THE EXCAVATION OF JEFFE'S INHERITANCE: THE CHALKLEY SITE (18AN711)

Al Luckenbach, Esther Read, and Donna Ware

Abstract

Piece-plotted surface collections and preliminary test excavations conducted at the Chalkley site (18AN711) revealed the presence of a modest, 16.5 by 20-foot, 17th century tobacco planter's dwelling. Artifactual recoveries and documentary evidence combine to suggest that the site was originally known as "Jeffe's Inheritance," and that the located structure was probably built by Thomas Jeffe, Jr., and occupied by him and his family between 1677 and 1685.

The limited duration of this occupation provides an excellent opportunity to examine specific chronological information for a number of common 17th century artifact types, and allows historians and archeologists a rare glimpse at the durable material culture of a lower class planter of the period.

Introduction

The Chalkley site (18AN711) represents the remains of a small planter's earthfast dwelling built sometime around 1675. At that time it was known as "Jeffe's Inheritance," the name given to the small, 70-acre patent by its owner, Thomas Jeffe. It is located on the west bank of Church Creek, a tributary of the South River, in central Anne Arundel County, Maryland (see Figure 1). Its location provided ready access to the yearly tobacco fleet which gathered nearby (Middleton 1953).

The archeological site was first reported in 1989 by Penny Chalkley, Nancy Matthews, and her daughters Kathy and Jennifer, who first discovered artifacts dating to the 17th century while walking in a plowed field. Their finds included large-bore tobacco pipe stems, and diagnostic ceramic types such as North Devon gravel-tempered pottery, yellow and green glazed Border Ware, and Rhenish brown saltglazed stoneware.

Between 1990 and 1992, the site was investigated by the Anne Arundel County Archaeologist and a crew of volunteers from the County Office of Planning and Zoning, the Anne Arundel County Archaeological Society, the Maryland Historical Trust, and the general public. Sampling techniques included one random surface collection, four piece-plotted surface collections, and the hand excavation of twenty-four 5 x 5-foot test squares.

The goals of these archeological investigations were limited in nature, being directed towards the discovery of the type and size of the main dwelling constructed at the site, and its chronological placement. Since the site is not currently threatened by destruction, extensive excavation was not warranted, and investigation terminated once the primary goals had been accomplished.

The results of these limited excavations are of interest primarily because of the extremely short and well-documented time span involved in the occupation. The artifactual materials found can serve as a temporal benchmark for other 17th century archeological investigations in the region. They have further utility as a perspective on the material culture and lifestyle of a "low to middling" class of tobacco planter during this period, an economic status which has received relatively little archeological attention in the past.

Documentary Evidence

In 1669 Thomas Jeffe, Sr. purchased from Thomas Roper a parcel of 70 acres which had been part of a 300-acre tract called "Roper's Neck." Jeffe named this 70-acre parcel "Jeffe's Inheritance." Since Thomas

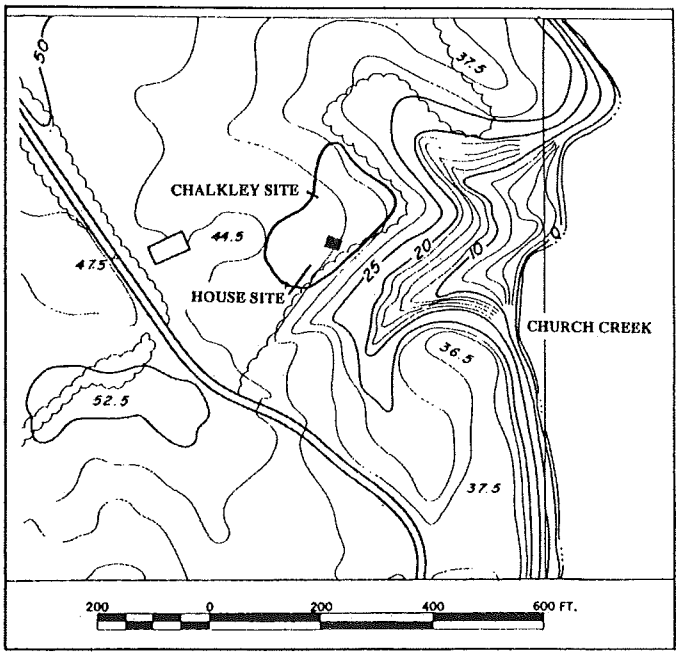


FIGURE 1. Topographic setting of the Chalkley site.

Jeffe, Sr. already owned the neighboring 100 acres (the moiety of a tract called "Chance"), which he had acquired in 1666, it is difficult to know whether Thomas Sr. actually occupied his new land and built the dwelling found at the Chalkley site, or whether he was simply expanding the amount of arable land for his plantation based at "Chance."

Aside from these land transactions, there is little information on the Jeffes contained in the historical record. Thomas Jeffe, Sr. died intestate in 1675. In 1677 his oldest son, Thomas Jeffe, Jr., appeared before the court in St. Mary's City. Young Jeffe presented a petition at that time asking for the right to administer the estate of this father. In the petition, Thomas Jr. described what had happened to the family since his father's death. At his death Thomas Sr. had left behind a widow and three children, Thomas Jr. (age 19), William (age 6), and Ann (age 10). Thomas Jeffe's widow had apparently died in the intervening period. Subsequently, the minor children had been bound out by the court, which had also taken over the administration of the estate, removing a servant named Rosaman Harrison and the goods from the plantation. In March of 1678 Thomas Jr. returned to the court with a bond of 20,140 pounds of tobacco, and when he returned again in 1679 he gave a final accounting of his late father's estate. The final account gives the total value of the estate as 10,052 pounds of tobacco (about £43 in currency).

The disparity in the ages of Thomas Jeffe, Sr.'s children might imply that two different wives were involved. The fact that he obtained a female indentured servant (see Figure 2) may also imply that there was a period before his second marriage that he required assistance with child-rearing and other homelot tasks.

In January of 1685, Thomas Jeffe, Jr. and his wife Mary sold both "Jeffe's Inheritance" (70 acres) and "Chance" (100 acres) to Thomas Lytefoot, Gentleman, of Anne Arundel County (see Figure 3). Lytefoot held the land for only four months when he and his wife Rebekah conveyed the property to Thomas Stinchcomb of Baltimore County. These transactions are interpreted as clear examples of speculative land dealings, and neither Lytefoot nor Stinchcomb are believed to have physically occupied the property during their brief tenures.

Dating

In an attempt to assign a specific chronological period to the excavated occupation, a comparison of the documentary evidence available for this homelot is made with our current understanding of the temporal significance of the artifactual data. This procedure allows three scenarios for the possible occupation dates of the Chalkley site:

1. The site was occupied by both Thomas Jeffe, Sr. and Thomas Jr. between 1669 and 1685, a total of sixteen years.

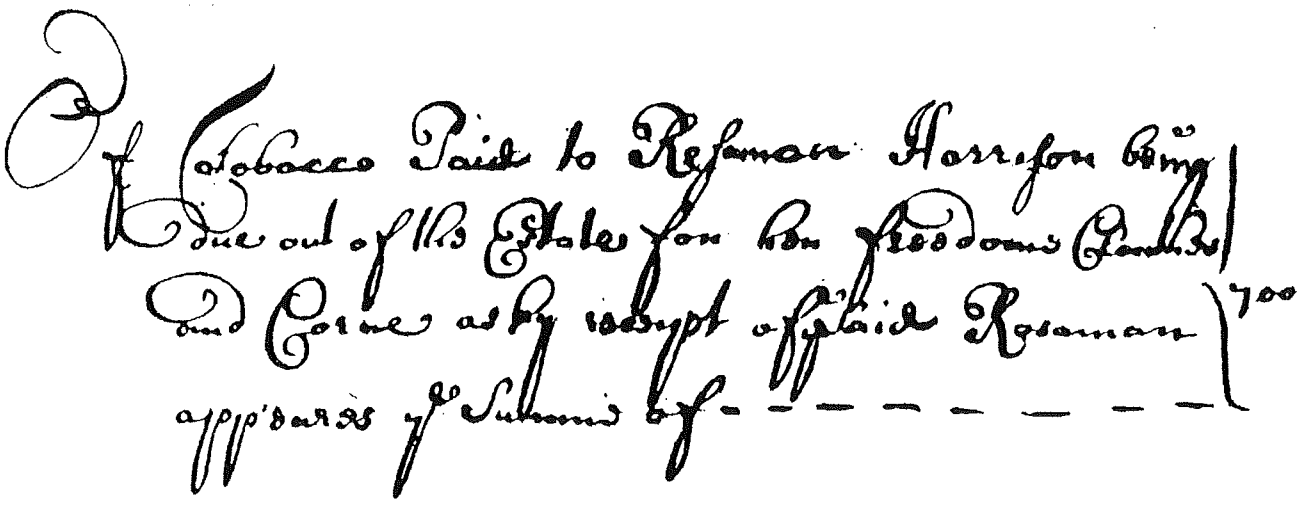


FIGURE 2. The debts of the deceased Thomas Jeffe, Sr. as recorded by the court clerk in 1679 included this entry: *"Of Tobacco Paid to Rosaman Harrison being due out of this Estate for her freedoms Clothes and Corne as by receipt of said Rosaman appears ye Summe of -------- 700"* [pounds of tobacco]. This is the only indication of indentured servants working for either of the Jeffes. The hiring of a female servant is often indicative of the death of a wife, and the need for assistance in child-rearing and other homelot tasks.

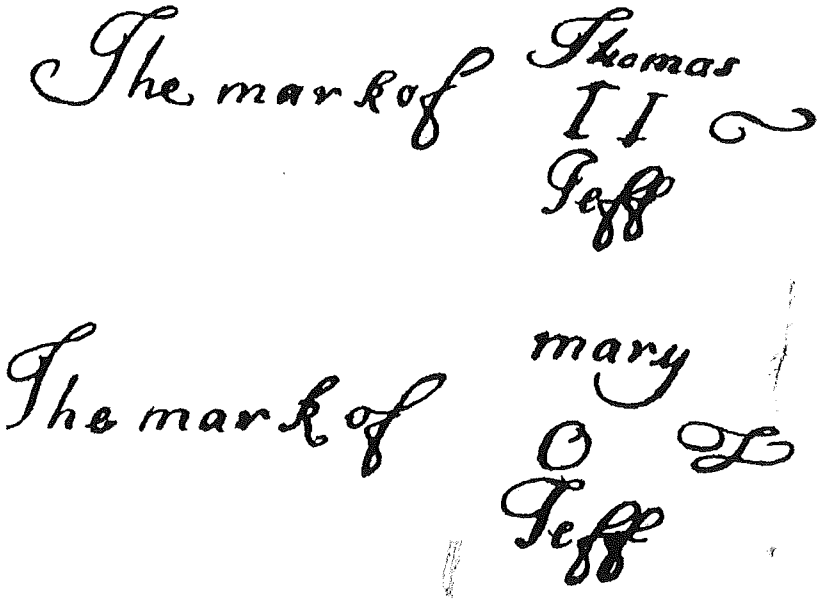


FIGURE 3. The marks of Thomas Jeffe, Jr. and Mary Jeffe as recorded by the Anne Arundel County clerk in 1685, upon the sale of Jeffe's Inheritance. The inability to sign one's name is usually taken as an indicator of illiteracy, an educational status not uncommon among the average planters of the period.

