FENCE LINES

A number of relatively small oval and ovate-shaped features were located to the north and west of the previously described posthole features of Structures I and II. The locations and arrangement of several of these features suggest that they indicate the locations of fence lines. Although the patterning of these features is readily apparent, they are not arranged in pairs like the aforementioned structure-related postholes. Such archaeological evidence exists only for post-and-rail fence construction because no evidence of ditch-or trench-laid fences, a technique commonly utilized during colonial times (Kelso 1984), was observed below the plowzone anywhere on the site. It is not known whether such a fencing method was not practiced by the occupants of the site, but if these paling ditches did exist, they were not deep enough to survive the later ravages of plowing.

Although many dark, post-like features were observed below the plowzone in the area north of the structural remains, excavation suggested that many were the result of root, rodent, or other non-cultural activities. This contention is based on the variety of shapes observed upon cross-sectioning. In general, meandering pockets of feature fill and profiles of deep, narrow, and essentially pointed subsoil intrusions are thought to be indicative of such non-cultural disturbance (Features 10, 14, 15, 16, 52, 56 and 76; Figure 19).

A series of other more regularly-shaped dark brown oval features suggests the remains of post-and-rail fencelines situated both parallel and perpendicular to the postholes of Structures I and II (Features 48-51, 53 and 66-72, 11, 13, and 75; Figure 39). The most direct evidence of these fence lines was found to the immediate north of the postholes of Structure I and the adjacent midden features.

Upon excavation, these post features displayed similar profiles consisting of fairly straight walls sloping gradually inward to form rounded bases. An additional characteristic observed among several of these features, at both the subsoil surface and in cross-section views, was that these posts were placed in prepared holes (Figure 40). However, these holes generally were not of the oversized nature which characterized the structure-related holes apparent to the south and appeared to be only large enough to accommodate the posts. These holes also were not found to be of uniform and substantial depths required in order to seat the main structural upright members characteristic of earthfast construction. One of these features, however, consisted of the remains of a more substantial post. One of these post-like features could be followed to the bottom of an oversized hole (Feature 53, Figure 41). The circular outline of the post was marked by a ring of carbonized wood remains evident below the plowzone (Plate 10) and contained within a larger hole characterized by a mottled orange subsoil with darker, more organic soil and small flecks of brick and

