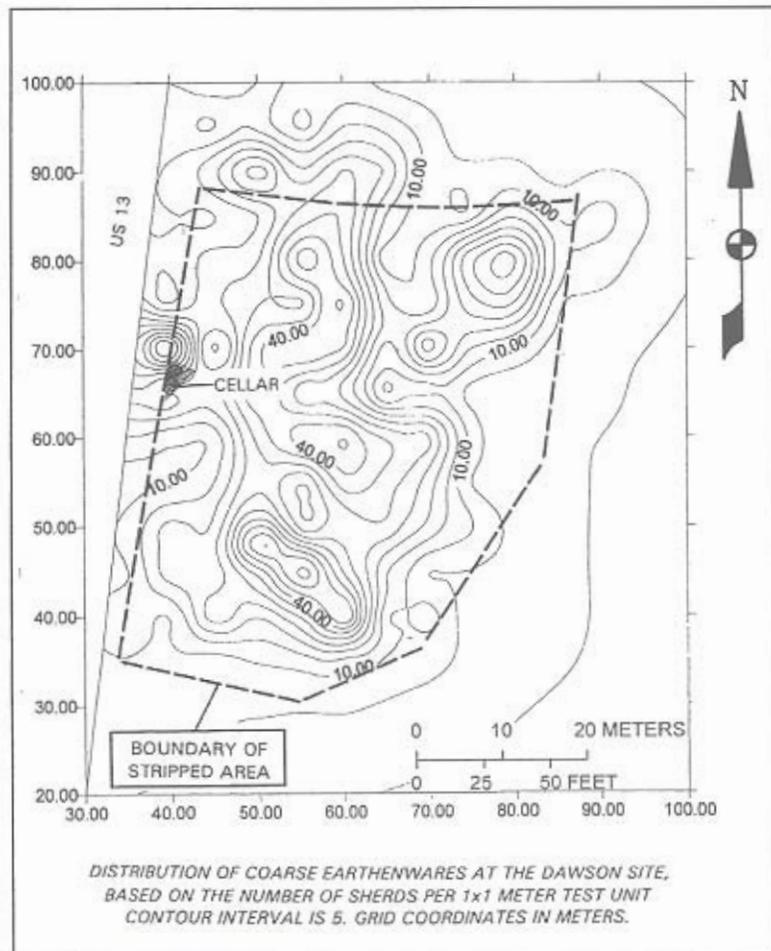


FIGURE 22: Distribution of Coarse Earthenwares in the Plowzone

feet on either side of each road requires a vastly greater effort. To make matters worse, some Delaware farmers continued to build along creeks. In order to be sure that we have found all the eighteenth-century farms in any part of Delaware, therefore, we have to look in many different places, perhaps even in every suitable building location.

B. RECONSTRUCTING THE DAWSON FARM

Because about half of the Dawson farm was destroyed during the construction of U.S. 13, and much of the rest was disturbed by other twentieth-century construction activities, we did not find much good evidence of how the farm was laid out. No fences or boundary ditches were identified, and no structures other than the house cellar. The only information we have on the layout of the farm comes from the surveyor's sketch of 1745 (see Figure 7) and the distribution of artifacts in the plowzone.

Figures 22-25 show the distribution of four artifact types in the plowzone of the Dawson Site. The figures were produced using a computer program called Surfer, which turns a set of data points into a continuous surface by estimating the values in between. The contour lines represent the number of artifacts, in much the same way that the contour lines on a topographic map represent elevation. The peaks in the distribution—that is, the places where the most artifacts were found—appear on the maps as groups of concentric circles. The information provided in these figures must be treated with caution because of the high degree of disturbance on the site. No map of the total artifact distribution has been provided, because the artifact total includes hundreds of twentieth-century items that have nothing to do

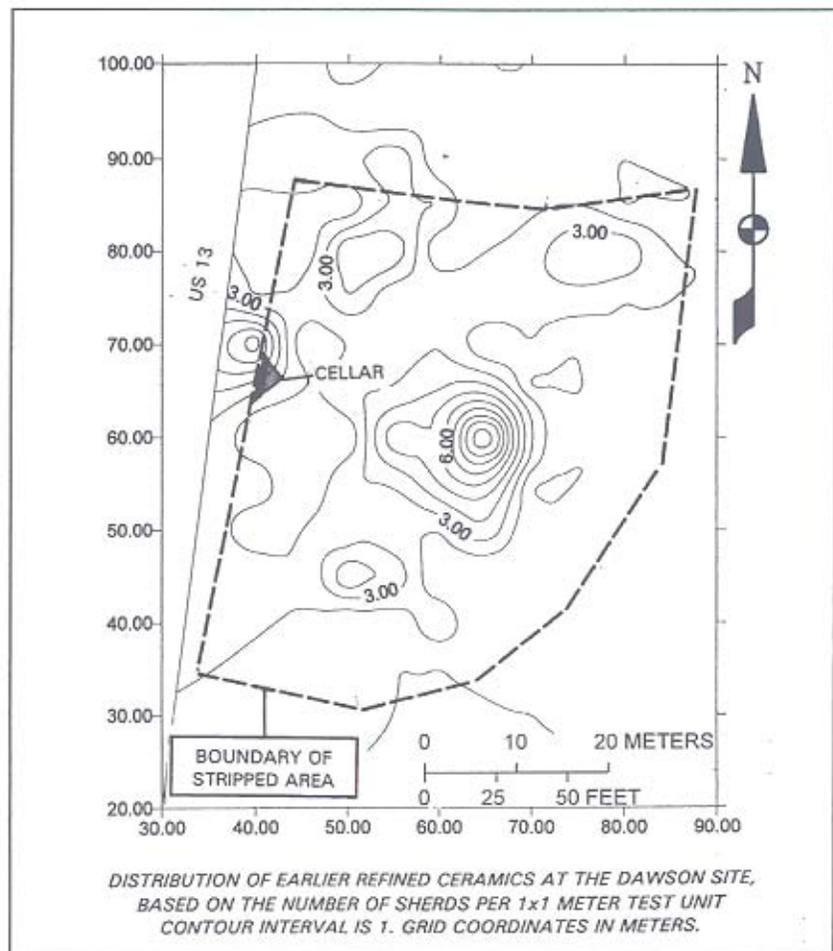


FIGURE 23: Distribution of Refined Ceramics Dating to Before 1760 in the Plowzone

with the Dawsons. Instead, Figure 22 shows the distribution of coarse earthenwares. Coarse earthenwares made up more than 40 percent of the total artifacts from the site. Although these ceramic wares are still made, they are no longer common, so they are a reasonable approximation of the overall distribution of eighteenth-century artifacts. Figure 22 shows high counts of coarse earthenwares around the cellar and in a wide area to the southeast, roughly in the center of the site. The center of the site was, along with the southwest corner, the most intact portion of the Dawson Site, so we can reasonably assume that the artifacts found in this area represent eighteenth-century activity or trash disposal. It is harder to know what to make of the high counts of coarse earthenwares in the northern and southeastern parts of the site, since these areas

