

2% horse) are most similar to the Hawthorn site, an upper class, owner-occupied farmstead. The Hawthorn site assemblage also contained a single species of wild game, as was also noted at the Ogleton Tavern, indicating only a single hunting or purchase event.

Flotation Analysis - Artifacts from four flotation sample columns were analyzed in order to determine spatial (vertical and horizontal) distribution of charcoal and brick and the presence of artifact types not recoverable using standard excavation procedures. The four column samples measured 1' to a side and were excavated in 0.4' levels from a continuous north-south profile of Feature 1 (west wall of large pipe trench, Figure 22). The soil was floated and a heavy fraction was collected. Charcoal and brick were tabulated by weight, other artifacts by raw counts (Appendix VII). Bone was both counted and weighed. Comparisons were made level by level within and between columns.

Figures 45 and 46 show the vertical distribution of charcoal, brick, and bone through the flotation columns. Charcoal shows a varied distribution with concentrations noted at the top, middle, and bottom of the different columns. Similarly, brick shows a very variable distribution among the flotation columns with concentrations in different parts of each column. Bone (Figure 46) distributions, measured by both count and weight, shows similarly varied distributions. In general, the varied distribution of charcoal, brick, and bone through the flotation columns supports the interpretation of the fill of Feature 1 as a short-term depositional event with much mixing of the stratigraphy.

The flotation process yielded a variety of bone remains, but few seeds. A total of nine sesame seeds were recovered from Level 4 of flotation block Number 25 and their interpretation is problematic. Most of the bone remains were quite fragmentary and not readily identifiable; however, numerous fish remains including doliths, vertebrae, and scales were present. As noted in the archival research, seafood and fish were sometimes served at taverns and the presence of these remains in the John Ruth Inn flotation confirms their presence at this site.