2. The site was occupied by Thomas Jeffe, Sr. between the time he purchased the property in 1669 and his death in 1675, a total of six years.
3. The site was occupied by Thomas Jeffe, Jr. between 1677, when he reestablished control of his father's estate, and 1685, when it was sold, a total of eight years.

It appears quite probable that the Jeffe holdings were unoccupied between Thomas Sr.'s death in 1675 and 1677, or perhaps even as late as 1679 when the estate was finally settled. We do know that by 1677 the courts had removed the two minor children, the indentured servant, and the goods and chattel. It is not unlikely, therefore, that an earthfast structure, built in 1666 by Thomas Jeffe, Sr. on the parcel "Chance" and abandoned for a number of years over a decade later, could have developed structural problems sufficient to require its abandonment. When coupled with the notable paucity of artifacts recovered from Chalkley (in comparison with other sites) and the recovery of three ceramic vessels of types traditionally assigned to the period after 1680, the third scenario is considered to be the most likely. If true, this would imply that the structure excavated at the Chalkley site was built by Thomas Jeffe, Jr., and had been occupied for only six (1679-1685) to eight years (1677-1685) prior to abandonment.

Excavation Strategy

The Chalkley site is currently situated in an agricultural field which is alternately planted in corn and soybeans. Archeological investigations began soon after the locality was first discovered in 1989. Initial efforts were confined to a random surface collection to delineate the site's extent. This was followed by four piece-plotted surface collections, conducted as field conditions permitted in the spring and fall. In these latter efforts the find locations of each individual artifact were plotted on a site map. The results of these studies were used to direct the placement of formal excavation units and for artifact distributional analyses.

Based on the surface collection results, excavations were begun for the purpose of discovering primary architectural information. Eventually a total of 24 standard 5 x 5-foot test squares were opened in the vicinity of the main artifact concentration.

In each excavation unit, a light brown plowzone approximately 8-10 inches in depth was encountered over yellowish natural clay. This interface was carefully cleaned in search of soil changes which demarcate human impacts beneath the clay layer. As will be described, these limited excavation activities proved sufficient to delineate the general outline of the main structure at the site (see Figure 4), at which point the investigation was terminated.

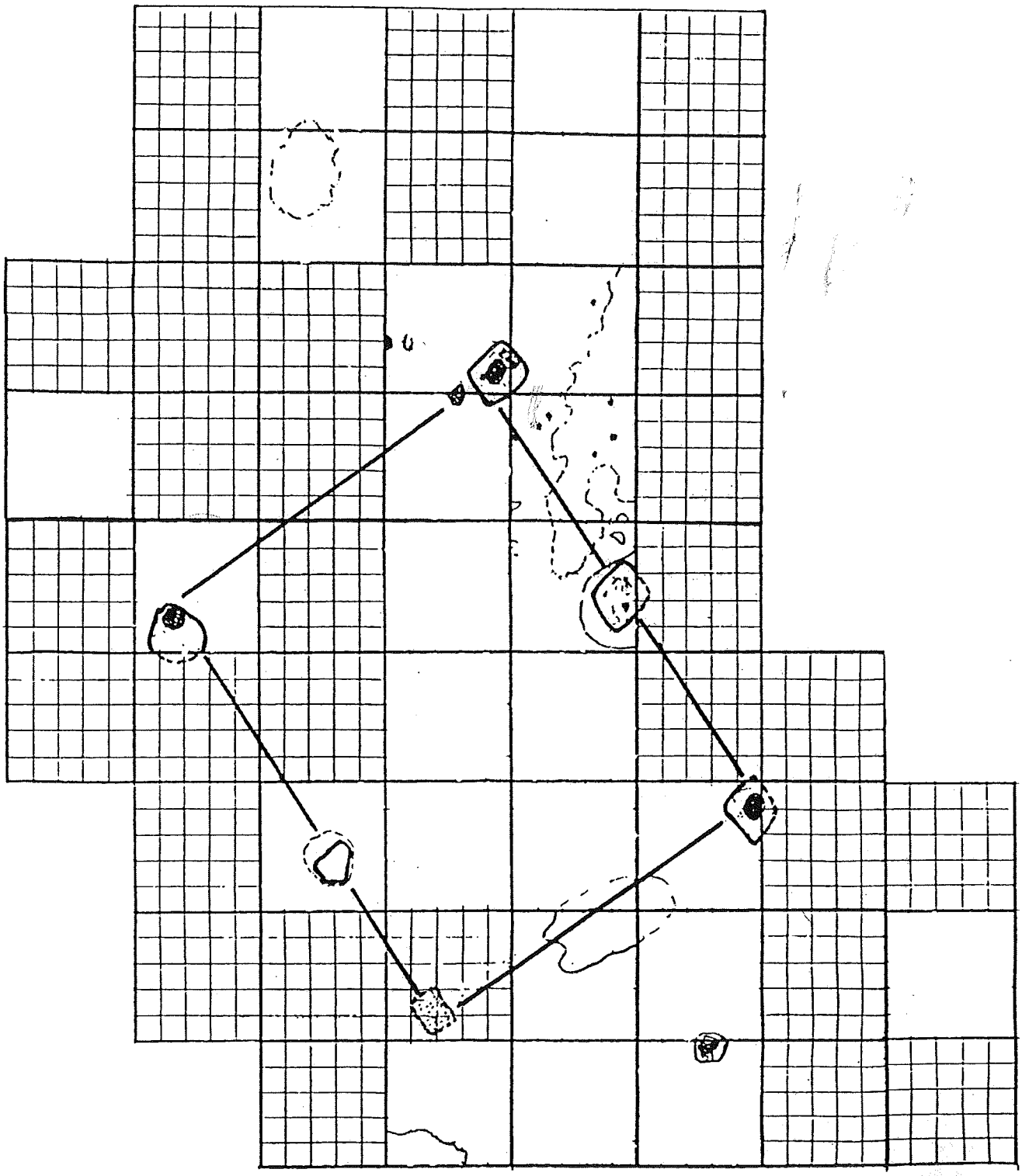


FIGURE 4. Structural features at Jeffe's Inheritance showing outline of the main house.

Architectural Evidence

Relying largely on archeological discoveries, architectural historians have become increasingly aware over the last two decades that the first generation of structures built in the Chesapeake region by European colonists has disappeared from the landscape almost without a trace. The reason for this can be readily attributed to the use of a construction technique which has been called "impermanent," "earthfast," or "post-in-the-ground" construction (see Carson et al. 1981). Structural support for these buildings was usually provided by large posts set in holes dug into the subsoil. Obviously, rot and insect damage took a heavy toll on such buildings and, unless constantly repaired, they had a tendency to quickly become untenable, often within twenty to forty years.

Lacking durable foundations or structural piers, the physical remains of such buildings, when discovered through archeological excavation, are generally no more than subtle stains in the ground. These stains represent evidence of the holes which were originally dug to support the structural posts, and sometimes the dark outlines of the original post locations as well. Occasionally, cellars, storage pits, or chimney bases are also uncovered during excavation. Together, these often ephemeral pieces of evidence are called "features" and represent a primary analytical tool for archeological investigations of 17th century sites. As discussed, the discovery of such architectural features, and the information they can impart concerning building construction, were the principle goals of the excavation strategy utilized at the Chalkley site.

As shown in Figure 4, a total of five such structural post hole features were discovered during excavations at the Chalkley site. Their average dimensions were about two feet square, with post stains about 10-12 inches in diameter occasionally discernable as dark molds inside the holes. As a group these features outline a building which would have been 16.5 feet by 20 feet. Each 20-foot side wall was probably raised as a three part unit with 10-foot bays between the three posts. The 16.5-foot interval between the walls equates to an English "perch" and is a standard building dimension for this period.

Given that the Chalkley site is not immediately threatened by destruction, only one of the five structural post features was excavated. It proved to extend about two feet below the current ground surface, and may have once been approximately 2.5 to 3 feet in depth. No artifacts or destruction debris were encountered inside the post hole, nor was any such material visible during the surface cleaning of the other four. This clearly indicates that when the structure was erected, the site was free of artifactual materials, and that no previous European occupation had occurred at this location. In addition, these post holes and molds displayed no evidence of repairs (replaced posts, etc.) such as are frequently encountered with such features at other sites occupied for a longer period of time.

Although evidence for hole-set studs might have eroded away, the more likely interpretation is that the building's studs were joined to interrupted sills. This would imply that the flooring at Jeffe's Inheritance was wooden planks rather than simply dirt. If true, this is an intriguing conclusion since dirt floors were a relatively common feature well into the 18th century and beyond. No indications of interior partitions were found, nor were they expected, as a single-room plan would be most likely with a structure of this size.

Unlike most excavated sites dating from this period, no large cellars were detected beneath the house. Some indication of a small storage pit was noted, but this feature was left unexcavated. The only other possible architectural feature was an enigmatic stain encountered at the east gable end. Although not thoroughly excavated, this feature is interpreted as having some relationship to a chimney at this end of the structure. This conclusion was partially based on the distribution of brick fragments which were larger and more numerous at this gable end.

The only measurable brick recovered at the Chalkley site was a crude, red, broken piece which obviously was intended to have been of "English Standard" size (3.25 x 2.25 x ? inches). It is highly likely that the Chalkley bricks were manufactured locally since the abundant naturally occurring clays in the area are well suited for this purpose. In general, brick fragments were encountered in such low numbers as to clearly indicate that their use was confined to the construction of a masonry firebox. As is most common during this period, the remainder of the chimney undoubtedly would have been made of wattle and daub or some other variant of wood and clay construction.

A number of greenish, flat pieces of glass were recovered at the Chalkley site which might be taken as evidence that at least one glazed window was utilized on the building. It is also possible, however, that these are simply fragments of flat-sided case bottles which were definitely represented in the artifactual assemblage. No lead window cames were recovered which would have proven the existence of a glazed window. Given the large amounts of discarded lead fragments

which were recovered, there is not much to indicate that any lead cames which might have once existed would have been thoroughly salvaged. We can assume that some sort window or windows existed to provide interior light, but these may have simply been shuttered, provided with wooden bars, or covered with oiled cloth.

As will be discussed in a later section on distributional analyses, there is very limited evidence for possible doorways based on concentrations of flint, pipe fragments, and ceramics. Conventional interpretation of this evidence would suggest possible doorway locations on the east gable end, and somewhere near the northwest corner of the structure. Unfortunately, these locations do not conform to the expected doorway placement, i.e., in the middle of the structure's long axis.