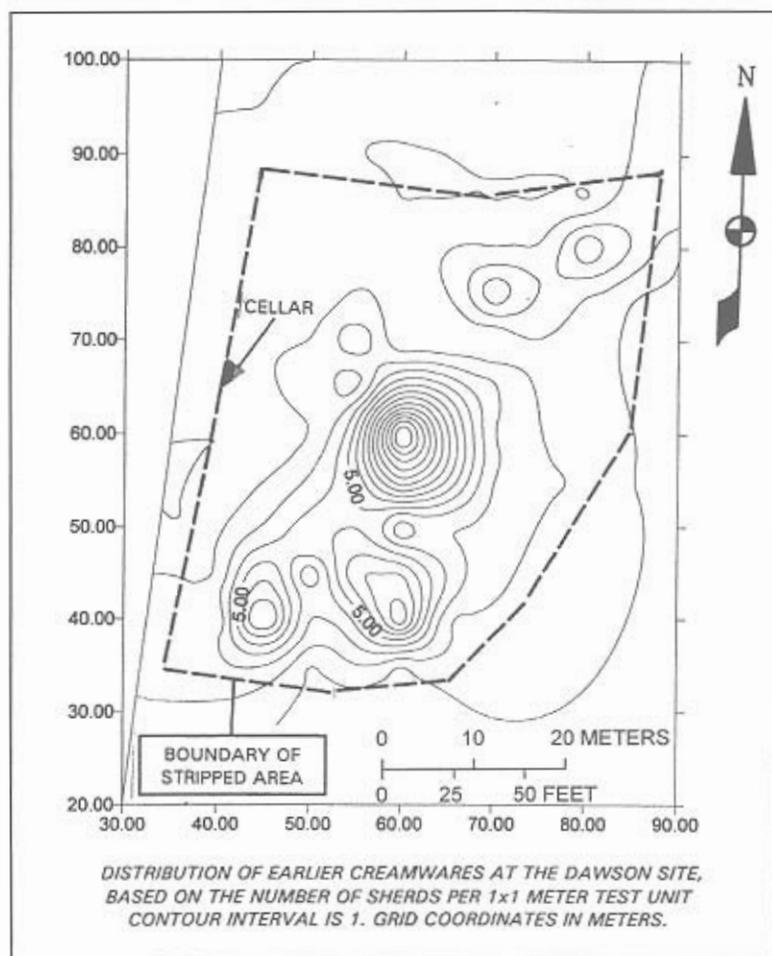


FIGURE 24: Distribution of Creamware (1762-1820) in the Plowzone

had been badly disturbed. After the extended Phase II testing we thought the redware concentration in the northeast corner might indicate a work area, perhaps associated with the malthouse. Further investigation showed, however, that the soil across the northern part of the site was too disturbed to support this interpretation. Nevertheless, this redware must have come from somewhere in the northern third of the site. The earth-moving machines that caused the disturbance could have pushed artifacts around within the area they traversed, but they would not have brought in redware from somewhere else.

Figures 23 and 24 show the distributions of creamware (1762 to 1820) and earlier refined ceramics, primarily delftware (1640-1800) and

white salt-glazed stoneware (1720-1805). We wanted to know whether the distribution of refined wares was different from that of coarse wares, and whether the distribution of refined ceramics changed over time. Figure 23 shows that the distribution of the earlier refined wares is essentially the same as that of the coarse wares. We could not identify any special areas where artifacts of one type or another predominated, or any other indication of what archaeologists call "activity areas." However, Figures 23 and 24 are quite different from one another; very little creamware was found in the northwestern part of the site, over the cellar. It seems possible, based on this distribution, that the tenants who lived on the site after Richard Dawson sold the property in 1756 built a new dwelling in the center of the site, where the creamware counts are highest. However, no foundations were found in this area, nor was there any other good indication that a structure once stood there. There was no well in the area, and a house in the center of the site ought to have had a well within the area we excavated. (We assume that the Dawsons' well was west of

their house, under U.S. 13.) Also, work on other sites has shown that high plowzone artifact counts are most often associated not with buildings, but with yard areas between buildings (Bedell et al. 1998a; Grettler et al. 1995). It still seems most likely that the later house was west of the cellar, under U.S. 13.

The area of high artifact counts in the center of the site therefore seems to represent a working yard behind the Dawsons' house. Archaeology turned up no direct indications of buildings in this area, but there is indirect evidence that some kind of structure once stood there. This evidence is the distribution of handwrought nails (Figure 25). The highest counts of handwrought nails were found over the cellar, in the northeastern, badly disturbed part of the site, and in the south-central

area, roughly between Features 7 and 12. Since this part of the site was relatively well preserved, the nails may have come from a shed or other small structure that stood nearby.

Archaeology tells us only that the Dawsons' house had a cellar, that they scattered trash around a working yard behind their house, and that there may have been some small buildings around that yard. Figure 26, our reconstruction of the Dawsons' farm, is therefore based largely on the 1745 surveyors' sketch of the property. It shows the Dawsons' house as a one-story frame structure, and a log barn, a shed, and an open-sided malthouse, spread out along the road.

Among the questions that Figure 26 does not answer is where the various members of the Dawson household lived. If the Dawsons followed English custom, Thomas and Mary slept on the first floor of the house, in their best bed. Their children may have slept in the same room, or in the loft overhead. Jenney, the Dawsons' African-American slave, may also have slept in the loft, or possibly in the basement. Separate slave quarter structures were rather rare in Delaware, and there is no reason to think that the Dawsons ever had one. Most Delaware slave-owners had four or fewer slaves, and free and enslaved members of the household generally lived in close proximity, often sharing the same roof. This proximity made their relationships much closer (although not necessarily better) than those between owners and slaves on the great southern plantations.

C. HOUSING IN EIGHTEENTH-CENTURY DELAWARE

The most interesting feature at the Dawson Family Site was the cellar; in fact, it was the only feature on the site interesting for more than just the artifacts in it. The cellar contained sufficient

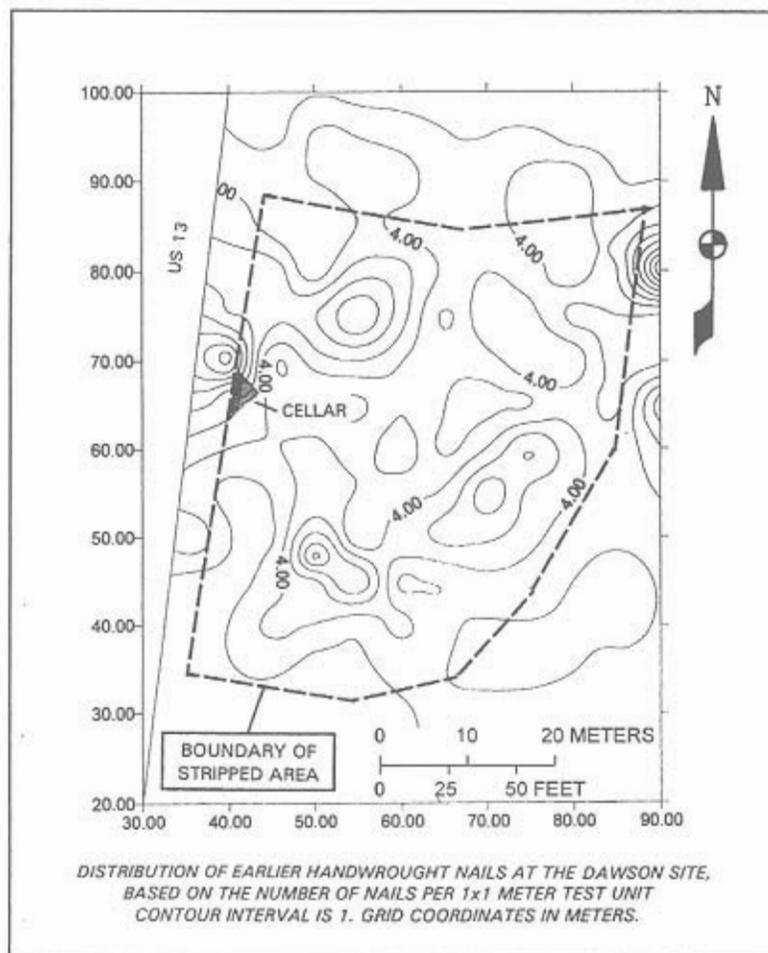


FIGURE 25: Distribution of Handwrought Nails in the Plowzone

architectural remains, in the form of stains left by the structural beams, for us to reconstruct how the Dawsons' house was built. Our knowledge of the Dawsons' house reinforces two key points in our understanding of eighteenth-century Delaware houses: their great variability, and the temporary way many of them were built. One of the most striking things about the dozen or so eighteenth-century houses that have been excavated in the state is how different they are from one another. No two are alike. (Except, perhaps, those that have left no trace at all.) The Dawsons' house is the only one built with wooden sills laid in the bottom of a cellar. John Powell's house also included a section built on ground-laid sills, but they were laid in a shallow pit (see Figure 17). It seems likely that the cellar identified at the Dawson Family Site underlay only part of the