FIGURE 40

Profile of Feature 49

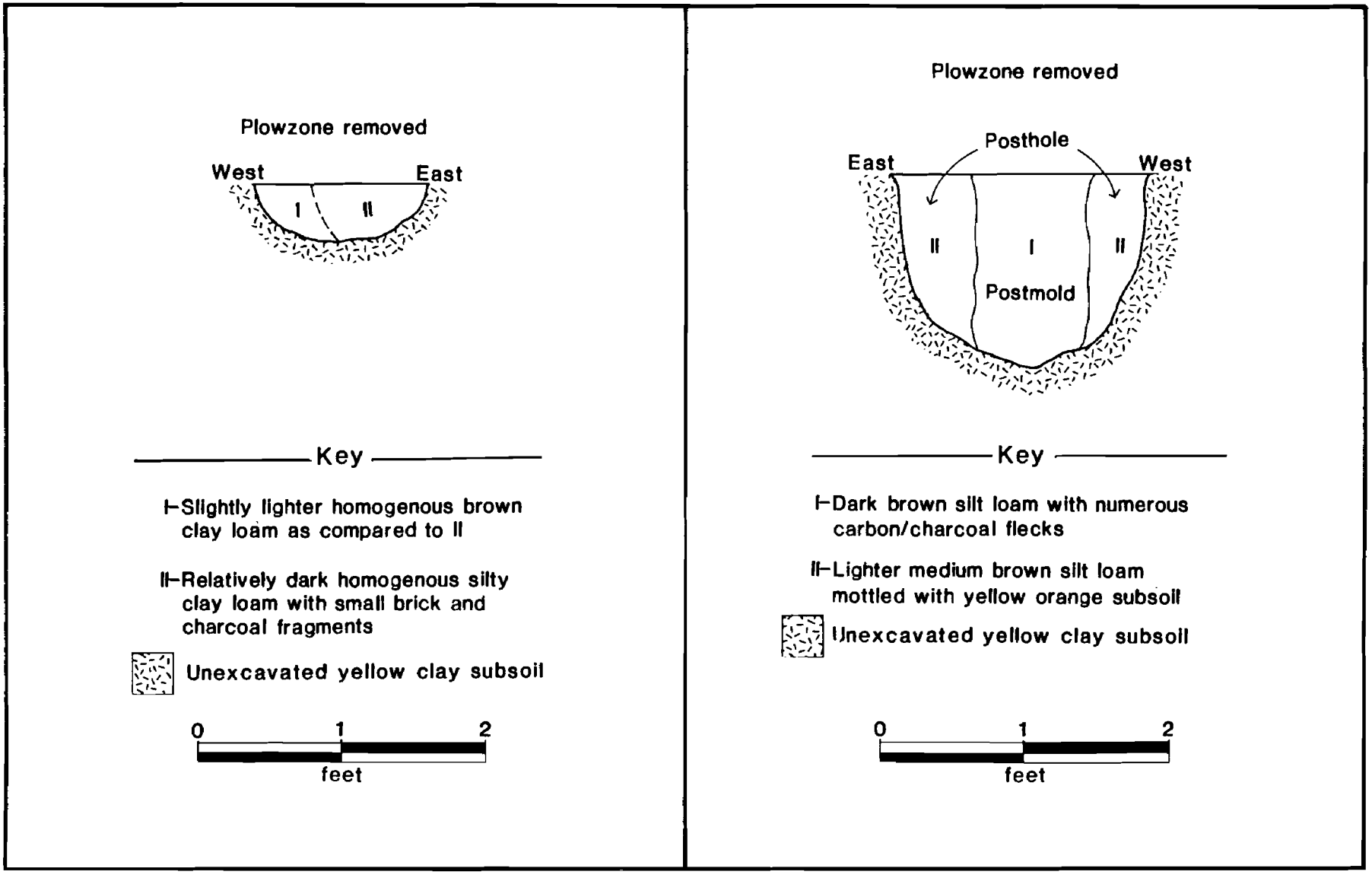
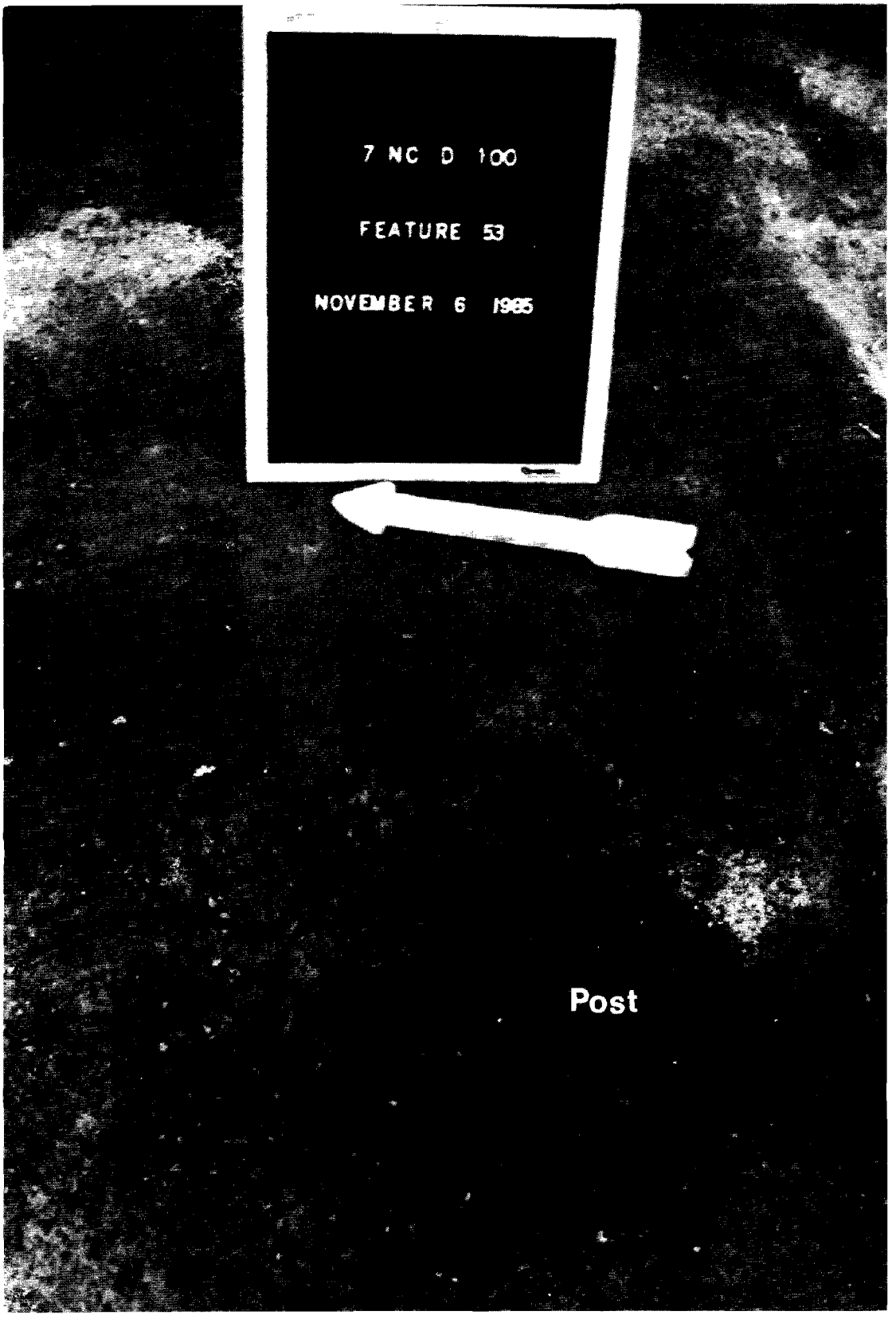