Although iron preservation at the site was extremely poor (resulting in "lumps" of nearly totally oxidized iron), large numbers of nails were recovered in and around the area of the structure. It is estimated that a minimum nail count of approximately 25 per 5 x 5-foot excavation unit was recovered. This frequency corresponds well to that seen at the Compton site in Calvert County (Outlaw 1985), and at the Burle site in Anne Arundel County. The abundance of nails is taken to indicate that the structures at these sites were covered with nailed riven siding, and probably had wooden shingle roofs as well.

The 16 x 20-foot earthfast house of Thomas Jeffe, Jr., with a single heated room and a loft above, was probably the most common type of dwelling dotting the late 17th century landscape of Maryland. In fact, as late as the 1798 Federal direct tax, a 16 x 24-foot version that would have been virtually indistinguishable remained the average planter's most likely dwelling. For those on the lower half of the social and economic scale, almost no change in the basic available shelter would have been readily apparent.

Despite their relative abundance, it is surprising that the archeological remains of these average structures have been the subject of relatively little investigation from 17th century researchers. The difficulty involved in locating such ephemeral remains is one obvious explanatory factor, as is the paucity of artifacts accompanying such small sites. In addition, historical archeologists have previously seemed preoccupied with the homes of the upper class, whose occupants tend to have left a more significant documentary and artifactual trail.

Artifacts

Artifacts represent the fragmentary clues from which archeologists must attempt to reconstruct the material surroundings and lifeways of the past. Unfortunately, it is in the nature of the science that they are required to work with only a small sample of what once must have existed. The vicissitudes of breakage, disposal, preservation, and discovery combine to insure that only fragments of the original totality remain.

Most 17th century homelots are discovered in modern agricultural fields or in areas which were plowed at some time in the past. As a consequence, the areal extent of these sites, as defined within the plowzone, is frequently marked by large numbers of small artifacts. Pieces of pottery, sections of broken tobacco pipes, nails, glass, and brick fragments are usually present in great profusion.

Each of these artifacts provides a different piece of data with which to reconstruct the past. In general, however, archeological analyses tend to rely most heavily on those artifacts whose changing styles provide temporal sensitivity. Nails, for example, undergo no notable technological changes until very late in the 18th century. As a consequence, their utility to 17th century archeology lies in the clues they might provide for reconstructing architectural features, but not in their ability to date them. The same is true, in large part, for other objects such as bricks, window glass, lead shot, or gunflints.

Aside from the rare coin or dated window lead, tobacco pipe fragments and pottery sherds are the objects most often utilized for dating 17th century archeological sites. As a consequence, the information derived from these objects at the Chalkley site will now be discussed in some detail, followed by shorter descriptions of the other artifact classes in the assemblage.

Ceramics

Ceramics have long represented the mainstay of archeological material culture analysis conducted for historic period remains. This is due to a number of factors. First, and most obvious, is the fact that they are easily broken and difficult to repair. As a consequence they are usually present in significant numbers in site assemblages. Ceramics are also a highly plastic medium, subject to great variability, and thus tend to have great temporal sensitivity. Finally, the information these objects can impart relating to the lifestyle

and social status of the individuals who acquired and used them make them the primary emphasis of many archeological studies.

A total of 528 ceramic sherds were recovered during the investigations at Jeffe's Inheritance (see Tables 1 and 2). These fragments can be shown to represent the remains of at least 32 separate vessels. The diversity of their origins (including English, Dutch, Iberian, German, and local manufacturing sources) stands as a testament to the interconnectedness of the world economy during this period, as well as the Chesapeake colonies' continued reliance on imported manufactured goods.

A number of investigative techniques are commonly applied in ceramic studies. Many analyses of 17th century ceramic components have used the comparison of what are called "refined" high value ceramics (such as Rhenish stoneware, delftware, or porcelain) to "coarse," utilitarian wares as an indicator of social status of the individuals who discarded them. In comparison with other sites excavated in the Chesapeake, Jeffe's Inheritance (with only 27% refined) ranks extremely low on this social scale (see Table 3). This finding highlights the relatively "threadbare" existence which is hypothesized for the Jeffes on their small land holding.

Another common analytical technique involves the study of minimum vessel counts. Results from the Chalkley site are again unusual in this regard due to the very low minimum number of vessels represented in the recovered assemblage (32). Two factors are probably involved in this relatively meager number. One is obviously the short occupation span involved at the site, and the other the economic status of the occupants. Assuming that the Chalkley site was occupied for eight years we can calculate a breakage rate of about four vessels per year. Unfortunately, the few contemporaneous sites for which minimum vessel counts are available do not have chronological information of sufficient specificity to allow good comparisons.

TABLE 1. Artifact totals.

Flint	48
Pipe Fragments	191
Bottle Glass	151
Flat Glass	122
Ceramics	528
Lead	24
Pewter	4
Brass	8
Nail Fragments	976
Brick Fragments	194
Total	**2246**

TABLE 2. Ceramics.

	SHERDS	VESSELS	%
Refined Ceramics			
Rhenish Brown Stoneware	10	3	1.9
Staffordshire Wares			
combed slipware	10	1	1.9
manganese mottled	6	1	1.1
Tin-glazed Earthenware	28	3	5.3
North Devon Sgraffito	89	1	16.9
Refined Total	143	9	27.1
Coarse Ceramics			
North Devon gravel-tempered	102	3	19.3
Other Redwares			
black-glazed	7	1	1.3
red-sandy earthenware	40	5	7.5
chalky-pasted	7	1	2.3
other	108	6	20.5
Iberian	33	2	6.1
Border Ware	7	4	15.1
Other Buff-bodied Ware	4	1	0.8
Coarse Total	385	23	72.9
SITE TOTAL	**528**	**32**	**100**

TABLE 3. Refined ceramics on various 17th century sites in Maryland (*from Miller 1983; Pogue 1988*).

King's Reach	54%
Van Sweringen's	53%
Country's House	52%
Smith's Ordinary	36%
Cordea's Hope	32%
Jeffe's Inheritance	27%

Refined Ceramics

Rhenish Brown Stoneware. A total of ten sherds were recovered which represent three different vessels of brown saltglazed stoneware. All had grey bodies under a brown glaze, and are presumably Rhenish in origin, most likely from the Cologne-Frechen region (see Noël Hume 1958). The single recognizable vessel form is represented by the base of a jug, quite possibly from a bellarmine-type vessel (Figure 5l).

Staffordshire Wares. Sixteen small, buff-bodied sherds are of types usually attributed to Staffordshire, England. These include ten sherds with a yellow-brown, combed slip, and six with a brown, manganese-mottled glaze. Each group of sherds probably originates from a single drinking cup or mug. The presence of these two vessels in the assemblage from Jeffe's Inheritance is significant since both are generally assigned a start-date of circa 1680 in the Chesapeake region (Miller 1983:88), and thus would date the site at least to the tenure of Thomas Jeffe, Jr.

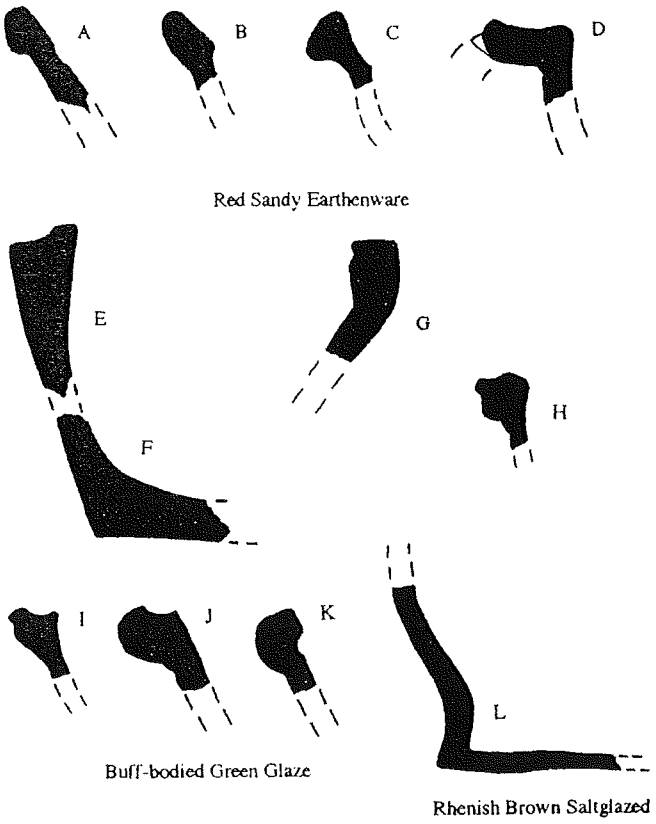


FIGURE 5. Ceramic rim and base profiles.

Tin-glazed Earthenware. Twenty-eight small, buff-bodied sherds were recovered which displayed white tin glaze on both their interior and exterior surfaces. These are traditionally called "delftwares" and most likely originate in England or Holland.

A minimum of three different vessels can be distinguished on the basis of different decorative treatments. On one vessel the glaze was a distinct "robin's egg" blue, on the second, purple manganese speckles were present on a white base, while the third displayed a more common blue on white pattern. As was the case with the Staffordshire wares, these tin-glazed examples were only recovered in very small fragments.

North Devon Sgraffito. The most common refined ceramic present at the Chalkley site was a sgraffito-decorated earthenware, imported mainly from Barnstable and Biddleford in the North Devon region of England (see Watkins 1960; Grant 1983). This is a red/grey bodied earthenware, covered with a white slip and yellow glaze which is then incised with decorations which appear after firing as brown lines. It is represented in the collection by 89 sherds which, although they represent 62% of the refined ceramic sherds, probably only originate from one or possibly two vessels.

Figure 6 shows two sherds of this ware, one a flat, basal sherd (Figure 6g), and one exhibiting a rolled rim (Figure 6f). These probably represent fragments of a small bowl with a diameter at the rim of about six inches. The geometric decoration is of a style very popular in the third quarter of the 17th century (Grant 1983:Plate 26).

North Devon Gravel-tempered Ware. In addition to the sgraffito-decorated earthenware just discussed, the area around Devon, England also produced and exported a common utilitarian earthenware tempered with small bits of gravel. This type of ceramic was represented in the Chalkley site assemblage by 102 sherds originating from at least three vessels. As was the case with the refined wares, ceramics originating from the North Devon region represented the largest component of the coarse ceramics in the collection, comprising nearly 20% of the latter category. Together, these ceramics from southwestern England represented well over one third (36.2%) of all pottery sherds recovered at the site.