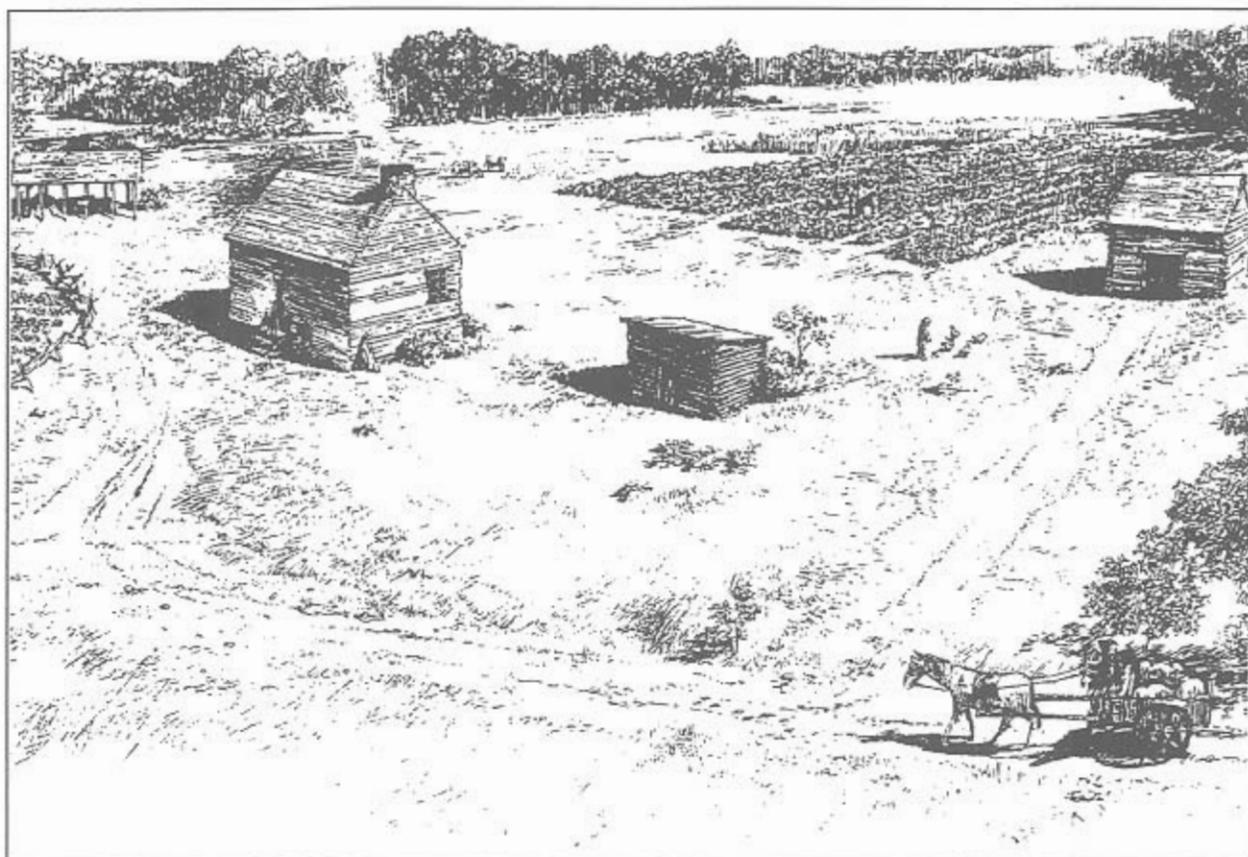


FIGURE 26: Reconstruction of the Dawson Farm Around 1745

house. A deep partial cellar was also found at the Augustine Creek North Site, a tenant farm established around 1750 (Bedell et al. 1998b). That cellar measured 5 by 10 feet and had bulkhead steps. The other excavated Delaware houses all had full basements, or only small, shallow root cellars (Table 22).

The most substantial rural eighteenth-century houses to have been excavated in Delaware are at the Charles Robinson Plantation (Thomas et al. 1994) and the McKean/Cochran Farm (Bedell et al. 1998a). Charles Robinson was a well-to-do farmer who styled himself “yeoman,” and the remains of his house, built around 1762, consisted of stone foundations in a full basement measuring 23 by 26.5 feet. Two houses were identified at the McKean/Cochran Farm, both with stone foundations and full basements. The earlier house, built by tenants around 1750, measured 15 by 18

feet, and the later house, built between 1790 and 1800, measured 18 by 28 feet (Plate 25). The later house may have been the residence of Letitia McKean, a wealthy woman, and niece of the governor of Pennsylvania. Samuel and Henrietta Mahoe’s house at the Augustine Creek South Site also had a full basement, and it probably had brick foundations, although almost all the bricks had been removed. This house, probably built in the 1720s, measured 16 by 25 feet (Bedell et al. 1998b). The oldest section of the house at the William Hawthorn Site had stone foundations measuring 21 by 29 feet, but no cellar; written records tell us that it was two stories tall and made of logs (Coleman et al. 1984).

The other eighteenth-century Delaware houses studied were much less substantial than these five. On the majority of these sites, evidence of the main house was actually meager.

Table 22. House Remains at Rural Eighteenth-Century Sites in Delaware

Site	Occupation Dates	House Dimensions*	Description of Remains
John Powell ¹	1690-1730	15x30?	Log sills in shallow cellar, 10x11 feet, plus shallow pits and possible posts
Thompson's Loss and Gain ²	1720-1780	24x18	Post in the ground, with two hearths and several small root cellars
Augustine Creek South ³	1724-1760	16x25	Full basement with traces of brick foundations
William Strickland ⁴	1726-1762	24x17	Partial post pattern with large root cellar
Dawson Family	1740-1760	12x14?	Wooden sills in deep basement, 11.8x13.6 feet
Loockerman's Range ⁵	1740-1765	?	Hearth and small root cellar
Whitten Road ⁶	1750-1800	24x16	8x16-foot post pattern with possible 16x16-foot addition, based on pits
McKean/Cochran I ⁷	1750-1790	15x18	Stone foundations in full basement, probable stone exterior chimney
William Hawthorn ⁸	1750-1816	21x29	Stone foundations of 2-story log house
Charles Robinson ⁹	1762-1781	23x27	Stone foundations in full basement
Benjamin Wynn ¹⁰	1765-1820	24x30?	Partial post pattern with 10x10-foot cellar and wooden chimney
Bloomsbury ¹¹	1770-1814	15x20?	Blue beads that may have marked dwelling corners
Marsh Grass Site ¹²	1780-1820	16x20?	Partial post pattern with interior earthen hearth and small root cellar
McKean/Cochran II ⁷	1790-1830	18x28	Stone foundations in full basement, one interior stone chimney

*Dimensions in feet. Sources: ¹Grettlar et al. 1995; ²Guerrant 1988; ³Bedell et al. 1998b; ⁴Catts et al. 1995; ⁵Grettlar et al. 1991; ⁶Shaffer et al. 1988; ⁷Bedell et al. 1998a; ⁸Coleman et al. 1984; ⁹Thomas et al. 1994; ¹⁰Grettlar et al. 1996; ¹¹Heite et al. 1998; ¹²Thomas 1983.

Eighteenth-century builders used several techniques that leave little or no trace on a plowed site. Sometimes wooden wall sills were laid directly on the ground, as in the Dawson cellar. Log structures often had thin brick or stone foundations that were set in very shallow trenches or even laid directly on the ground surface. Frame buildings were sometimes raised on brick piers, with small square foundation piles under the corners and other structural points. These, too, were often set directly on the ground, and only rarely was one dug deep enough to survive plowing. Sometimes wooden blocks were used instead of brick piers. Wooden blocks might be set in quite deep holes or they might be set on the surface. As a result of these techniques, the architectural remains at many Delaware sites are confusing and fragmentary. No foundations of any

kind were found at the Bloomsbury Site (Heite et al. 1998), and there was no trace of the later structures that must have stood at the Whitten Road Site. At Bloomsbury, the size of the house has been estimated as 15 by 20 feet, based on a void among the other features of the site and the discovery of four blue beads in the plowzone that may once have marked the building corners, but from this information we can only guess at the size and nature of the building. The Loockerman's Range Site had not been plowed, but even so the only remains of the tenant house that stood there were a hearth and a small root cellar (Grettlar et al. 1991). At the John Powell and Whitten Road sites, house dimensions were estimated from clusters of shallow pits that may actually have had nothing to do with those houses (Grettlar et al. 1995; Shaffer et al. 1988). At several sites, the