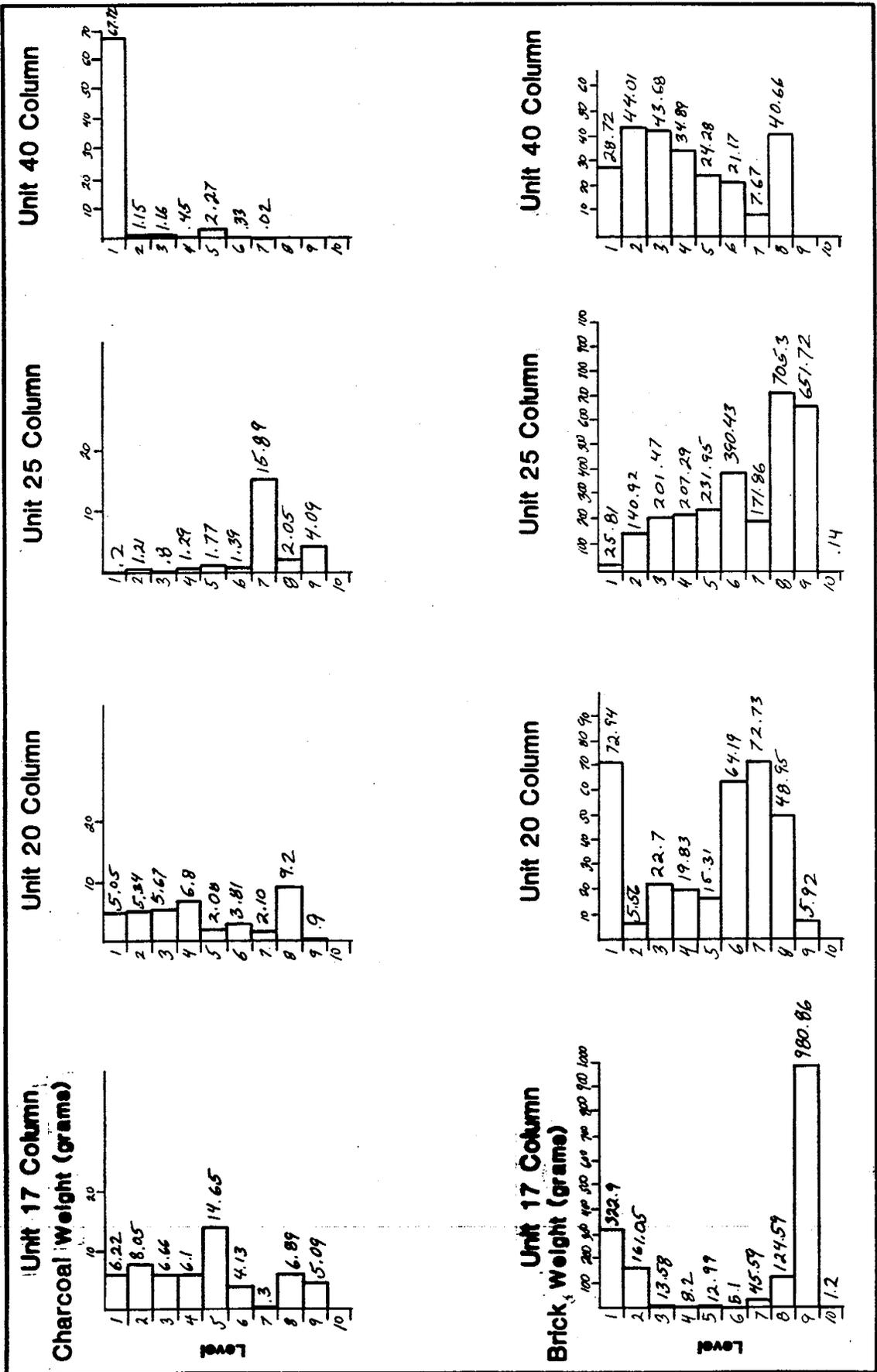
## **CHRONOLOGICAL ANALYSIS**

### **CERAMIC SERIATION, MEAN CERAMIC DATE, PIPESTEM DATE**

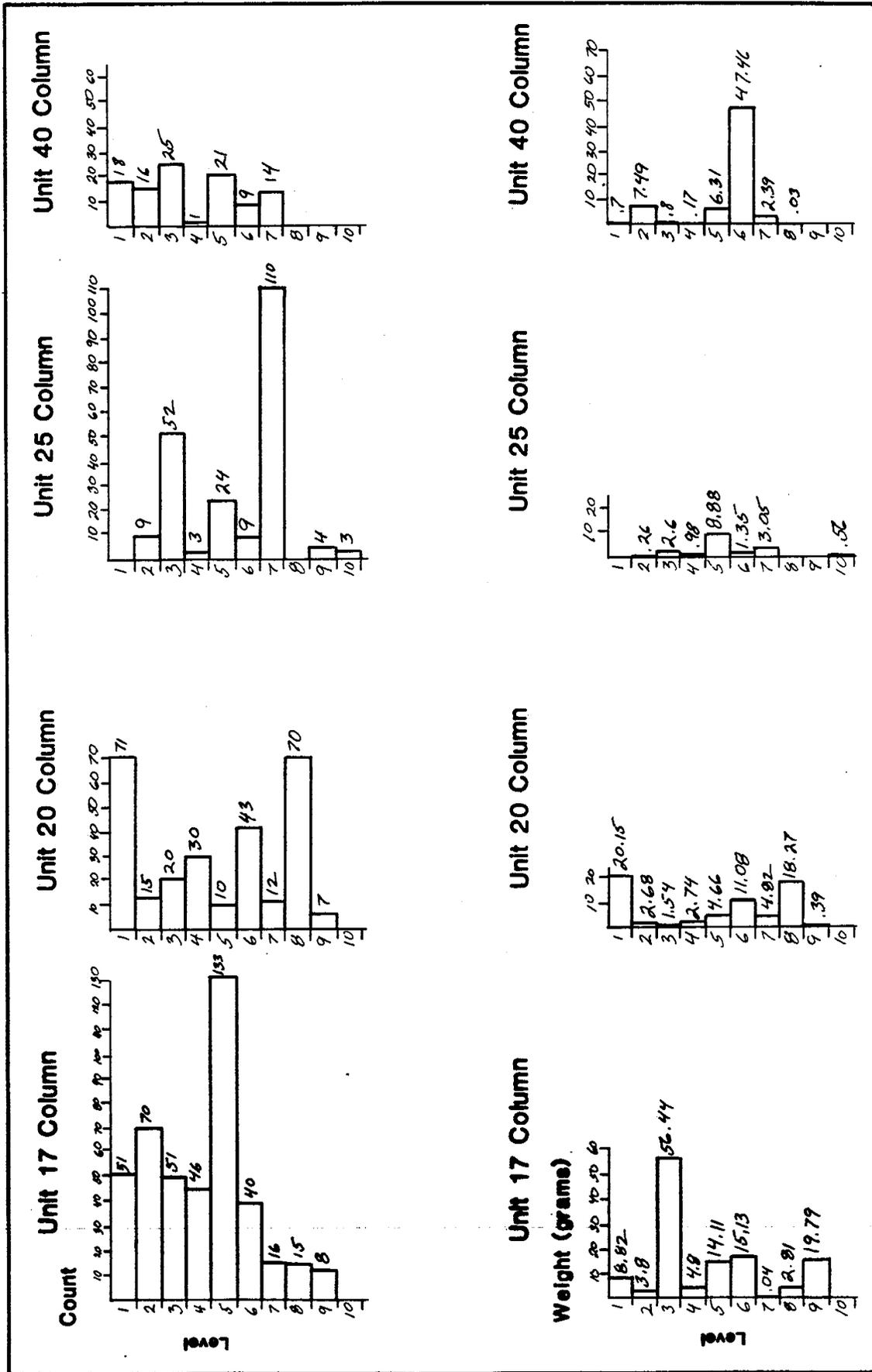
In order to provide objective chronological data on the Feature 1 fill several different types of analysis were carried out. These ranged from the subjective visual interpretation to more objective analyses employing a single class of artifacts. The results of these analyses will be discussed and interpreted and elaborated by information supplied by stratigraphy and diagnostic artifacts.

Figure 47 presents the date ranges of the South ceramic type numbers recovered from Feature 1 and intruding features. Also