FIGURE 41

Profile of Feature 53

PLATE 10

Feature 53, Carbonized Outline of Post, Planview



carbon. However, this feature is thought to represent a hole-set gate post for several reasons. In the first place, it is located too far north to be considered parallel to or opposite of any of the other structural postholes. Furthermore, this feature represents an isolated example of a post set in an oversized hole. Also, the central location of this feature within a line of other similar features arranged perpendicular to the structure-related evidence suggests that it is an element of this line.

An even greater number of small oval to ovate, rectangular, and even diamond-shaped dark brown intrusions were located in the area between the east wall of Structure III and the west wall of Structure II (Figure 39). Upon cross-sectioning the shapes of many of these seemed indicative of natural disturbances, being consistently deep, narrow, occasionally meandering, and tapering to points at depths of better than two feet below the plowzone-subsoil interface. Included in this category are Features 23, 83-85, 88-89, 99-101, 103-104, 108 and 112.

Several more likely fence-postmolds were located, displaying the regularity in shape observed among similar features located north of Structure I. Two such lines are apparent, each roughly perpendicular to the paired features thought to be indicative of structures but parallel to one another (Figure 39). These lines include Features 22, 24, 25, 28, 81, 82, 86, and 90 on the north and Features 105-107, 109 and 111 on the south (Figure 39) and form an enclosed area between Structures II and III.

In addition to these features, several other oval features, Features 1, 2, 3, 4, 5, 6, 7, and 9 were found to both the north and west of the core area of the site. The majority of these were small and shallow and contained little or no cultural material. However, two of these outlying features could be small trash pits as they were both larger and deeper than the others and also contained a limited amount of cultural material. These are Features 8 and 12. Although these two features could conceivably be very large post molds, neither fits within any of the conjectured fence lines.

In summary, fenced enclosures are evident north of Structure I and in the area between Structures II and III. These fence lines appear to take the form of post-and-rail type construction. By and large, the morphological character of a variety of postmolds and other post-like features has been used to distinguish between fence posts and other non-cultural features such as root molds and rodent burrows.

WELL

Feature 17 was encountered during the aligned random sampling outside the core area of the site. The function of Feature 17 was not readily apparent because only a small section of the feature was revealed in a five-by-five foot square exposed during the random sampling procedure. Once exposed, Feature 17

was found to consist of a uniformly dark brown oval deposit encircled by a band of lighter yellowish-tan soil (Plate 11). The feature had a diameter of approximately 7.5 feet at the plowzone-subsoil interface (Figure 42). Areas of red-orange sterile sand were observed to the east, west, and north of the feature, inviting speculation of thermal discoloration. Excavation, however, revealed that these soils were merely ancient sands, which occurred naturally several feet farther down in the soil profile, and which had been displaced and raised to near the surface by the digging of the well shaft.

Excavation of Feature 17, like all other features on the site, began with the cross-sectioning of the deposit in order to provide a profile view of the internal stratigraphy. However, with increasing depth, this strategy had to be abandoned due to the instability of the sandy walls of the feature. At a depth of approximately five feet below the surface of the feature, excavation by cross-sectioning could no longer be accomplished safely. At this point, a profile was drawn and then the unexcavated half was removed to this depth. For the sake of safety, a working platform was dug to this depth adjacent to the feature, from which excavation by cross-sectioning resumed for another five feet, at which point this section of the profile was recorded and the unexcavated half was taken out. Then the working platform, which was dug in the form of a ramp, was taken down to this level and the entire procedure was repeated to the bottom of the feature.

However, before proceeding with the description of the elements of the well itself, the stratigraphy of Feature 17 will be briefly discussed. Although several episodes of deposition were apparent, the stratigraphy was clear and distinct. As has been previously noted, the most recent deposit was of a uniformly dark brown loam (Figure 43, Soil A) containing numerous artifacts and carbon flecking. This soil reached a depth of approximately 1.4 feet below the surface of the feature and was underlain by the yellowish-tan soil which encircled the dark soil at the plowzone-subsoil interface. In both color and texture, this soil was virtually identical to sterile subsoil. However, the occurrence of artifacts, predominantly large brick and mortar fragments, indicated that these soils were not undisturbed. This deposit (Figure 43, Soil B) reached a depth of approximately 3.5 feet at its deepest point, but it was slightly higher, along the north and south edges of the feature, when holes or gaps in the feature fill first became apparent (Plate 12). At the bottom of Soil B and at the south edge of the Feature, a series of three distinct lenses were observed (Figure 43, Soils C, D, E). Unlike Soils A and B, which had been deposited horizontally, these lenses were aligned vertically, suggesting that they may mark the location of the original hole dug to house the box lining of the well. A similar vertically deposited soil was observed at the north edge of the feature (Figure 43, Soil F), and this may also be related to the original excavation.