Some idea of the vessel shapes of North Devon gravel-tempered ware can be reconstructed from the rim and base profiles shown in Figure 6. The vessel in Figure 6a/b appears to be a typical North Devon, flat-bottomed milk pan of about 14 inches in diameter. The height shown in the figure is conjectural. A variant

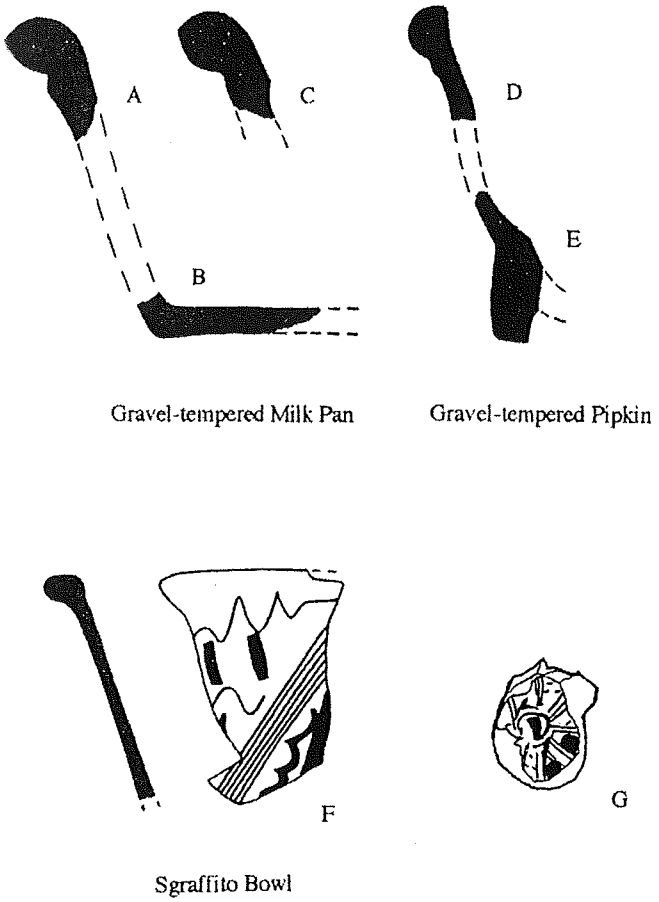


FIGURE 6. North Devon ceramics: profiles and patterns.

rim form is shown as Figure 6c. Finally, a third form found at the Chalkley site appears to represent a pipkin (Figure 6d/e).

Coarse Ceramics

Other Redwares. Besides North Devon gravel-tempered ware, the only other readily recognizable redwares from the Chalkley site included black-glazed redware, represented by seven sherds from a single drinking mug; red sandy earthenware, represented by 40 sherds from five or six vessels (including at least one butter pot); and twelve sherds of chalky-pasted earthenware from a single vessel of indeterminate form. A description of these types based on findings at St. Mary's City is available in Miller (1983:92-93).

Due to their lack of diagnostic types, a wide variety of miscellaneous redwares have been grouped together. This grouping encompasses 108 sherds representing at least six vessels. The predominant variety is a dark, overfired ware with a greenish-black glaze, and a body similar in consistency to red-sandy earthenware. This variety is represented by a minimum of three vessels.

Iberian Ware. Thirty-three sherds from the Chalkley assemblage were sandy, grey-bodied, unglazed examples of a utilitarian earthenware usually attributed to the Iberian Peninsula (see Goggin 1960). They generally were first utilized for olive oil or wine, but were often used for other purposes as well. At least two vessels are present in the collection.

Border Ware. Seventy-nine sherds in the collection exhibited an off-white, distinctly sandy body with a poorly adhering green or yellow glaze (see Figure 5i-k). In Maryland these sherds are normally classified as Surry or Surry-like wares, and are descendants of the green-glazed wares of the Tudor period in England (see Pearce 1992).

This type of pottery has been recovered at a number of sites in St. Mary's and Calvert counties in Maryland, but is a rare component on Anne Arundel County sites. For example, none have been recovered at the Burle site (ca. 1650-1680) or South River Landing (ca. 1670-1690), and only a single sherd was recovered from the site of "Scornton" (ca. 1670-1730). The presence of at least four vessels of Border Ware at the Chalkley site is, therefore, quite notable.

Other Buff-bodied Ware. Four other sherds exhibited a hard, well-fired buff body with a distinctive olive-green glaze. They are from a single vessel of an unknown type. Although potentially classifiable as Border Ware, they are distinctly different from those described above. The rim profile for this vessel is shown in Figure 5h.

Tobacco Pipes

Makers Marks

Clay tobacco pipes are one of the most useful dating tools available to historical archeologists concerned with the investigation sites occupied during the 17th century. Like ceramics, pipes were easily broken objects, subject to great stylistic variation and temporal sensitivity, and are recovered from 17th century sites in great numbers. Perhaps the most explicit part of their diagnostic utility, however, is the fact that some were marked with their maker's names or initials.

Only four such marked pipes were recovered in the total collection from the Chalkley site, and one of those was not actually a maker's mark, but rather a simple decoration. Figure 7g illustrates a stem section

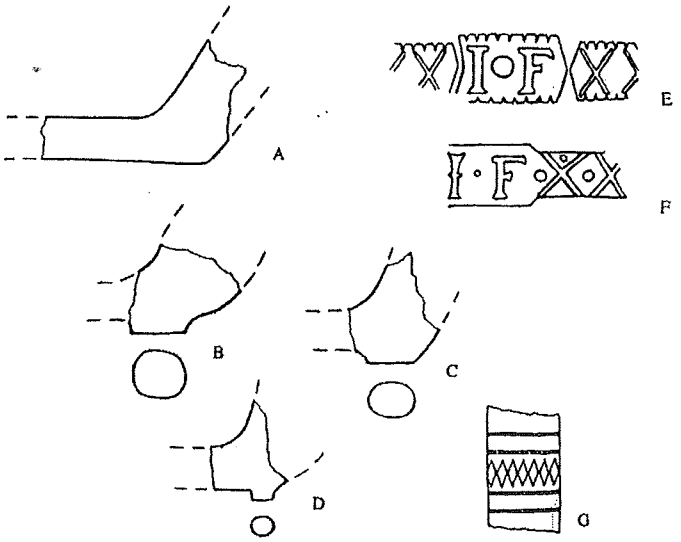


FIGURE 7. Tobacco pipe bowl forms and marks.

decorated in what is commonly described as the "Bristol Style." A small chain of diamonds is flanked above and below by two lines of dentate milling or rouletting. This style of decoration is commonly associated with manufacturers from Bristol, England, such as Will Evans and Llewellen Evans, who were active in the second half of the 17th century (Walker 1977:1428-95). Similar recoveries have been made at numerous sites throughout the New World. Examples include Pentagoet, Maine (Faulkner and Faulkner 1987), St. Mary's City, Maryland (Hurry and Keeler 1991:63-65), and numerous sites in Virginia.

The other three marked pipes recovered from the Chalkley site all displayed the initials IF (JF), in two variant forms (see Figure 7). These pipes have been attributed by Walker (1971:26) to the pipemaker James Fox of Bristol, England who was active in the period 1651-1669. Pipe fragments with identical marks have been recovered at the St. Johns site in St. Mary's City (Hurry and Keeler 1991) and at the site of Middle Plantation in Anne Arundel County (Doepkens 1991).

It is worth noting at this point that there are two obvious and inherent problems with the way that archeologists have traditionally applied pipemaker's marks as chronological signposts. The first is the assumption that a given maker's products were being imported into the New World over the entire productive life of the particular individual. As more sites with specific occupation dates are carefully excavated and analyzed, it may eventually prove possible to severely restrict the 30-40 year dates which are often assigned to specific marks. For example, based on data from other Anne Arundel County sites, the authors feel that the explosion of import-style pipes marked LE and WE may eventually prove to be a phenomenon which occurred during a more restricted time-span sometime in the 1670s or 1680s.

The predominance of trade pipes with IF marks attributed to 1651-1669 does not provide a good fit with the hypothesized best date for the Chalkley site of 1677-1685. One possible solution is that James Fox was active for much longer than usually believed. Walker (1971:1140) notes that Fox may have been alive as late as 1696, and that IF pipes exist that typologically should date to the 1680s or 1690s. However, since there are no less than 24 English pipemakers with these initials listed in Oswald's (1960) work (and doubtless others existed), another solution would be that the mark has been incorrectly attributed. For example, it would be possible that one Jacob Fox is responsible for the IF marks, as he entered the freedom rolls in Bristol in 1668.

Bowl Forms

Another aspect of clay tobacco pipes which has proven to be chronologically sensitive is the shape of the bowl. Of the half-dozen or so 17th century sites in Anne Arundel County which have received scientific investigation, the excavations at South River Landing (Rule and Evans 1982) produced the most similar pipe assemblage to the Chalkley site in terms of bowl forms. Both of these sites contained a single example of a belly bowl with a large circular base, and a single example of a pipe with a small spurred base, and both contained seven examples of a bowl with straighter sides and a smaller, oval base. What is perhaps most significant, however, is the predominance of trade pipe bowls in both assemblages. The Chalkley site produced six which constituted 40% of the total, while South River Landing produced eleven for a 52% representation.

These figures argue for a rough temporal contemporaneity for the two sites despite very different results obtained from maker's marks. Despite both having Bristol diamond decorations, South River Landing produced LE, WE, and RN marked pipes, traditionally attributed to Lewellen Evans (1660- 1688), Will Evans (1660-1698), and Richard Nooney (1655-1699). These can be used to assign a date to the site of between 1660 and 1688, although the authors (optimistically) concluded that their other evidence indicated a date of 1660-1665.

As stated, the three IF pipes from the Chalkley site are usually attributed to James Fox (1651- 1669), yet the best documentary evidence would place the site at either 1669-1685 or (more likely) 1677-1685.

Stem Bore Diameters

Perhaps one of the most unusual techniques for dating clay tobacco pipes originates from the observation that there was a general trend towards decreasing the stem bore size through time. This fact was first developed into a usable dating technique by Harrington (1954) and Binford (1961), and has been the subject of much debate and controversy ever since. It should be noted that a number of caveats have been attached to its application such as the requirement for a large sample size, a reliance on products from Bristol, England, and a diminished accuracy before 1680 or after 1760 (Noël Hume 1969:300).

The results of the bore size analysis for the Chalkley site would indicate a date of 1672 for the collection, which is not unreasonable given the margin of error involved with the relatively small sample available.

Other Artifacts

Brass

Eight brass objects were recovered from the Chalkley site. Two were tacks used on furniture or for decorative purposes on chests, etc.; three were buttons of a single distinctive type (see Figure 8); and one was a decorated knee buckle (Figure 9). The remaining two pieces were simply brass scraps whose original purpose is unknown.