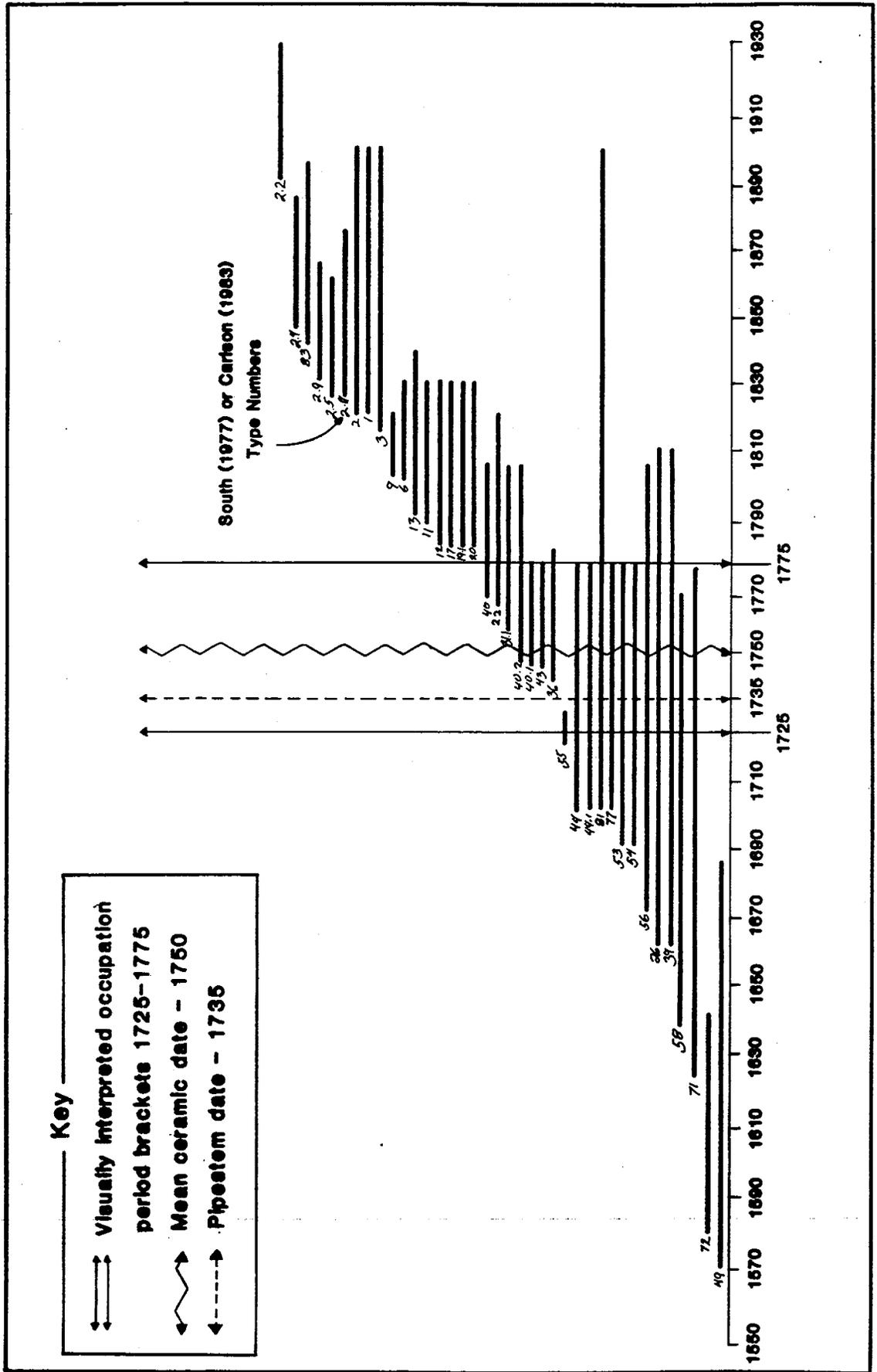
**FIGURE 45**  
**Charcoal and Brick Distribution from Flotation Samples**



**FIGURE 46**  
**Bone (Count and Weight) Distribution from Flotation Samples**



**FIGURE 47**  
**Feature 1, Ceramic Type Date Range**



shown on the chart, but only for the Feature 1 assemblage, are the visually interpreted occupation bracket dates (South 1977), the mean ceramic date (MCD), and the pipe stem date (Binford 1972). As can be seen by an examination of the chart, the end occupation bracket date is very clear. The lack of significant varieties and quantities of early-late eighteenth century wares, particularly creamware, contributes significantly to the discrete separation of the occupation responsible for the deposition of Feature 1 and that of the later eighteenth century John Ruth Inn occupation.

The mean ceramic date and the pipe stem date fall within expected ranges. The somewhat early date for the assemblage based on the pipestem date is common on sites of this time period. When the few marked fragments and intact bowls and/or stems are considered their dates of manufacture seem however to agree with the ca. 1735 date.

Several different assemblages were employed to calculate mean ceramic dates (MCD) for each of South's categories. Initially, a MCD was calculated for the entire site assemblage based on sherd counts. The mean ceramic date derived from this calculation produced a date of 1809.1 when redware counts were included. As noted, Redware was given a mean ceramic date of 1800 for this analysis (Appendix V). After this sherd level analysis, a mean ceramic date was calculated based on minimum vessels from Feature 1 only. For this analysis several mean ceramic dates were determined based on the inclusion or non-inclusion of redware and of ceramic types recovered from the disturbed uppermost horizon. When all vessel ceramic types were included (382) a mean ceramic date of 1786.1 was obtained. Without redware a site mean ceramic date based on vessels of 1779.2 was derived. If whiteware and ironstone were excluded, obtaining a more realistic appraisal of Feature 1, a date of 1778.5 was obtained. When both whiteware, ironstone, and redware were dropped a date of 1766 was given. The most realistic MCD based on reconstructed vessels (151) from undisturbed levels of Feature 1, and excluding redware, whiteware, and ironstone gave a MCD for Feature 1 of 1750.2.