FIGURE 43

Profile of Feature 17

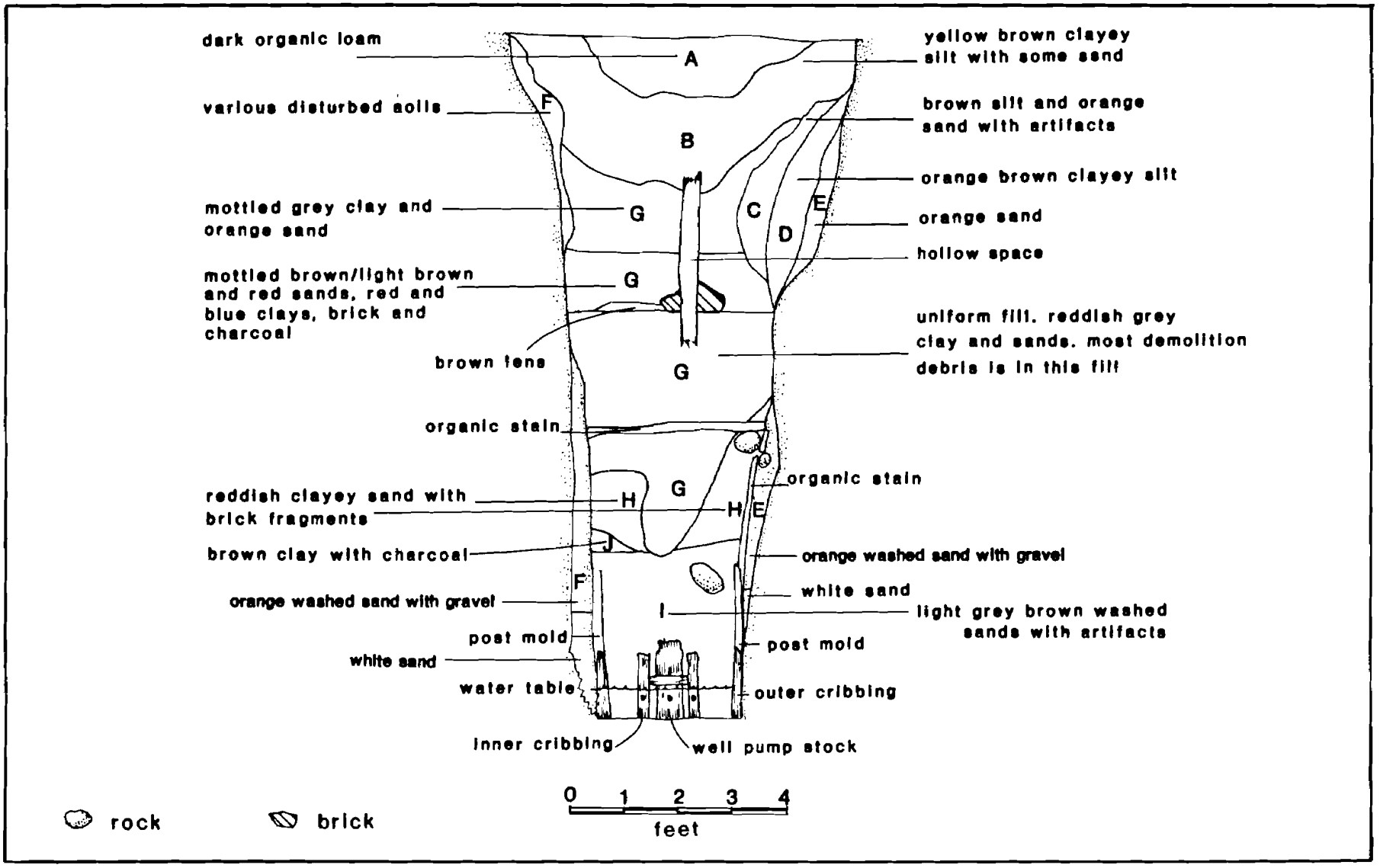
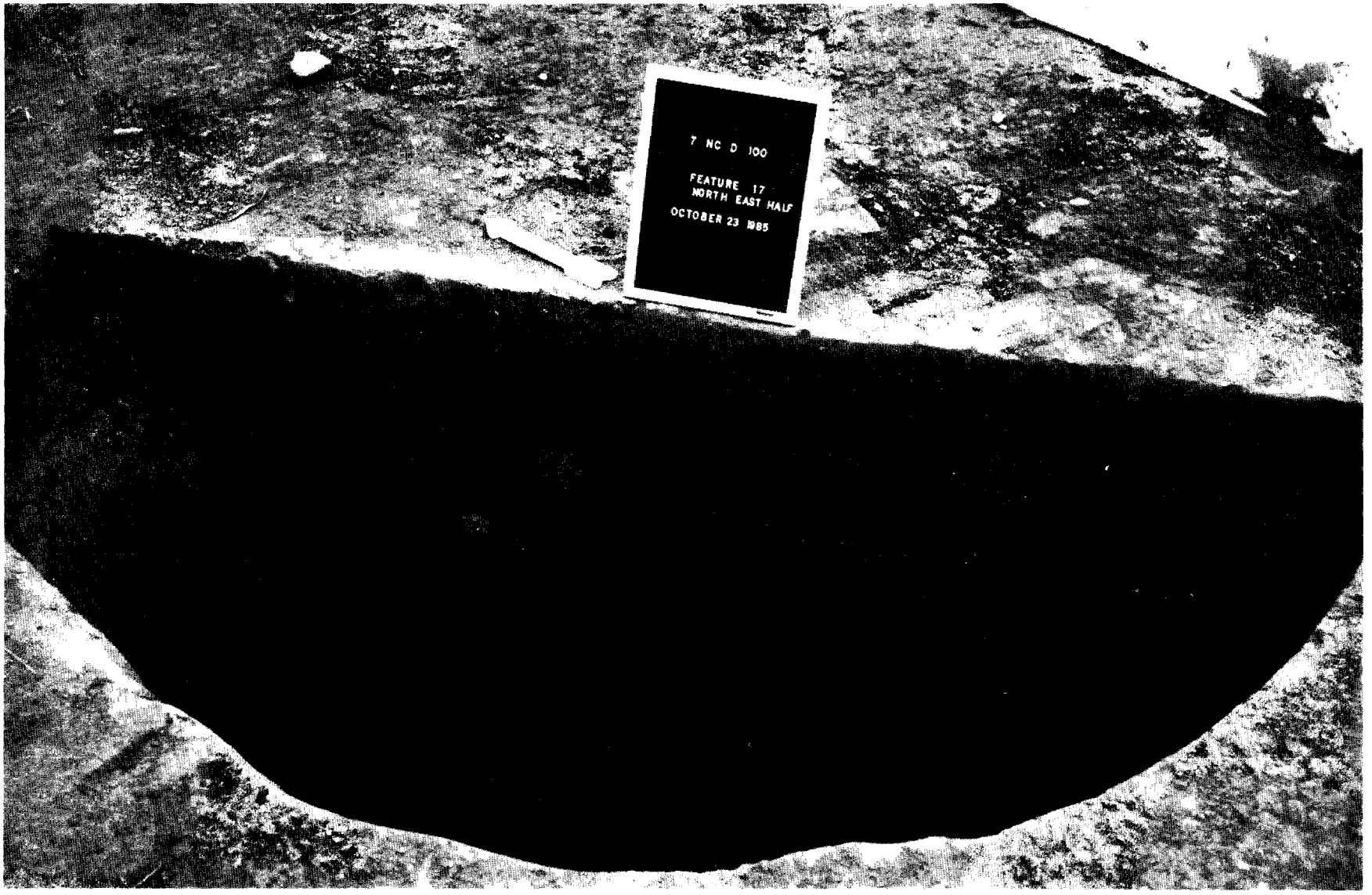