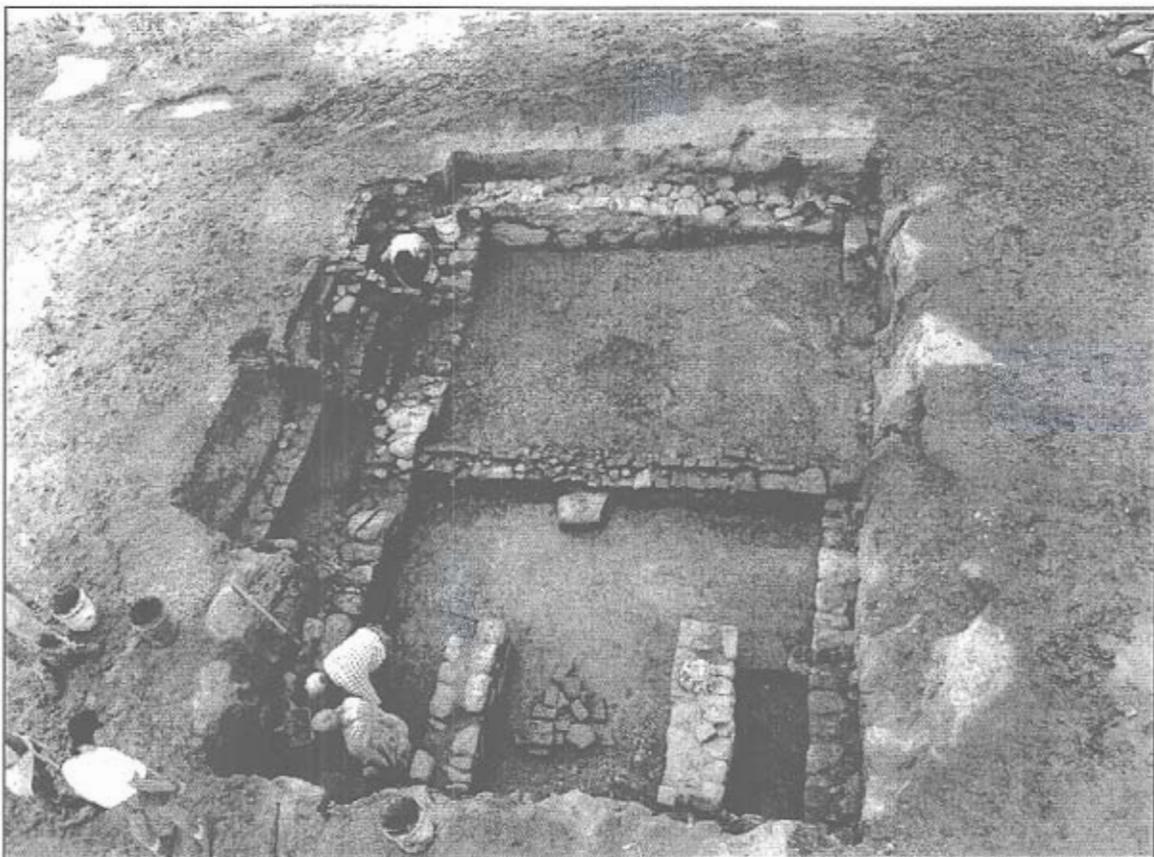


PLATE 25: House Foundations at the McKean/Cochran Farm, circa 1790

presence of houses has been surmised from groups of posts that do not really trace out good rectangular shapes, and it is difficult to imagine what construction technique could have produced these partial post patterns (Catts et al. 1995; Grettler et al. 1995, 1996; Thomas 1983). Perhaps these houses were set on wooden blocks that were dug at differing depths into the soil. The deeper holes have survived and the shallow ones have been plowed away.

Wooden blocks and ground-laid wooden sills are two techniques that archaeologists call “impermanent”; houses built in these ways were not intended to last long. In eastern North America, wood in direct contact with the ground soon attracts termites and other destructive pests and can be expected to rot away in a decade or two. The widespread use of these temporary construction techniques tells us that eighteenth-century farmers, who, after all, lived in a frontier society, were not all building for the future. They

built to satisfy their immediate needs, perhaps thinking that permanent houses and barns could be built later, when their farms were cleared and they had managed to save some money. After examining the archaeological record of Delaware, we can feel thankful that, in this case anyway, “they don’t build them like they used to” (Chappell 1994).

One temporary building technique that was widely used in colonial America, called post-in-the-ground or “earthfast” building, is a great boon for archaeologists because it leaves permanent traces in the ground. With this technique, a house was framed around tall posts that were set into deep holes in the ground, much like a modern pole barn. The postholes were almost always deep enough to survive plowing, leaving a clear pattern for archaeologists to find. The house at Thompson’s Loss and Gain was built in this way, allowing us to measure its dimensions accurately as 18 by 24 feet (Figure 27) (Guerrant 1988).

Conventional earthfast buildings were also found at the McKean/Cochran Farm, the Augustine Creek South, and the Whitten Road sites.

Besides the great variety in construction techniques, these houses also varied came in widely varying sizes. The houses with securely known dimensions varied from 270 square feet (McKean/Cochran I) to 621 square feet (Charles Robinson). The house of Benjamin Wynn, a blacksmith, may have measured 720 square feet. Another interesting detail about the Delaware houses is the great variety in their dimensions. Post houses in the seventeenth-century Chesapeake were almost all 18 or 20 feet wide, and they were constructed of pairs of posts that were either 8 or 10 feet apart; their lengths were therefore always some multiple of 8 or 10 (Carson et al. 1981; Kelso 1984). Henry Glassie (1975) studied eighteenth-century frame houses in the Virginia Piedmont, and was so impressed by the constant repetition of numbers divisible by two or three that he constructed a theory of the carpenters' thinking on the centrality of these numbers. There are no such numerical patterns in the excavated houses of Delaware. We find some houses measured in standard units, like the 15x18-foot house at the McKean/Cochran Farm, but we also find measurements like 11, 17, 26.5, and 11.8 by 13.6 feet. We considered the possibility that the odd numbers represent some other European unit of measurement, such as the south German foot, but the Delaware house dimensions cannot be expressed evenly in any contemporary system of measurement.

Diversity, therefore, is a key feature of eighteenth-century Delaware housing. Some houses were

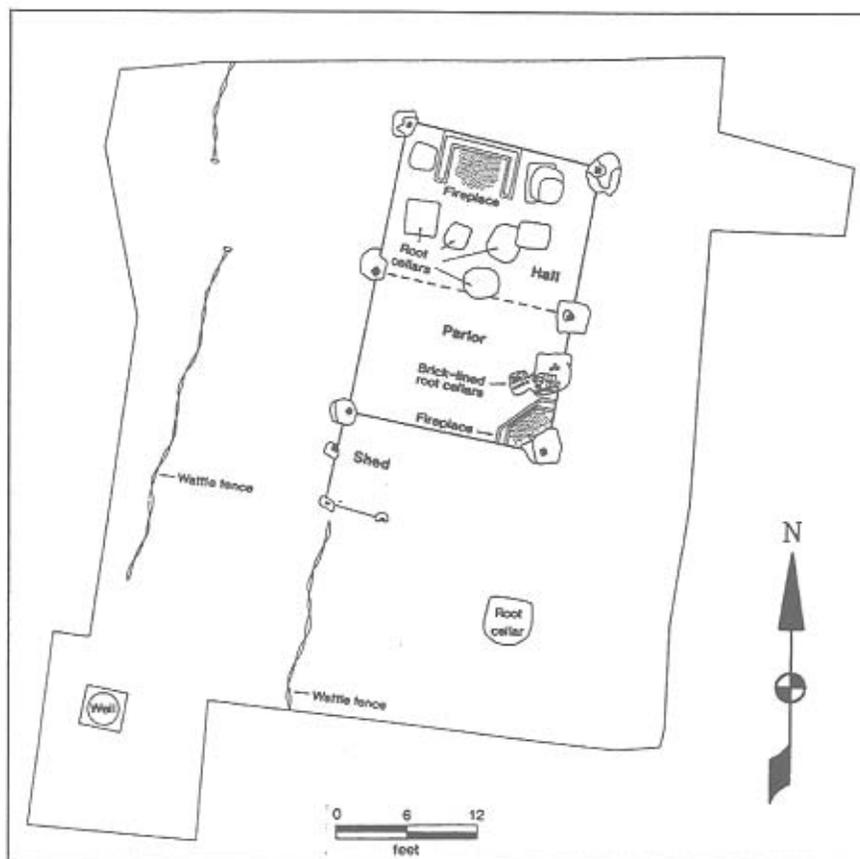


FIGURE 27: Plan of the Post-in-the-Ground House at Thompson's Loss and Gain, 1720-1780 SOURCE: Grettler et al. 1995

large and some were small, some were well built, with basements and strong foundations, and others were slapped together and soon fell apart. There were no common standards for the length of walls, or the ratio of lengths to widths. Perhaps this diversity should be ascribed in part to the diverse cultural origins of the Delaware colony, which included substantial groups of Swedish, Dutch, English, German, Welsh, French, and African immigrants.