The calculation of mean ceramic dates at eighteenth and nineteenth century archaeological sites dominated by coarse red earthenwares is problematic at best. Because of its dominance in many assemblages, of both low and high socioeconomic status, a change in the MCD given for redware can considerably alter the MCD for the feature, site or level. Based on former research, a MCD of 1800 was used in the analysis based on manufacturing dates of 1700-1900. As more research on pottery manufacturing in Colonial America is completed the early importance of this predominantly locally produced red earthenware is becoming clear. For example, archaeological excavations of eighteenth century privies in Philadelphia recovered earthenwares and kiln wasters from deposits dated 1730-1760 and Bower (1985) divides the Philadelphia pottery production into three periods: 1) Early

Period, 1685-1720, during which time seven potters were identified who manufactured earthenware exclusively; 2) Middle Period, 1721-1750, a period of moderate expansion and the development of stoneware production 3) Late Period, 1751-1775, a period during which Philadelphia products came to be widely distributed along the East Coast. Northern Delaware, along with southeastern Pennsylvania and New Jersey, was located within the local area solely served by the Philadelphia potters until the 1730s marketing expansion. The goods sold, advertised as "Philadelphia earthenware" were a red-bodied ware with a lead glaze and were produced in a wide range of shapes and forms. It is thus highly likely that much, if not all of the red-bodied earthenware found at the John Ruth Inn Site is locally made. This fact combined with the known date of infilling of the cellar, argues for a much earlier mean ceramic date for American redware under South's dating scheme.

The lack of chronological patterning of the cellar infilling is substantiated by Table 13. From both an analysis of stratigraphic information, the terminus post quem dates for each level, and the MCDs, no significant chronological variations are

**TABLE 13**  
**MEAN CERAMIC DATES FOR FEATURE 1**  
**(INCLUDES REDWARE)**

Context	Number of Sherds	MCD
Unit 16, Level 1	211	1822.8
Unit 16, Level 2	96	1803.5
Unit 16, Level 3	89	1796.7
Unit 16, Level 4	57	1789.5
Unit 16, Level 5	61	1788.3
Unit 16, Level 6	44	1789.5
Unit 16, Level 7	45	1787.9
Unit 16, Level 8	34	1778.9
Unit 16, Level 9	20	1786.6
Unit 16, Level 10	20	1782.6
Unit 34, Level 1	159	1811.4
Unit 34, Level 2	103	1795.7
Unit 34, Level 3	54	1787
Unit 34, Level 4	52	1784.4
Unit 34, Level 5	48	1785
Unit 34, Level 6	8	1785.8
Unit 34, Level 7	13	1800
Unit 34, Level 8	12	1794.4
Unit 34, Level 9	18	1790.1
Unit 34, Level 10	14	1771.3
Unit 34, Level 11	4	1800

present when the first two mixed levels are excluded. The absence of chronological variation indicates that the cellar infilling occurred within a relatively short time period, or episode of filling. This conclusion is also supported by an

analysis of the cross-mends in vessels obtained from Feature 1. For redware, out of a total of 136 vessels, at least 35 exhibit cross-mends with proveniences separated both vertically and horizontally throughout the feature. In numerous cases sherds from units from opposite areas and widely different levels of the feature exhibit cross-mends. Also noted, but less frequently, are cross-mends within the same unit from different levels. In several instances sherds from Level 3 were found to cross-mend with sherds located in the bottommost levels of the feature. Cross-mends for redware vessels were also made between several features (Y, 17, and 5) and the general Feature 1 fill, proving the filling of these features at the same time and/or same deposits as that of Feature 1. The presence of successful cross-mends between the intermixed horizon and from levels within both the upper and lower levels within Feature 1 indicate that the intermixed deposit was formed from Feature 1 soils sometime after the main Feature 1 filling.