PLATE 12

Top 3′ of Feature 17 Excavation, Voids in Fill



The next major deposit consisted of mixed soils including brown, tan, orange, and red sands and brown, orange, red, and bluish-gray silts and clays. This deposit varied in depth from slightly over 8 feet at the south edge of the feature to just under 10 feet at the north edge. The center of this deposit (Figure 43, Soil G) dipped to a depth of 11.8 feet below the top of the feature. This thick deposition of mixed sands, silts, and clays also contained vast quantities of demolition debris including brick, mortar, plaster, and window glass. Large pieces of brick and numerous whole bricks were found. All were clearly deposited as debris rather than representing elements of a brick-lined well. There are several indications that this deposit of debris is related to the demolition of what was in all likelihood some kind of a domestic structure at the Whitten Road Site. Much of the brick is sooted, suggesting that it is related to the demolition and discard of a hearth (Plate 13). Although much brick was recovered, it is thought that the volume indicates that the structure had at least a brick hearth. In addition, the brick was deposited not in a matrix of soil, but as rubble as evidenced by the gaps or pockets of air that were observed between many of them. Also, the impressions of lathing are apparent on some of the plaster fragments recovered. All of these characteristics of the demolition debris suggest that the destruction of a domestic structure is represented by this thick rubble deposit.