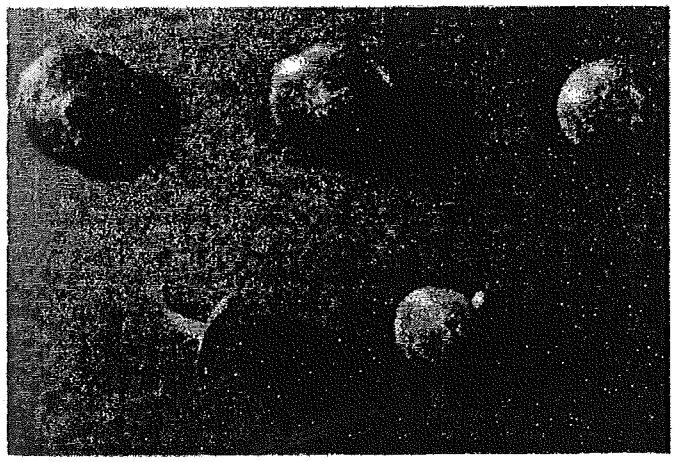


FIGURE 8. Brass buttons and tacks.

Pewter

Four pieces of pewter were discovered. These include a bottle stopper, two pieces of what appears to be a porringer handle, and one unknown fragment.

Lead

Twenty-four pieces of lead were recovered, the vast majority of which were lead "drops" which were most likely generated as the waste products from casting shot. Four lead shot were recovered, ranging in size from 0.3" to 0.7" (see Figure 10). The only other recognizable lead object was quite remarkable. It was a deliberately made cast of a peach pit, having no obvious function, and providing the only evidence of floral remains from the site (Figure 11).

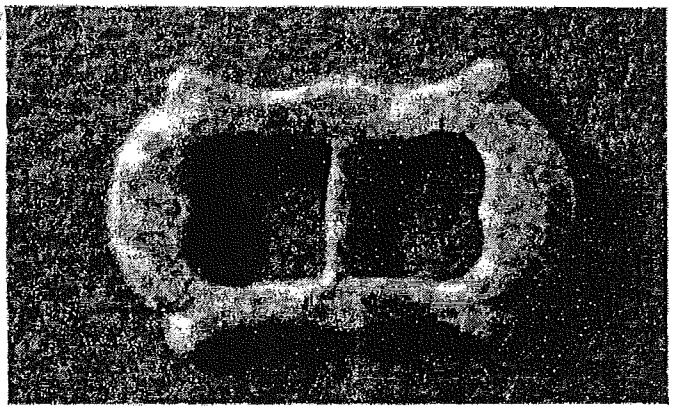


FIGURE 9. Brass knee buckle.

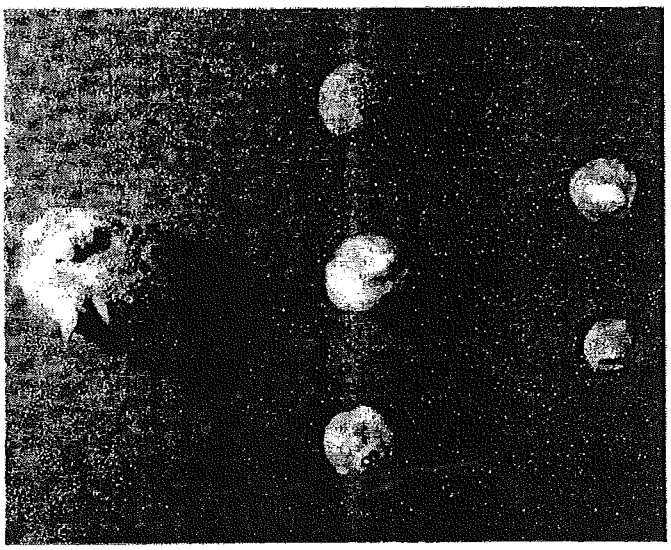


FIGURE 10. Lead shot.

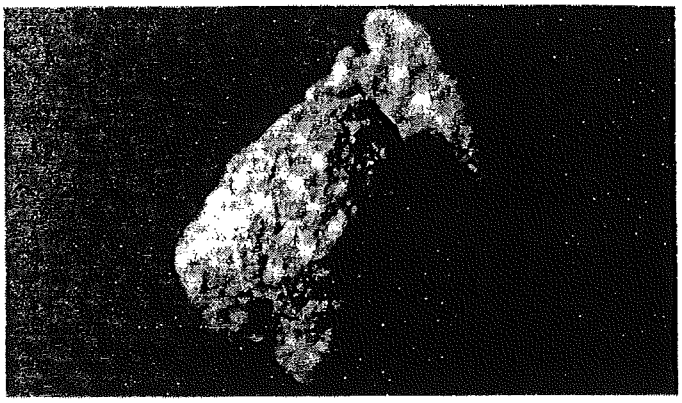


FIGURE 11. Lead cast of peach pit (with large sprue attached).

English Flint

Forty-eight pieces of English flint were found at the site, six in the surface collections and forty-two in the test units. The vast majority of these were flakes and cores which represented the waste products from the manufacture of gunflints and strike-a-lights. Only a few recognizable fragments of gunflints were found, and all had been made in a notably crude fashion.

Glass

A total of 274 glass fragments were recovered during the Chalkley investigation. Most represented the remains of green onion-shaped bottles, of which at least a dozen were represented. A single onion-shaped bottle was discovered which had been made of blue glass. Cranmer (1990:90) in his report on Cushnoc attributes such blue glass to a French origin (assumedly taking on this color from wood-fired rather than coal-fired furnaces).

A total of 122 of the 274 glass fragments appeared to be flat. These could either have derived from window panes (for which there was no confirming evidence such as lead cames) or from the flat sides of case bottles. At least one case bottle base was recovered from the Chalkley site, as was a single neck fragment.

Distributional Analyses

As stated previously, formal test excavations at the Chalkley site were limited to the area immediately around the 16.5 x 20-foot earthfast structure. Although this architecturally based testing strategy is far from ideal for the study of artifact distributions, it is still worthwhile to examine any information contained in the results, if only to supply others with comparative data. In fact, despite the limited areal coverage, notable variability can be seen in the distributions of different artifactual materials. Figure 12 depicts the distribution of four major artifact types — nails, ceramics, tobacco pipe fragments, and English flint debitage — displayed in relation to the house footprint.

Briefly described, nails, pipes, and flint all show a significant tendency to be distributed to the east of the structure, in the direction of the steep embankment. Nails also display a notable concentration around the northwest corner of the building. Ceramics are the only artifacts to display a distinct variation from this pattern, with a very distinct concentration both inside and outside the northwest corner.

In order to improve upon the limited utility that this excavation unit data possesses for distributional analyses, the information was augmented by overlaying the data obtained in the five piece-plotted surface collections. The results of these analyses are visually portrayed in Figures 13-17. In an attempt to facilitate interpretation and discussion, the area of the site was divided into quadrants north, south, east, and west of the building. In viewing these results it is also important to remember the existence of special terrain features such as the spring to the north of the house, and the landing on Church Creek which is to the northeast. Other topographical factors include a steep cliff just southeast of the structure, and the general slope of the land from west to east (see Figure 13).

Figure 13 shows all of the piece-plotted artifacts recovered from the various surface collections, plotted against the location of the earthfast structure. The bottom edge of the figure represents the edge of the agricultural field which is about twenty feet from a steep gully leading to Church Creek.

There is an obvious concentration of artifacts around the building, and some suggestion of a blank spot where the structure itself stood. Although the blank spot is probably not statistically significant, the fact that the structure did not possess any cellars or storage pits might mean that it acted more like later historical sites in producing such a void.

Figure 13 also demonstrates that trash disposal occurred along the path to the northern spring, and more particularly along the route towards the landing at Church Creek. A similar midden concentration appears to the west of (and uphill from) the house. This might be taken as an indication that an outbuilding of some kind once existed in this direction. Although no

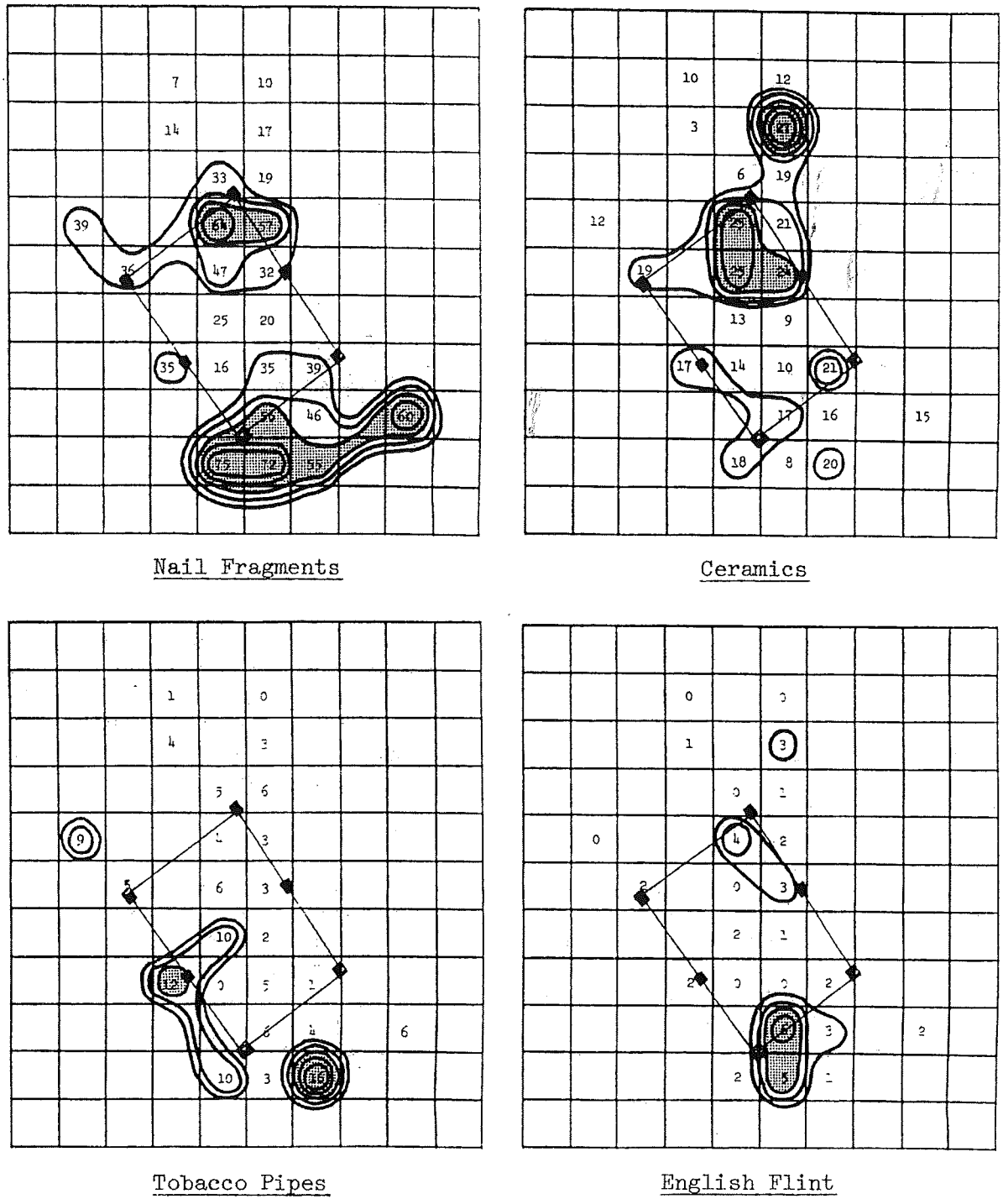


FIGURE 12. Distribution of artifacts from excavation units.