### **COINS**

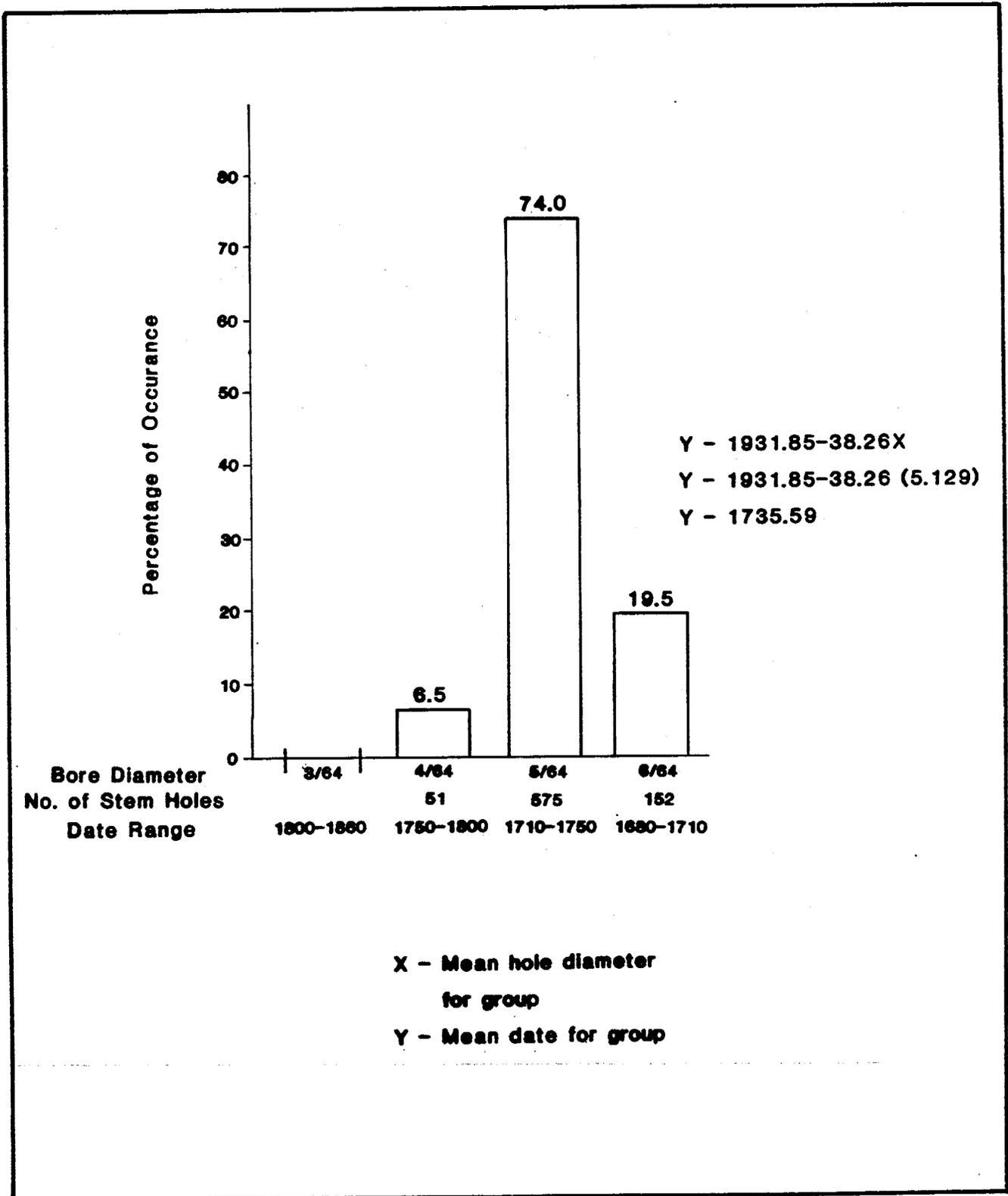
A total of 16 coins were recovered from the excavation. Table 11 lists their type, and date of manufacture. With the exception of the 1862 Indian Head Cent and a 1946 Lincoln cent recovered from a nineteenth century provience, all are of eighteenth century manufacture.