Another interesting characteristic of this deposit was the fact that at a depth of 6.25 feet below the ground surface and well within the level of demolition debris, the feature assumed a rectangular shape with straight rather than sloping walls (Figure 43). The artifact assemblage remained essentially the same as that found above this point in the deposit, consisting primarily of destruction debris, although other artifacts were also found. However, the soil itself tended to be less mixed and more uniformly gray. The oval shape of the feature at its surface and the sloping walls observed to this depth are indications that at least the top 6.25 feet of the feature consisted of an oversized hole, presumably dug to house the pre-fabricated well casing. It is also possible that the oversized hole could be the result of the slumping in of the walls.

At a depth of approximately 9 feet below the surface of the feature, the dark brown, narrow, linear impressions of the side boards of a deteriorated, rectangular, wooden box-lining became apparent (Plate 14). As has been previously noted, the level of demolition debris (Soil G) dipped substantially downward in the center of the feature below the bottom of this natural level at both the north and south edges of the feature (Figure 43). At both sides of this concave depression, a reddish clayey sand with brick fragments (Figure 43, Soil H) was encountered. These wedge-shaped depositions were apparent at the base of the deepest central point of Soil G at a depth of approximately 11.8 feet below the surface of the feature, at which point a distinct stratigraphic horizon (Figure 43, Soil I) was observed.