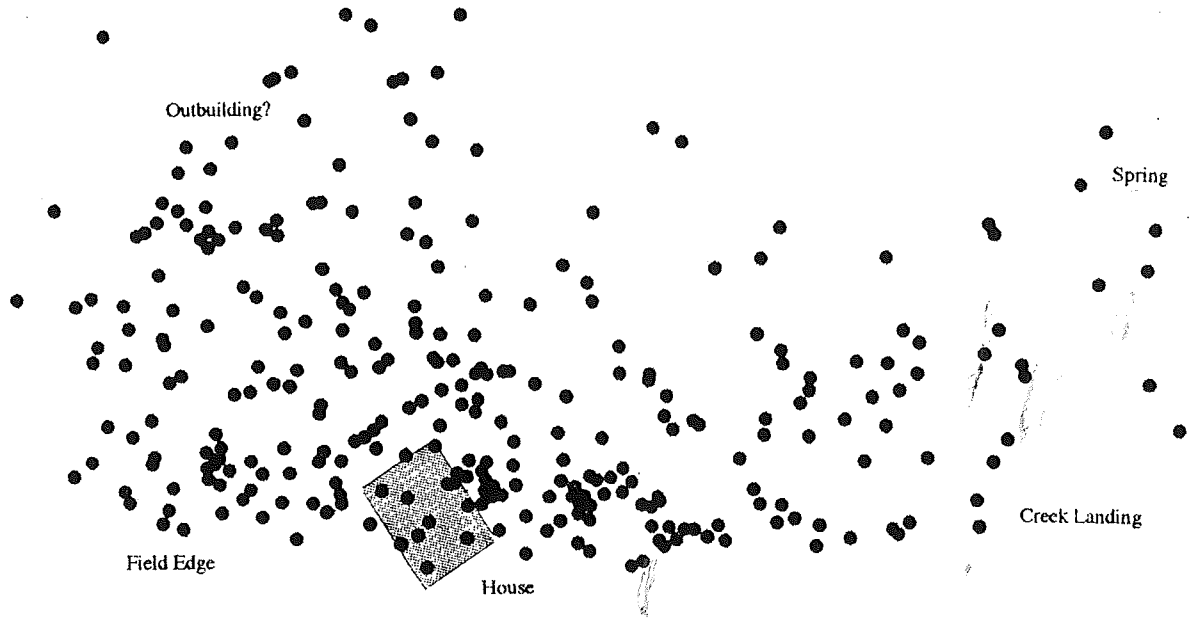


FIGURE 13. Distribution of all artifacts from surface collections.

excavations occurred in this area, the existence of at least one outbuilding on a homelot of this type would be quite predictable.

Nails

The surface collection data show nail fragments concentrated around the house, mainly to the northeast and west (see Figure 14). Nails are found in greater numbers to the northeast, but since this is in a downhill direction from the structure, this dispersal might be influenced by erosional factors. The nail fragment cluster to the west of the structure might be indicative of an outbuilding which may have existed in this uphill direction.

As noted previously, nail fragments recovered from the excavated units exhibit a notable concentration in the northwest corner of the house, and an enormous concentration just off the edge of the plowed field to the east. While the explanation for this remains unclear, it might be that when the earthfast structural supports for the house had weakened sufficiently, the house collapsed (or was pushed) in this direction which is towards the small cliff and gully. An alternative explanation for this distribution may simply be that the area corresponds to the region nearest to the house which is off the plowed field, and thus enjoys superior metal preservation.

Glass

With smaller numbers, glass fragments demonstrated essentially the same distribution as nail fragments (see Figure 17), with the exception that glass is not concentrated to the southwest, i.e., in the area of the hypothetical outbuilding. Bottle glass was particularly concentrated to the northeast in the direction of the Church Creek water access.

Ceramics

In addition to a dispersal in the direction of the landing, ceramics exhibited a tendency to be deposited in the direction of the northern springhead (see Figure 15). Ceramics also show a large concentration to the southwest in the area of the possible outbuilding. The most notable factor in the distribution of ceramics, however, is the extremely large numbers recovered just inside and outside the northwest corner of the main structure. This clearly indicates the locus of some activity involving food preparation and serving, and is quite possibly indicative of a doorway which provided access to a main activity area of the homelot.

Pipe Fragments

The distribution of clay tobacco pipe fragments is dramatic in the area of the hypothetical outbuilding

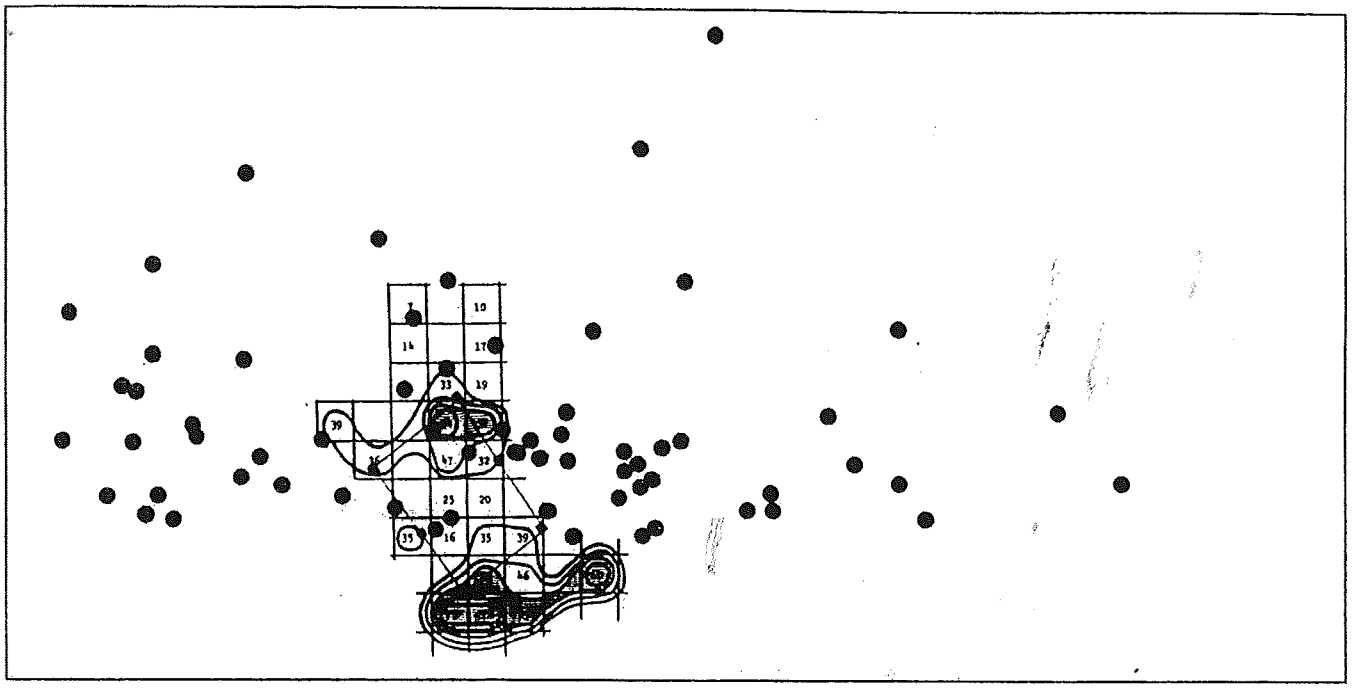


FIGURE 14. Distribution of nails.

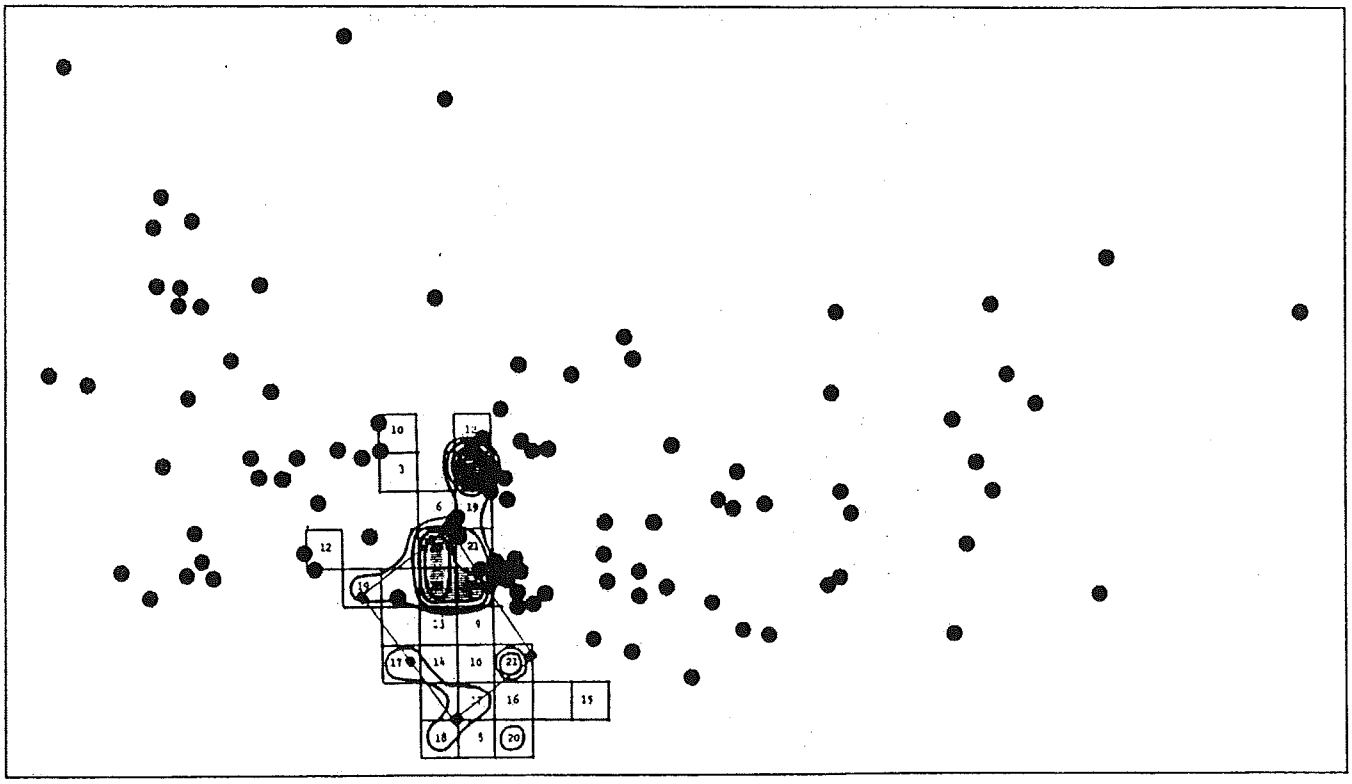


FIGURE 15. Distribution of ceramic sherds.