### **PIPESTEM DATE**

The importance of the study of English tobacco pipes from historic sites has long been recognized because these artifacts are easily dated and their chronology is well-documented (Oswald 1951; Harrington 1954; Binford 1962; Noel-Hume 1982, 1985). One thousand forty-nine pipe and bowl fragments were found, of which approximately 75% were stem pieces with measurable bore holes. Binford's (1962) formula for dating pipes involving the measurement of bore holes was employed and the sample yielded a date of 1735.59 (Figure 48). However, it has been demonstrated that this formula tends to produce dates consistently earlier than those suggested in cases when evidence other than the diameter of pipe-stem bore holes is available (Noel-Hume 1985). With two exceptions (#5 and #16) all coins recovered date to the second decade of the eighteenth century. Number 5, located in the feature fill of the south wall provides the best terminus post quem for the success of occupation of the structure and subsequent filling in of the cellar hole. Number 16, located within the Feature 1 fill in a disturbed area, probably resulted from the excavation for Features F and G (postholes with molds).

FIGURE 48

Harrington Bar Graph and Binford Formula



## INTERPRETATIONS

No postholes or molds were located either within the cellar of Structure 1, or around the edge of the cellar hole. The absence of these features gives solid evidence that the structure was not a hole-set frame building nor a puncheon building (Carson et al. 1981). The presence of the fairly continuous trenches along the cellar walls also provides no evidence for the existence of a framed building on hole-set blocks. The method of construction of the building could have been based on known eighteenth century construction techniques, a fully framed structure rising from ground-laid sills, a plank-framed construction where planks are set vertically and fastened to a ground laid sill or frame structure rising from a masonry foundation. The total amounts of both brick and stone suggest that the structure had neither stone or brick walls. Building skills and costs for these building types were in the seventeenth and eighteenth centuries very dissimilar, plank framed houses being constructed by "the poorest" who set up East Jersey while most hole-set buildings were constructed for middle class households (Carson et al. 1981). Brick or stone walled houses within this area are indicative of upper status residences. Horizontal log walling and stone or block foundations are very common during the eighteenth century throughout Delaware (Herman 1987).

The last possibility suggested a frame structure erected upon a stone foundation wall (Dr. Bernard Herman, personal communication 1987). The trenches located by the excavation would have functioned as builder's trenches with a dry-laid or clay mortared wall laid up above from the bottom of the cellar up through the cellar and raised above the ground surface. Upon this wall would have been constructed, based on a statistical analysis of eighteenth century records, a frame structure probably of horizontally-placed logs (Dr. Bernard Herman, personal communication 1987). Based on this interpretation, the stone found along the western wall of the cellar (Feature 4) would represent the unsalvaged lowermost portion of a former continuous foundation wall. When the location of the bulkhead entrance is also considered, it is likely that this feature represents the unlooted remains of the chimney pile which formed a major portion of the western wall. Based on architectural comparisons of extant and non-extant eighteenth century structures, it is common to have the bulkhead entrance placed against the hearth wall (Dr. Bernard Herman, personal communication 1987).

The presence of Feature 8, a segment of a mid-eighteenth century walkway, indicates that doorways were most likely located center front and probably center rear (Figure 49). A window was most likely located on the east (gable) end wall. Archaeological evidence; i.e., the fact that Feature 9 (trench feature) extends into the western addition area, places the construction of this 10' X 7' addition after the initial construction of the main 18' X 15' block. It is likely that during construction of the