PLATE 13

Feature 17, Sooted Brick

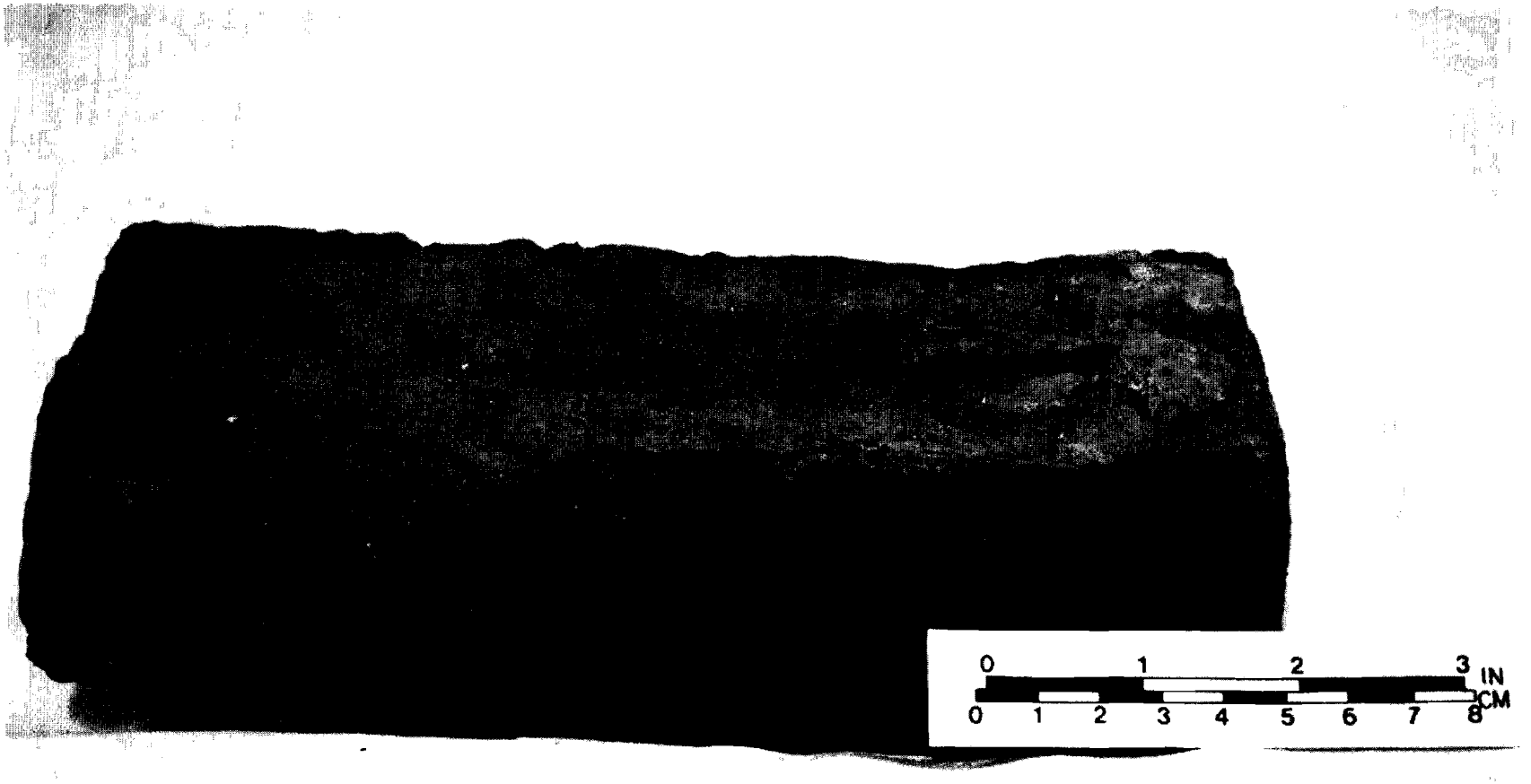
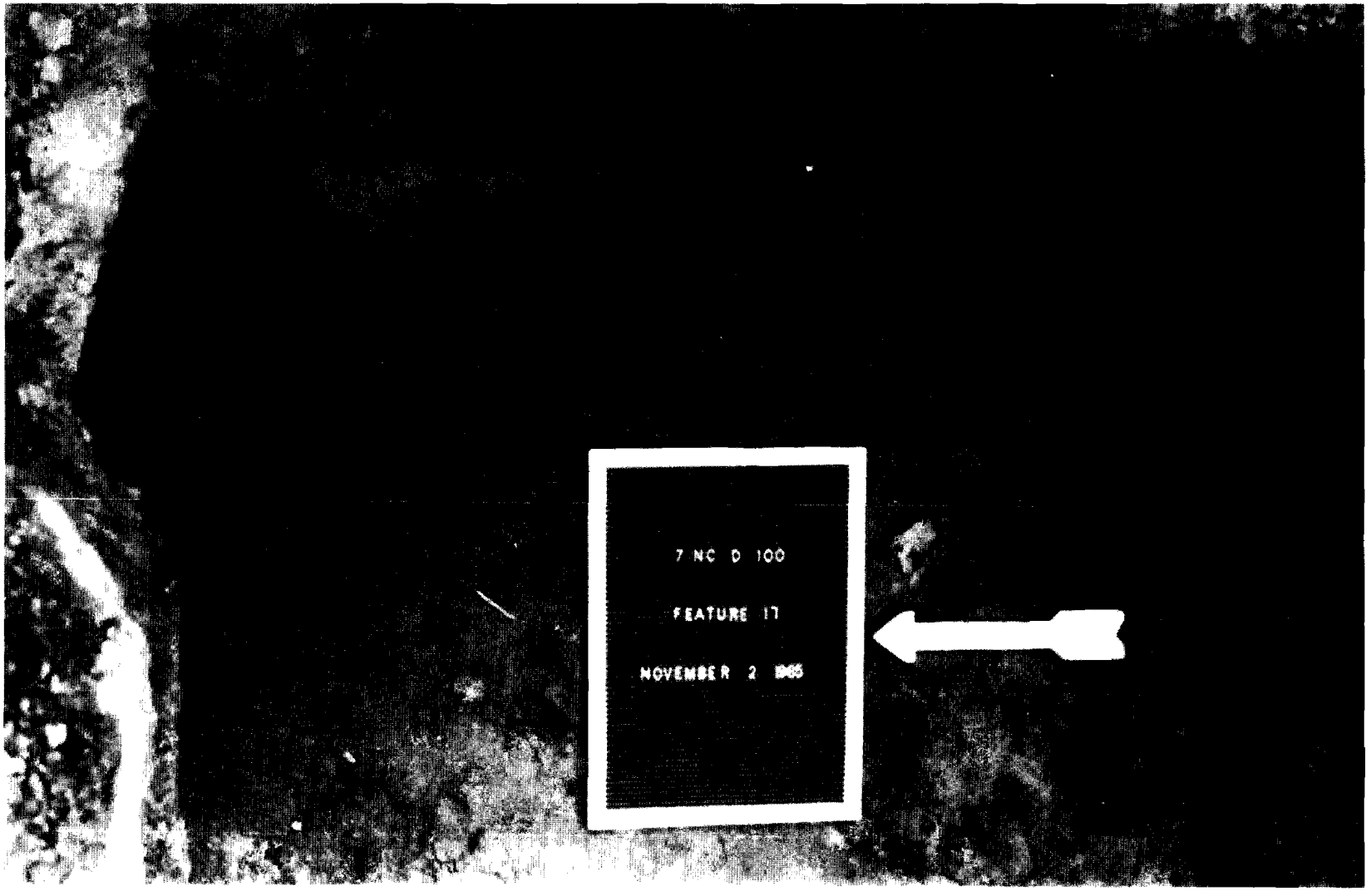


PLATE 14

Dark Linear Impressions of Decomposed Side Boards, Feature 17



During the excavation of Soil G, fairly narrow vertically-aligned depositions of orange gravelly sand were observed on the outside of the aforementioned dark brown linear impressions of the side boards of the box lining. These soils are apparently continuations of Soil F at the north edge of the feature and Soil E at the south end of the feature. The locations of these non-sterile soils outside of the remains of the box lining indicate that they mark the original hole which was slightly oversized and dug to accommodate the box lining consisting of side boards nailed to long corner posts.