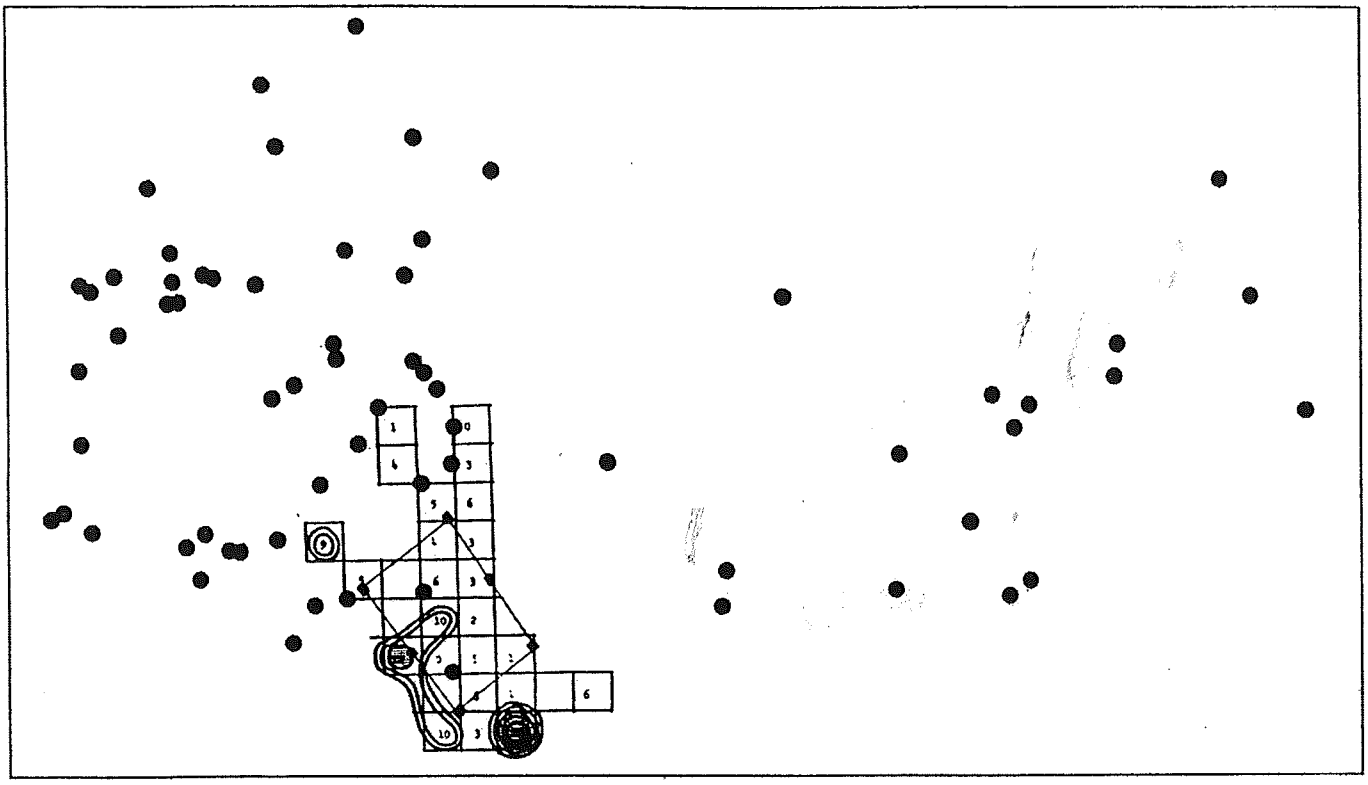


FIGURE 16. Distribution of tobacco pipe fragments.

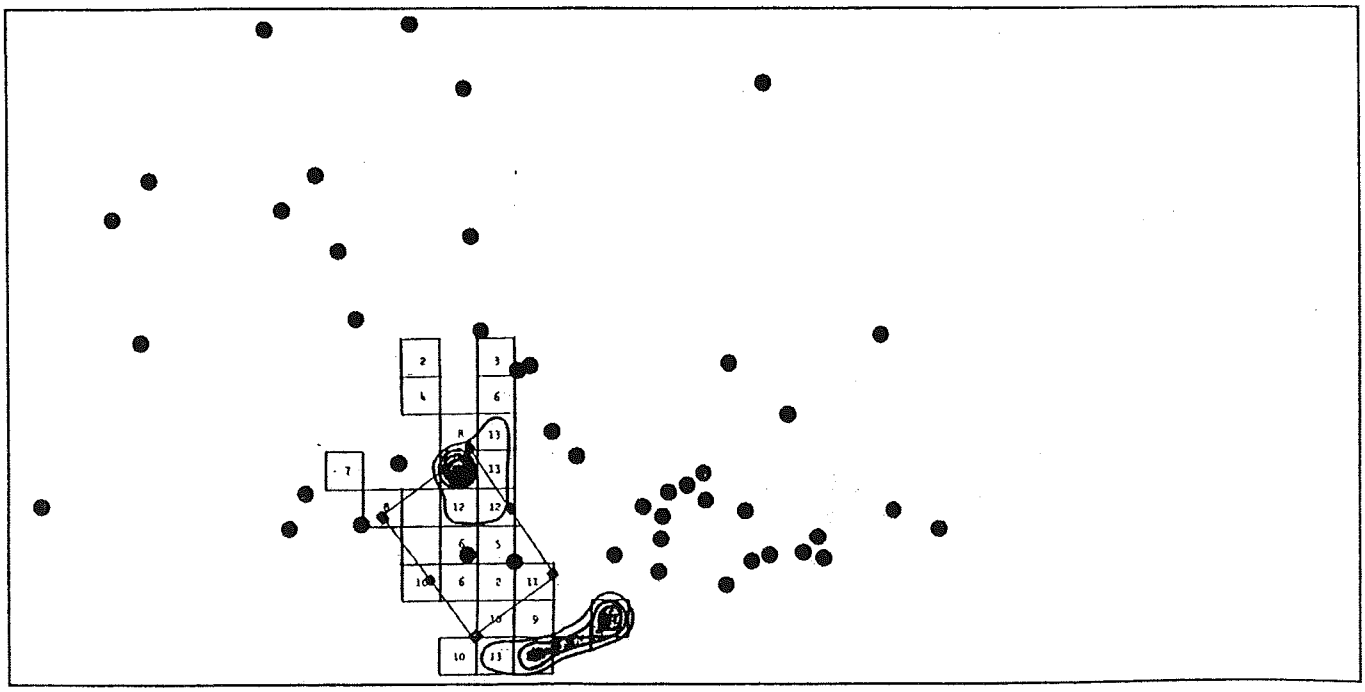


FIGURE 17. Distribution of glass fragments.

west and southwest of the main structure (see Figure 16). There is also a notable concentration in the direction of the northern springhead, as well as to the east of the house as noted in the excavation units described previously. This latter concentration may be indicative of a doorway on this façade of the structure.

Flint

Although flint from the surface collections was found in numbers insufficient to depict in the fashion shown for other artifact types, the distribution map shown in Figure 12 obtained from the 5 x 5-foot test units indicates a concentration just east of the building similar to that seen for pipe fragments. The location of flint debitage has often been taken by other authors as an indication of doorway placement (see Pogue 1990:17).

Activity Areas

Archeological data on the specific activities which took place at Jeffe's Inheritance is relatively sparse. For example, except for the presence of clay pipe fragments, there is no actual evidence of what was undoubtedly the main productive activity on the homelot, growing tobacco. Similarly, it can be assumed that the Jeffes raised cattle and pigs for meat, milk, and perhaps as a supplementary source of income (see Carr et al. 1991:73). However, given the lack of faunal preservation at the site, the only inferential evidence for such practices are represented by the coarse earthenware milk pans and butter pots.

The clearest evidence for a productive activity at this site involves the knapping of flint to produce gunflints and strike-a-lights, and the casting of musket balls from lead. As described, numerous examples of English flint flakes were recovered which represent the home manufacture of gunflints; broken examples of the flints themselves were also found. The crude nature of these gunflints further attests to their having been produced on-site. The source of this flint was most likely ballast which was frequently contained in English shipping.

A number of spherical lead balls for use in flintlock muskets (or, doubtfully, pistols) were recovered during the excavations. These range in size from 0.3" to 0.7" in diameter, the smaller sizes undoubtedly representing birdshot. Abundant evidence was found to indicate that these lead balls were being produced on-site. In this case the evidence consists of various sized lead "drops" which are the waste products from casting bullets in molds. Why this lead would be discarded, since it could easily have been remelted and reused, is unclear. One obvious conclusion is that there was no critical scarcity of this material.

In fact, one seemingly wasteful use of lead produced clear evidence of another agricultural activity at the homelot. One large, seemingly amorphous, piece of lead was found, upon washing, to be a very intentionally produced cast of a peach pit, shown in Figure 11. Orchards of peaches and apples are known to have been present on almost every homelot in the Chesapeake region (see Carr et al. 1991). On sites with good preservation of organic materials, seeds have produced direct evidence of these activities that provide a direct back-up for the documentary sources. However, the lead pit found at the Chalkley site is unique. Since it serves no obvious function, it can only be assumed to be the product of boredom.

Conclusions

Compared to other archeological sites dating from the late 17th century, Jeffe's Inheritance was not rich in artifacts, and those which were recovered were not of a type to stir the public imagination. This was to be expected, however, considering the nature of the occupation that the site represents. The sparse assemblage of finds stands as mute testimony on the lifestyle of the individuals who discarded them.

Since the occupation of the Chalkley site appears to be no more than sixteen years, and quite possibly as few as six or eight, the site has a great potential to assist in the refinement of archeological chronologies based on material culture. The fact that IF pipes, traditionally assigned dates from 1651-1669, do not provide a good fit with the best-guess documentary dating of the Chalkley site (1677-1685) is one example of this. Other important findings in this regard include the presence of Staffordshire combed-slipware, manganese-mottled ware, and black-glazed redware, each represented by a single vessel, and the absence of a number of often-encountered artifact types such as LE or WE pipes, Rhenish blue and grey salt-glazed stoneware, or any Dutch pipes or ceramics so common on third quarter sites in the region (Luckenbach 1995).