D. RURAL INDUSTRY

The rural areas of colonial Delaware did not just produce crops. Rural people logged, hunted, trapped, and fished. They also produced a wide variety of industrial products, and there were many craftsmen and craftswomen among the rural population. It is a myth that pioneering Americans were self-sufficient; they relied on professionals,

from potters and blacksmiths to midwives and attorneys, for many goods and services (Shammas 1982; Ulrich 1990). We cannot fully understand rural society without an appreciation of the diversified rural economy, and the roles that craftspeople and industry played in that economy.

Of course, almost all eighteenth-century farmers engaged in some forms of "food processing" that could, if practiced on a large enough scale, be considered industrial. Such processing activities included butchering meat, making butter and cheese, and pressing cider. Other processing activities widely practiced on farms in the eighteenth century included the making of soap, vinegar, tallow, beeswax, tar, turpentine, dried fruit, bricks, and dressed skins, the manufacture of cloth from wool or flax, and the milling of grain (Tryon 1917). Every farm was in some sense an industrial site.

Some farmers went beyond low-level processing of their own produce and concentrated their efforts on a single craft. The owners of some farms were identified primarily as craftsmen. For example, Samuel Mahoe of St. Georges Hundred identified himself as a weaver (Bedell et al. 1998b), and Benjamin Wynn of Little Creek Hundred called himself a blacksmith (Grettlar et al. 1996). There must have been a range of behavior among these farmer-craftsmen, from farmers who worked at one or several trades in their spare time to craftsmen who did a little farming on the side (Simler 1986). Assessing the relative importance of farming and craft work in these households is a difficult task, given the available records, but it is important enough to be worth attempting even with the limited resources we have available.

Some wealthier farmers became industrialists on a larger scale by building waterpowered mills. In the Middle Atlantic area, in the eighteenth century, mills were used primarily for grinding grain and fulling cloth. Information about the size, sophistication, and distribution of these mills helps us understand the economic basis of the surrounding rural communities. For example, the construction of Thomas Nixon's large, up-to-date

fulling mill on Puncheon Run not far from the Dawson Family Site suggests that woolen cloth was an important product of the Dover area (Liebknecht et al. 1997). Other substantial industries located in rural areas are blacksmith and wheelwright shops (Catts et al. 1994).

Because of the malthouse shown on the 1745 sketch of the Dawsons' farm, rural industry was one of the research areas we hoped to investigate at the Dawson Site. Unfortunately, we found no archaeological trace of the malthouse, or any other evidence of malting or brewing. Research in the written records of New Castle and Kent counties, however, has produced a variety of information on craftsmen, and other information is available from the excavation of the Augustine Creek South, Benjamin Wynn, and Bloomsbury sites, all of which were occupied by rural artisans.

1. Inventory Study

In the random sample of 200 Kent County probate inventories, we found 17 men who were specifically identified as craftsmen, and another seven whose possessions almost certainly indicate that they were craftsmen even though they were not named as such. These men are listed in Table 23. (Question marks indicate men not named as craftsmen in the inventory.) No craftswomen were identified, which is not surprising, since inventories for women are rather rare, and only 17 women were included in the sample. The identified craft specialists span the social range from Captain Philip Kearny, a tanner, whose inventory listed four slaves and more than £200 worth of skins in various stages of treatment, to Robert Shannon, a shoemaker, who owned only the clothes on his back and some "Old shoemaking tools & 21 old lasts," for a total value of just over £2. The craftsmen consisted of five joiners or carpenters, four coopers (barrel-makers), four shoemakers, three tanners, two tailors, two weavers, a saddler, a bookbinder, a mason, and a man with tools for making or repairing watches. The ownership of slaves by Captain Kearny and Hugh Torbert, who both owned tanneries, raises the question of how much skilled craft work was done by slave labor. There

Table 23. Craftsmen in the Kent County Probate Inventories, 1729-1768

Name	Craft	Date	Total Value*	Craft-Related Items	Farm and Livestock
Richard Empson	Cooper	1729	244.18.2	"several sorts of Cooper's worke with staves," "Plains & a cooper's small joynter"	7 horses, 11 cattle, 23 sheep, pigs, wheat, tobacco, flax
Captain Philip Kearny	Tanner	1732	439.2.8	More than £200 worth of hides in various stages	at least 29 cattle, 49 sheep, pigs, geese, bees
John Watkin	Bookbinder (?)	1735	75.15.1	"file and rasp with sundry bookbinder's tools," 2 quiers paper, 67 books	10 cattle, 10 sheep, wheat, rye, corn, oats
James Sharwood	Carpenter	1735	18.6.4	"Joiners tools"	flax, 3 "old poor" horses
Andrew Vance	Carpenter	1739	23.10.6	Iron square, rule, "joynter stock"	3 cattle, 1 pig, "fowls," flax
William Parris	Cooper	1739	33.1.8	"Coopers tooles"	7 cattle, 6 pigs, 2 beehives
Thomas Randle	Watchmaker (?)	1742	10.17.0	"his watch tools, hammer, & small file"	none
John Amyatt	Shoemaker	1744	21.11.8	"An apron & all his shoemakers tools," "dozen awl blades"; "parsell sole leather & upper leather"	2 cattle, flax
Benjamin Johnson	Saddler	1744	43.3.11	Saddler's tools, 16 dozen buckles, leather, 1 pair saddler's shears	2 cattle, 1 pig
John Mannin	Tailor	1748	18.1.6	"Taylor goos & shares," 2 old sleeve boards	2 cattle, 2 sheep, 7 pigs
Robert Shannon	Shoemaker	1748	2.19.6	"Old shoemaking tools & 21 old lasts"	none
William Daws	Weaver (?)	1748	11.19.8	Loom with "geyes & slay"	1 horse, corn, flax
Cornelius Edgmont	Tanner	1750	39.13.8	Tanner's tools, 5 skins, "27½ hides half tanned leather"	none
Joseph Nixon	Mason (?)	1750	11.9.1	"2 old trowels & plum line & rule"	flax and 2 turkeys
Mark Bardon	Joiner	1751	62.18.1	Detailed list of tools worth £3	7 cattle, 2 sheep, flax
Thomas Watson	Cooper (?)	1755	108.03.9	Coopers tools, parcel staves & headings	6 horses, 12 cattle, sheep, pigs, corn, wheat
Isaac England	Joiner	1756	101.15.0	Carpenters tools £8	3 horses, 3 cattle, 8 sheep
William Seeds	Joiner	1760	21.5.5	Joiners tools £7.12; 198 ft pine boards	none

Table 23. Craftsmen in the Kent County Probate Inventories, 1729-1768 (continued)

Name	Craft	Date	Total Value*	Craft-Related Items	Farm and Livestock
Hugh Torbert	Tanner	1760	390.8.4	£132 worth of skins; "curing shop," "tanyard," 3 slaves	19 cattle, 16 sheep, 26 pigs, wheat, corn, flax
Richard Newman	Shoemaker	1763	28.16	"1 set shewmakers tools & lasts, bench, apron" £1.50	none
David Hannah	Cooper	1765	33.3.4	Coopers tools 0.7.6	2 cattle, 6 pigs, wheat, rye, corn
James Johns	Tailor	1766	208.7.9	Tailors tools, thread, "shop goods," shears, sleeve board, "kotchbord," pressing irons	5 horses, 8 cattle, 14 sheep, 36 pigs, 30 geese, crops
Thomas Dean	Shoemaker	1766	22.4.3	Shoemaker's tools	2 horses, 5 cattle, 3 pigs, flax, rye, wheat, rye
Richard Dixon	Weaver (?)	1768	13.11.2	"Weaver's loome & tacklin," 2 spinning wheels	none

*Values in pounds, shillings, and pence.

were not many such large industrial concerns in rural Delaware, but slaves may have done much of the work at tanneries and mills. Many of Delaware's farmers owned one or two slaves, and some of these may have had the skills to work at both farming and craft work, just as their owners did.