The Chalkley site also provides added information concerning the locational choices preferred by 17th century settlers in Maryland (see Figure 18). The site adds further confirmation of the springhead orientation of most dwelling sites during this early

FIGURE 18. Aerial view of the Chalkley site.

period. Deep-water access as a matter of economic necessity was kept nearby, but not immediately adjacent to the home site.

The study of trash dispersal over the site has also been informative. While the small sample size has limited the distributional analysis at Jeffe's Inheritance to vague inferences, it does add to a growing body of such information available for comparative studies. In doing so, it also provides yet another argument for the importance of distributional information contained in the disturbed plowzone. As stated previously, if the plowzone information had been ignored at the Chalkley site, the artifact assemblage available for analysis would have been reduced to zero.

If our suppositions concerning the nature of the occupation at Jeffe's Inheritance are substantially correct, then the site provides historians with a glimpse at a very common type of 17th century domestic dwelling, and one which has received surprisingly little attention from archeologists — a small, earthfast dwelling with a single, brief occupation.

Since Thomas Jeffe, Jr. may well have been forced to sell this structure and its surrounding plantation by the economic effects of the tobacco depression of the 1680s, the site becomes, in essence, a physical manifestation of the end of the economic and social mobility available to smaller planters in the earlier part of the 17th century (see Carr and Menard 1979:163, 233-236). It would also not be unlikely that an added factor in his decision to sell involved soil exhaustion caused by tobacco agriculture. If true, it would be easy to see why the land might have been purchased in 1685 for speculative purposes only, and allowed to go fallow. The small, untended example of "impermanent architecture" sitting on Jeffe's Inheritance would not have remained on the landscape for long.

Acknowledgements

The excavations at Jeffe's Inheritance would not have been possible without the kind permission of Mr. Hunting Davis, and the patient labor of numerous volunteers.

References Cited

Binford, Lewis
1961 A New Method for Calculating Dates from Kaolin Pipe Stem Samples. *Southeastern Archaeological Conference Newsletter* 9(1):19-21.

Carr, Lois Green, and Russell R. Menard
1979 Immigration and Opportunity: The Freedman in Early Colonial Maryland. In *The Chesapeake in the Seventeenth Century: Essays on Anglo-American Society*, edited by Thad W. Tate and David Ammerman. W.W. Norton & Co., New York.

Carr, Lois Green, Russell R. Menard, and Lorena S. Walsh
1991 *Robert Cole's World: Agriculture and Society in Early Maryland*. University of North Carolina Press, Chapel Hill.

Carson, Cary, Norman Barka, William Kelso, Garry Wheeler Stone, and Dell Upton
1981 Impermanent Architecture in the Southern American Colonies. *Winterthur Protfolio* 16(2-3): 135-196.

Cranmer
1990 Cushnoc: The History and Archaeology of Plymoth Colony Traders on the Kennebec. *Occasional Publications in Maine Archaeology*, No. 7.

Doepkins, William
1991 *Excavations at Mareen Duvall's Middle Plantation of South River Hundred*. Gateway Press, Baltimore.

Goggin, John M.
1960 The Spanish Olive Jar: An Introductory Study. *Yale University Publications in Anthropology*, No. 62. Yale University Press, New Haven, CT.

Grant, Alison
1983 *North Devon Pottery: The Seventeenth Century*. University of Exeter, Exeter, England.

Harrington, J.C.
1954 Dating Stem Fragments of Seventeenth and Eighteenth Century Clay Tobacco Pipes. *Quarterly Bulletin of the Archeological Society of Virginia* 9:9-13.

Hurry, Silas, and R.W. Keeler
1991 A Descriptive Analysis of the White Clay Tobacco Pipes from the St. John's Site in St. Mary's City, Maryland. In *Archaeology of the Clay Tobacco Pipe XII: Chesapeake Bay*, edited by P. Davey and D. Pogue, pp. 37-72. British Archaeological Research International Series 566.

Luckenbach, Al
1995 *Providence 1649: The History and Archaeology of Anne Arundel County, Maryland's First European Settlement*. Maryland State Archives, Maryland Historical Trust, Annapolis.

Middleton, Arthur Pierce
1953 *The Tobacco Coast*. The Johns Hopkins University, Baltimore.

Miller, Henry M.
1983 The Search for the "Citty of Saint Maries." *St. Maries Citty Archaeology Series*, No. 1. St. Mary's City Commission.

Noël Hume, Ivor
1958 German Stoneware Bellarmines: An Introduction. *Antiques* 74(5):439-441.
1969 *A Guide to Artifacts of Colonial America.* Alfred A. Knopf, New York.

Oswald, Adrian
1960 The Archaeology and Economic History of English Clay Tobacco Pipes. *Journal of the British Archaeological Association*, Third Series, 23:40-102.

Outlaw, Alain Charles
1989 The Compton Site, Circa 1651-1684, Calvert County, Maryland. Louis Berger and Associates, East Orange, New Jersey.

Pearle, Jacqueline
1992 *Border Wares*. Museum of London.

Pogue, Dennis
1990 King's Reach and 17th-Century Plantation Life. *Jefferson Patterson Park & Museum, Studies in Archaeology*, No. 1.

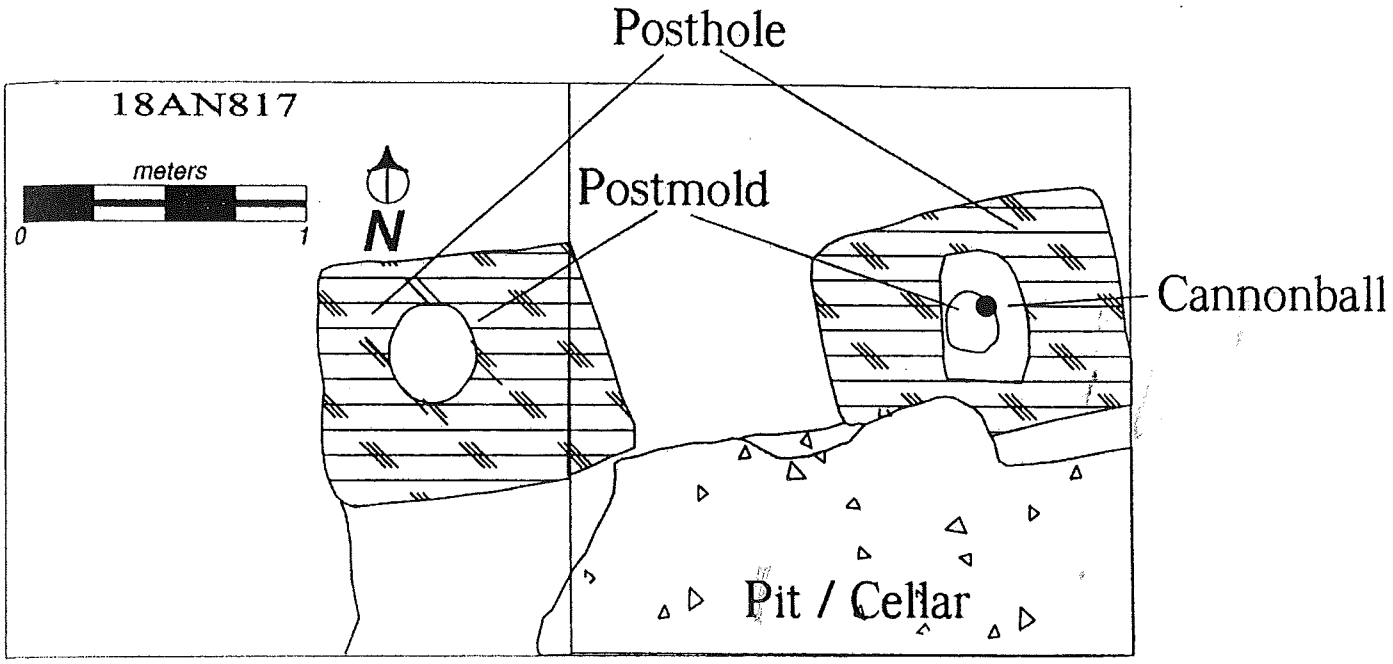
Rule, Pamela, and June Evans
1982 Archeological Investigations at South River Landing, Anne Arundel County, Maryland. Report to South River Landing, Incorporated. The American University, Washington, D.C.

Walker, Iain C.
1971 *The Bristol Clay Tobacco-Pipe Industry.* City Museum, Bristol.
1977 Clay Tobacco Pipes with Particular Reference to the Bristol Industry. *History and Archaeology Series* 11a. Parks Canada, Ottawa.

Watkins, C. Malcom
1960 North Devon Pottery and its Export to America in the 17th Century. *U.S. National Museum Bulletin* 225, Washington, D.C.

Al Luckenbach
Donna Ware
Anne Arundel County
Office of Planning and Code Enforcement
2664 Riva Road
Annapolis, MD 21401

Esther Read
Baltimore Center for Urban Archaeology
802 E. Lombard Street
Baltimore, MD 21202



CONTRIBUTOR: Jason D. Moser, *The Lost Towns of Anne Arundel Project*

SITE NAME, NUMBER: The Stephen Steward Shipyard (18AN817)

ARTIFACT TYPE: A Cannonball and a Post

In April 1998, while excavating a test unit at the Stephen Steward Shipyard (18AN817), *The Lost Towns of Anne Arundel Project* found a 6.1-pound (3.66-inch diameter) cast iron cannonball embedded in a posthole. The Steward Shipyard site, located on the West River in Anne Arundel County, Maryland, operated from the mid- to late-18th century, building and repairing colonial and Revolutionary War period vessels.

The shipyard was a likely place to find a cannonball. Many pre-Revolutionary merchant vessels were armed. Despite a convoy system that escorted vessels to British waters, merchant vessels frequently traveled without the protection of convoys. Much of the 18th century Chesapeake trade trafficked with the West Indies, to which there were no convoys. For this reason many merchant vessels were armed to combat the many privateers and pirates so prevalent at that time.

The cannonball is associated with the activities of Stephen Steward, shipwright, and merchant Samuel Galloway III. Between 1753 and 1772, Steward's yard may have built many of the 24 vessels owned by Galloway, two of which he co-owned with Steward (Thompson 1993). During this period Steward's yard may have outfitted merchant vessels with armaments.

Little direct information can be gathered from the cannonball. We know that by the 18th century this caliber of shot was used in carronades — short, large caliber cannons primarily used aboard ships. "Six-pounders" also were prevalent in field artillery (Manucy 1962). Indeed, many of the guns in George Washington's army were between 3- and 24-pounders.

With the onset of the American Revolution, Steward built and outfitted vessels for the Maryland Council of Safety (Thompson 1993). In this capacity the Steward Shipyard built the row-galley *Conqueror*, a small military sailing vessel that also possessed oars for use in shallow waters. Although classed as twenty-gun vessels, they carried two to four eighteen-pounders and eight to fourteen lesser guns, such as carronades and swivel guns (Middleton 1981).