Of the 24 craftsmen in the sample, 14, or about 60 percent, also had farms. Their inventories include livestock, crops, and farming implements, in many cases showing that they managed average or even larger-than-average farms. James Johns, who died in 1766, left a well-equipped tailor's shop and also a thriving farm with five horses, eight cattle, 14 sheep, 36 pigs, 30 geese, and quantities of wheat, flax, and corn. Other men kept a few animals but do not seem to have had full-scale farms. The inventory of Benjamin Johnson, a saddler who died in 1744, lists "16 dozen gearth buckles," a quantity of leather, a pair of saddler's shears, and also one horse, two cows, and one pig. Since Johnson was well-off enough to own a wig and clothes with silver buttons, he must have derived most of his income from saddlery. Because these men mixed farming with their craft, we should not consider Table 23 a complete or accurate accounting of craft activity among the 200 people whose inventories were included in

the sample. It is based mostly on how these men identified themselves, or were identified by the neighbors who inventoried their estates, and there is no reason to think that these identifications were consistent. Samuel Mahoe of New Castle County identified himself sometimes as a weaver and sometimes as a "yeoman," or farmer (Bedell et al. 1998b).

Consider two men whose inventories included cooper's tools, Richard Empson (d. 1729) and Thomas Watson (d. 1755). Empson's inventory lists "several sorts of Coopers worke with staves" and some tools, valued at around £4, and he is specifically called a cooper. However, he also had seven horses, 11 cattle, 23 sheep, an unspecified number of pigs, and a wheat crop worth £30; altogether, his livestock and crops were worth more than £100. Thomas Watson had a similar investment in cooper's tools and barrel parts and a smaller farm, but unlike Empson, he is not identified as a cooper. The inventory of Purkins Venables (d. 1768) lists enough tools to have enabled him to practice at least two trades professionally. He had joiner's tools worth more than £6, as much as most of the men identified as joiners, and he also had a loom with tackling and gears and two spinning wheels. Perhaps his wife was the weaver, but if Purkins was a carpenter he

had to fit that work into the time left after running his farm, which included five cattle, four sheep, 23 pigs, three beehives, and crops of corn, flax, and beans. Even some of the men without farms had some livestock or produce on hand. Joseph Nixon (d. 1750) owned little beyond the "2 old trowels & plum line & rule" that suggest he was a mason, but he did have two turkeys and some flax. Certain craft items, especially carpenter's tools, but also cooper's and shoemaker's tools, looms, and partly tanned skins, are rather widely distributed in the inventories and do not necessarily identify the owner as a professional.

One conclusion to be drawn from the inventories is that craft work was highly valued and well paid in eighteenth-century Delaware (cf. Main 1965). Men who had large farms and herds of animals still found it profitable to spend time working as coopers, joiners, and tailors. Why then were some craftsmen so poor? Although the inventories do not suggest a definite answer to this question, the most likely reason is that most of them were young. Many other factors, from injury to incompetence, might have been responsible, but age was probably the most important reason. Three of the 10 craftsmen without farms were in the category of people without beds, which means they probably did not have their own household, and most of these bedless people seem to have been young, single men. If they stayed healthy and had a little luck, some of them could expect to become successful farmers later in their lives.

2. *Archaeology*

The Dawson Family Site is instructive for archaeologists who want to study rural industry, because the Dawsons' documented malthouse left no archaeological remains. Christopher Jones, who lived at the Thomas Williams Site for several years in the 1790s, was identified in the records as a shoemaker, but there was no evidence of shoemaking at the site (Catts and Custer 1990). Some industrial or craft activities may leave no traces in the ground to be discovered 200 years later. Carpentry, the most common trade in the inventory sample, would be hard to document under the best of circumstances. The tools

carpenters used were mostly items that any farmer might have one or two of, and the products of their work (houses, barns) would have been somewhere other than in the carpenter's own yard. Coopering would also be hard to detect, because all farmers had a few barrels lying around, and the most common remains of a tailor's work would likely be thimbles, needles, buttons, and other small sewing-related items that would hardly distinguish a professional tailor or seamstress from an industrious homemaker.

Nevertheless, archaeology can help us learn something about rural craftsmen. At the Bloomsbury Site, dozens of pieces of shoe leather were found preserved in the bottom of a well (Heite et al. 1998). The pieces seemed to be from old shoes that had been salvaged for reusable leather. The shoemaker at Bloomsbury was evidently a recycler of sorts, using parts of some old shoes to repair others, or perhaps to make entirely new shoes. In the same well were found some of the long, curved needles used by shoemakers, and even a pair of needles threaded together in the characteristic shoemaker's style. None of the written records that describe the residents of the site mentions shoemaking, so the archaeology in this case added something entirely new to our knowledge of the residents' economic activities. Such may often be the case when we deal with poor people and members of minority communities, who are not well documented in the eighteenth century (some of the Bloomsbury residents were Native Americans). Archaeology may be the only way we will ever find out about the craft activities of many people who lived on the margins of eighteenth-century society.

The trades of blacksmith Benjamin Wynn and weaver Samuel Mahoe were identified from written records, but the archaeology of their farms helps us form some notion of the balance between their craft activities and farming in their household economies. Benjamin Wynn lived just east of Dover between about 1765 and 1800 (Grettlar et al. 1996). The only structures identified at the site of his residence were a house and a blacksmith shop (Figure 28). The house remains consisted of a small cellar, a hearth or

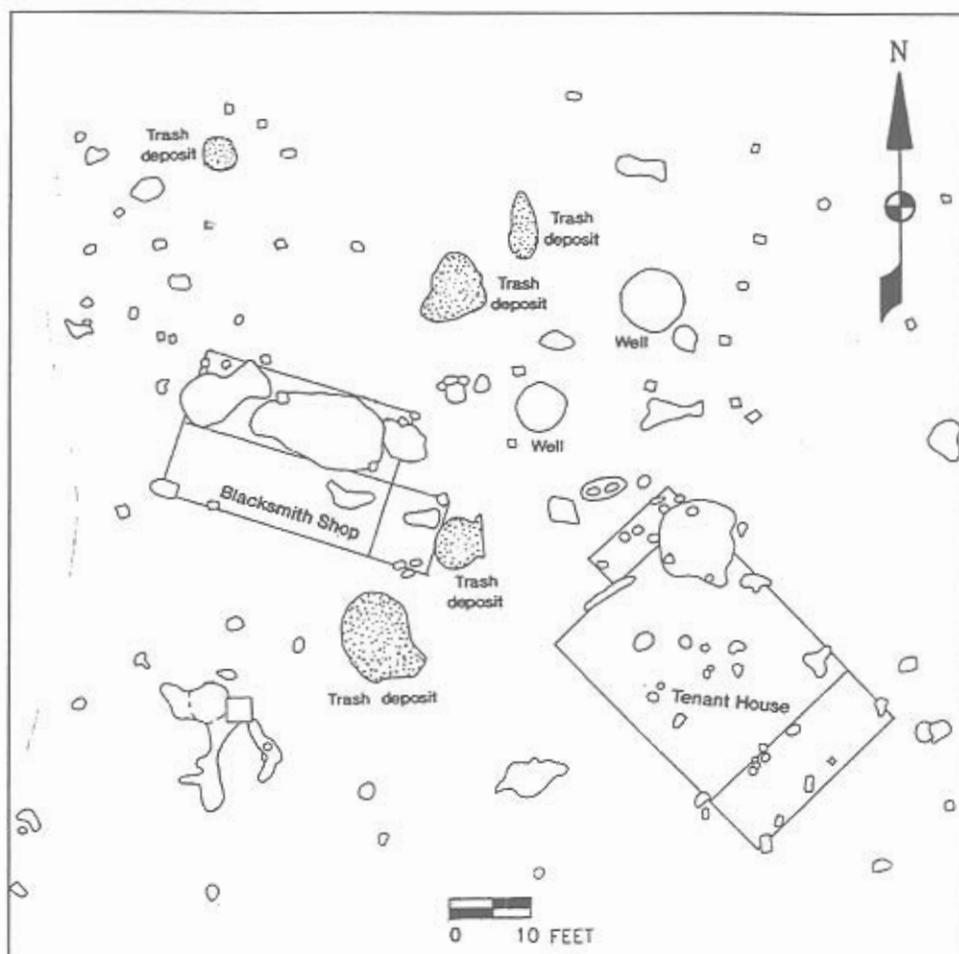


FIGURE 28: Plan of the Benjamin Wynn Site

chimney, and a confusing partial pattern of posts. The house may have been as large as 24 by 30 feet. The primary remains of the blacksmith shop were two cellar holes, the larger one 20 feet long, 8 feet wide, and up to 2½ feet deep, the smaller one 11 feet long, 8 feet wide, and just over one foot deep. The cellars were full of coal ash, with occasional pieces of iron slag and other blacksmithing debris. Posts around the cellars seemed to define a structure measuring about 16 by 24 feet. The cellars of the blacksmith shop were the only impressive structural remains on the site. The prominence of the blacksmith shop's remains, along with the absence of other outbuildings, suggests that blacksmithing was Wynn's main economic activity.

Samuel and Henrietta Mahoe lived in New Castle County, north of Odessa, between 1726 and 1760.

Samuel identified himself as a weaver in some documents, and as a yeoman in others. After Samuel died, in 1749, Henrietta, his widow, went to court to have her husband's apprentice bound to herself. She presumably carried on the family cloth business herself, since she remained single for five years. It seems unlikely that she could have managed both the weaving business and the farmlands without a spouse, so she probably leased out at least part of the Mahoes' 100-acre farm. The excavation of the Mahoes' farm did not produce any direct evidence of cloth manufacturing.

But there was a clear work area at the north end of the site, separate from the domestic work area around the house (Figure 29). This area included a post building measuring 14 feet 5 inches by 24 feet, a bathtub-shaped pit 8 feet long, 5 feet wide, and just over one foot deep, and a number of shallower pits. The bathtub-shaped pit and the shallower pits were filled with soil containing large amounts of ash, with a distinctly different artifact pattern from the rest of the site. Whereas the most common artifacts in most of the site were ceramic sherds, especially coarse redwares, the ashy pits contained few ceramics but quantities of tobacco pipe fragments and small bits of rusted iron. This separate activity area was almost certainly for cloth production, and it implies that cloth had great economic importance for the Mahoes.

Analysis of soil chemistry can also be useful in studying craft activity on colonial farms. The ashy pit fill in the cloth-manufacturing area of the Mahoe farm had a striking chemical composition, with a calcium concentration more than 37 times the site average and a phosphorus concentration more than seven times the site average. The calcium was probably in the form of lime (CaCO_3) from oyster shells, and the phosphorus could have come from almost any organic waste. Interestingly, potassium, which is concentrated in wood ash, was only about 1.5 times the site

average. This chemistry must have been caused by an industrial process, presumably something related to making cloth. By 1750 professional cloth manufacture was a complex process, involving the use of several chemicals. Lye (NaOH), lime (CaCO_3), potash (K_2CO_3), soap, coal tar, and urine were all used to process cloth (Bemiss 1815; Bronson and Bronson 1817). However, lime, ashes, and urine also had other uses, including preparing skins for tanning and making soap for home use. Similar chemical patterns, with high concentrations of calcium and phosphorus, were recorded in pit features at the Bloomsbury Site. Only intensive study of the chemical signatures produced by these processes would allow us to determine what activities produced the signatures in these pits.

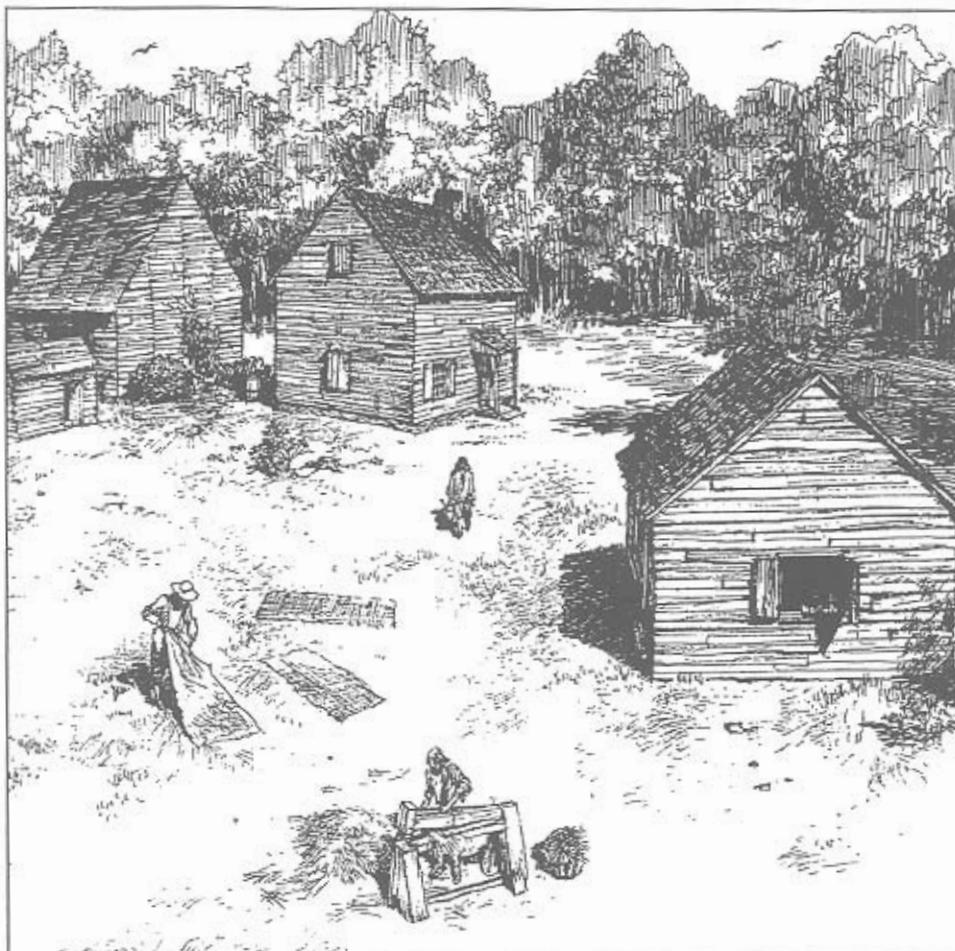


FIGURE 29: Breaking Flax and Bleaching Finished Cloth in the Sun at the Augustine Creek South Site

E. ARCHAEOLOGY AND MATERIAL LIFE

In simplest terms, what we found at the Dawson Family Site was one cellar hole, which was part of a house built in a rather interesting way, and a collection of artifacts. The site's main value lies in the artifact collection and what it can tell us about life in the eighteenth century. Through examining the potsherds, bones, nails, buttons, and fragments of other objects left behind by the Dawsons, we can come closer to understanding their world.

1. *Consuming Desires*

Historians have long debated how important acquiring fashionable consumer goods was for

American farmers in the eighteenth century (Carson 1994; Henretta 1978; Kulikoff 1989). It is an old question, and one that was much discussed by the people of the eighteenth century themselves. Especially at the time of the Revolution, many American spokesmen praised those virtuous, patriotic families who made what they could for themselves and avoided wasting precious American resources on imported frivolities. These patriots of virtue were opposed by some spokesmen for business, who extolled the advantages of commerce. Archaeology shows us that the Dawsons, at least, put a high priority on certain consumer items. They had fashionable dishes, fine buttons and buckles (and, presumably, fine clothes to wear them on), mirrors, new-style knives and forks, and stemmed glasses for drinking. They evidently did not look to any model of Puritan or Quaker simplicity to guide their lives, nor were they too involved in wresting a living from the wilderness to seek refinement. They imitated, in some ways, the fashionable elites of Europe. Like thousands of other ordinary people, they copied one of the aristocracy's most exotic innovations, the tea ceremony. They filled their house, as much as they could, with lovely but useless objects. They were consumers, and they desired imported goods more than they desired economic independence or domestic simplicity.

2. *Modernization*

The modern world is different from the medieval world. This obvious truth glosses over a whole list of the most important and hotly debated historical questions: How is the modern world different? How did it get this way? And when did it change? Archaeologists have their own approach to these questions. For many archaeologists and other students of material culture, crucial changes that make our lives different from those of previous generations took place in the eighteenth century (Carson 1994; Shackel 1993). One important change that comes directly within the scope of archaeology concerns the ways people use and understand space. Medieval people mostly worked in their own homes, whether they were farmers, craftsmen, or shopkeepers. The typical medieval house had only one or two rooms, and in those

rooms people slept, cooked, ate, and used their chamber pots. Even medieval royal palaces made little concession to the separation of work from domestic life, and the king's bedroom was often one of the main chambers of state.

One of the first visible changes in the loose spatial structure of the medieval world is the appearance of houses with clearly defined rooms. Great houses built in Europe in the 1600s, and in America in the 1700s, had separate dining rooms, kitchens, parlors, and bedrooms. The space around the house was restructured as well. Work, including barns and farm animals, was moved to the back of the house, and the front was made into an ornamental space for receiving visitors. A great house of 1770 was not the rambling, haphazard construction of 200 years previously, but a well-thought-out stage for social life. Different kinds of activities were confined to different spaces, so that guests coming to dinner did not have to jostle with field hands or dodge wayward chickens on their way to the table.

Time in the modern world is also much more rigidly divided than it was in the Middle Ages. Without clocks, medieval people had to structure their days differently, and they could hardly be as precise about their schedules as we can be today. Mechanical clocks were set up in many European cities in the 1300s, beginning the change to our modern kind of day, but clocks were not common in the countryside until the 1700s. With careful tracking of time came more careful management of work, and more attention to how long it took to do tasks in certain ways. Much eighteenth-century economic growth came about not so much by new technology as by more careful control of how groups of people worked together. The increasing discipline and control, therefore—control of time, control of space, and control of how people worked—were among the main causes of the industrial revolution and all that flowed from it (Le Goff 1984; Shackel 1993).

Other eighteenth-century changes can also be seen as increasing the amount of order and discipline in life. Dining around a formally set table is more carefully ordered than casual seating around the

fire, and a proper tea ceremony was a highly disciplined affair. Even farming could be judged on the extent of its order and discipline. Benjamin Rush, a Philadelphia intellectual and associate of Benjamin Franklin, wrote an essay in which he divided the farmers of the Delaware Valley into three "species" based in part on how neat their farms were and how carefully they managed their estates (Herman 1994). Add all these things together, and we seem to see a great wave of modernization sweeping over the eighteenth-century world, changing people's houses, yards, work habits, dining etiquette, and perhaps even their politics.

A look at the Dawson Family Site, and other sites like it in Delaware, makes us wonder how much truth these generalizations contain. The Dawsons adopted some of the new eighteenth-century habits, but not all of them. They did take up the tea ceremony. They adopted the new style of dining, but only for some of their meals; the heavily used porringers on the site show us that they sometimes ate around the fire with their meal in their hands, just as their ancestors had. They used some fashionable English ceramics, but they also set out on their tables many locally made, slip-decorated vessels of a kind that was disappearing in England and the Chesapeake region. They wore shoe buckles and new-style sleeve buttons, and in other ways acted like good consumers. Their house, however, was a small, temporary structure built with odd dimensions by some local craftsman completely untouched by the ideas of Renaissance architecture. They dumped trash in wide, shallow pits less than 50 feet from their door. They ate all the parts of the animals they raised themselves, and they cut their meat into large chunks for roasting or stewing, in thoroughly traditional style. "Modernization" as a single, unified concept does not seem to have meant anything to the Dawsons. They had their own ideas about what was important, and while these ideas had something in common with the thinking of progressive intellectuals, they also showed a strong tendency toward independence. Modernity was not a massive force sweeping people like the Dawsons along against their will. The changes of the eighteenth century gave the

Dawsons options, some of which they accepted and some of which they ignored. They were true to their own interests rather than to some abstract notion of social change.

F. THOMAS DAWSON AND HIS FARM

Archaeology is generally not a good way to get to know people as individuals. In the most general terms, the artifacts we find on one eighteenth-century farm site look like those from other eighteenth-century farm sites: potsherds, animal bones, fragments of glass bottles, handwrought nails, a few tools, and buttons. The differences we see between sites tend to represent large social and economic changes, like the development of regional cultures, the growth of world trade, the adoption of the tea ceremony, or the invention of creamware or the nail-making machine. Other differences may be simply the result of chance variations in the preservation of artifacts. Often we cannot even be sure whose artifacts we are finding, since we can rarely date a deposit to a particular year, and many deposits, like those at the Dawson Site, seem to contain refuse from many years mixed together. It is safer to talk about middling farmers in general than about one particular farm family, and safer to talk about households than individual men or women.

Nevertheless, after excavating his farm and analyzing a few hundred of his possessions, we feel that we have come to know Thomas Dawson quite well. His wife, Mary, and the rest of the household shared this life, and we can probably extend at least part of our understanding to the whole family. Thomas's probate inventory helps, as does the small sketch of the farm, but archaeology also reveals a great many things about the Dawsons. As far as we can tell, the artifacts in the cellar hole and in some of the pits came almost entirely from Thomas's lifetime, so we can use them to study him and his life. We imagine Thomas Dawson as a man from a well-to-do family who never met his relatives' standards for worldly success. His economic path was steadily downward, and when he died he was surrounded by worn-out things acquired years before. The Dawsons' house was a rough wooden

place with rotting wooden foundations and a single window, and if they had ever planned to replace it with a more permanent one, they never got around to it. Many of the things in his house at his death may have come from Thomas or Mary's family at the time of their marriage: their two finest ceramic pieces, the Elers brothers creamer and the Burslem teapot, were both 20 years old. The Dawsons owned a gun that had once been a fine English fowling piece but later had to be repaired with a clumsily made hammer. According to Thomas's inventory, all of their furniture was "old," and their old chairs, beds, tables, chest, and cupboard must have been badly worn to have been given such low values. Even their barrels and iron pots were old.

Although Thomas Dawson was not much of an economic success, he and his wife continued to keep up the social side of his upbringing. He was educated, and he took his part in family affairs, serving as administrator of his relative John Dawson's estate and witnessing other documents. The Dawsons received elegant callers, entertaining them with their special teawares. Their Burslem teapot and Elers creamer would have been as fine as any tea vessels in the county, and they no doubt enjoyed showing them off. They had punch bowls and rum on hand for less formal entertaining, and other elegant dishes like their painted delftware bowls. They had a matched set of knives and forks. Thomas Dawson enjoyed smoking pipes that bore his initials, even though

these initials were just a common pipemaker's mark, and he and Mary liked dressing well, with shiny buckles on their shoes and brightly colored paste stones on their buttons.

We cannot really say why the Dawsons were not more of an economic success, but we do have some grounds for speculation. The 1745 survey map shows that they experimented with malting, but since we have no other evidence it does not seem that they did very well at it, and they had certainly given it up by the time of Thomas's death in 1754. Although they owned more than 100 acres of land, Thomas's inventory, made in January, says that only 12 acres of it was planted in wheat, and the value of the other crops is not impressive. Certainly Thomas does not seem to have been a very energetic farmer. We can imagine him as a slightly lazy dreamer, full of schemes that never went anywhere—perhaps because he and Mary spent time drinking tea with their neighbors or rum with their friends when people more interested in money would have been hard at work at the plow or the loom. The Dawsons preferred, we think, to go to parties in their fine clothes, or just to stay home together, friendly and sociable to all, and let others struggle to get ahead. Through our work at their farm, troweling through layers of soil and carefully removing potsherds and pieces of metal, we have brought the Dawsons back to life in our imaginations, and with them a small piece of our history.