The lowest points of Soil G at the center of the feature and Soil H, located on either side of it, were found to rest upon Soil I, which proved to be the lowest stratigraphic horizon of Feature 17 (Figure 43). In contrast to the thoroughly mixed nature of the soils of the overlying demolition level (Soil G), this level consisted of fine light gray/tan sands. A small lens of brown clayey silt (Soil J) was observed between Soils H and I at the north edge of the feature and its location at the edge of the box lining suggests that it is related to the deterioration of either the northeast or the northwest corner post.

Within a few inches of the top of Soil I, post molds became clearly evident at each of the four corners of the box lining which was initially discerned approximately three feet higher in the profile in Soil G, the demolition level. Heavily corroded nails were observed within each post mold, indicating that the side boards had been affixed to the corner posts. When these long corner posts decayed, the force of gravity compelled the loose postmold fill above the point at which the postmolds were intact to collapse, creating the several cavities which were initially observed near the bottom of Soil B and persisted throughout the demolition level (Soil G).

The sandy deposit of Soil I was approximately four feet thick and although it contained some small brick and mortar fragments, it in no way possessed the volume of demolition debris encountered in the overlying deposit (Soil G). However, Soil I did contain numerous artifacts, but like all other levels of Feature 17, most of the potsherds and glass fragments were quite small. Although a variety of ceramics were recovered from Soil I, these were thoroughly mixed as evidenced by the range of temporally diagnostic sherds collected from an arbitrary one foot increment from near the bottom of this horizon. The sample includes sherds of tin-glazed earthenware, scratch-blue white salt-glazed stoneware, creamware, various pearlwares, and ironstone. This assemblage provides clear evidence that the feature has no good stratigraphic context, and that it was most likely that the feature was backfilled at one time, upon the end of the occupation of the site.

An interesting artifact found near the bottom of the well is a token produced by the state of New Jersey in the years 1786 through 1788. This indicates that the well did not fall into disuse prior to 1786. It also supports the late eighteenth

century occupation of the site seen not only in the ceramic assemblage recovered from the site, but also from archival research.

Approximately midway through this initial deposit within the well casing (Soil I) and nearly 14 feet below the surface of the feature, two networks of wooden cribbing, side boards, and the bottom of the pump mechanism were preserved by the moisture of the sand, which directly overlays the water table (Plate 15). An outer crib measured 4 feet square and an inner one measured 3 feet square. Each crib consisted of four upright corner posts connected by doweled cross-pieces, and the sideboards were nailed to each of the two cribs (Figure 44).

The remains of the cribbing of the well lining consisted of four upright posts, one crossbeam, and five planks. The posts range from 28 3/8 inches to 32 inches in height with severe decomposition occurring on the upper 16 inches. The posts were on average 6 inches in diameter and were made from roughly finished stock. Of the posts, 2 had their outer surfaces squared off to facilitate the attachment of planks. The bottoms of the posts were slanted and had very visible saw marks. The posts were connected by horizontal crosspieces whose ends were dowled and inserted into holes that were bored through the posts. Only one of these cross beams remained. The cross beam is roughly cylindrical with 2 flattened sides opposite each other. The beam is 45 3/4 inches long and 1 3/4 inches in diameter. All of the surviving outer planks were 1 inch thick and ranged in length from 46 to 47 inches and from 9 1/2 to 12 inches wide. There were 4 boards that had interesting details, one had its upper edge beveled, another had tongues on both long edges, another had one long edge rounded over, and another had "X11" lightly cut into its surface. The "X11" is possibly a carpenters mark. All the boards were nailed to the posts, though no nails were in good enough condition to identify.

The inner cribbing consisted of four complete posts with four cross pieces and seven boards. The posts range from 23 1/2 inches to 24 1/2 inches in height. Two were 3 1/4 inches in diameter and two were 4 inches in diameter. These posts were also of rough stock and held together by three roughly circular cross beams that ranged from 2 inches to 2 1/4 inches in diameter and one square beam that is 1 7/8 inches on a side. Like the well lining, the cross beams were dowled and inserted into holes bored through the posts. Except for one board that was 3/4 inches thick all of the others are 1 inch thick. The boards vary from 32 1/4 to 35 5/8 inches in length and from to 7 to 16 inches in width. Two of the boards had ends that were very irregularly cut. All of the boards were nailed to the posts. Again the nails were very deteriorated and fragmentary.

The final element of the well to be described is the pump stock, the device through which water was raised. The pump stock consists of the actual sections of logs that were bored out and fastened together, to form a wooden pipe through which water was

PLATE 15

Two Networks of Cribbing, Feature 17

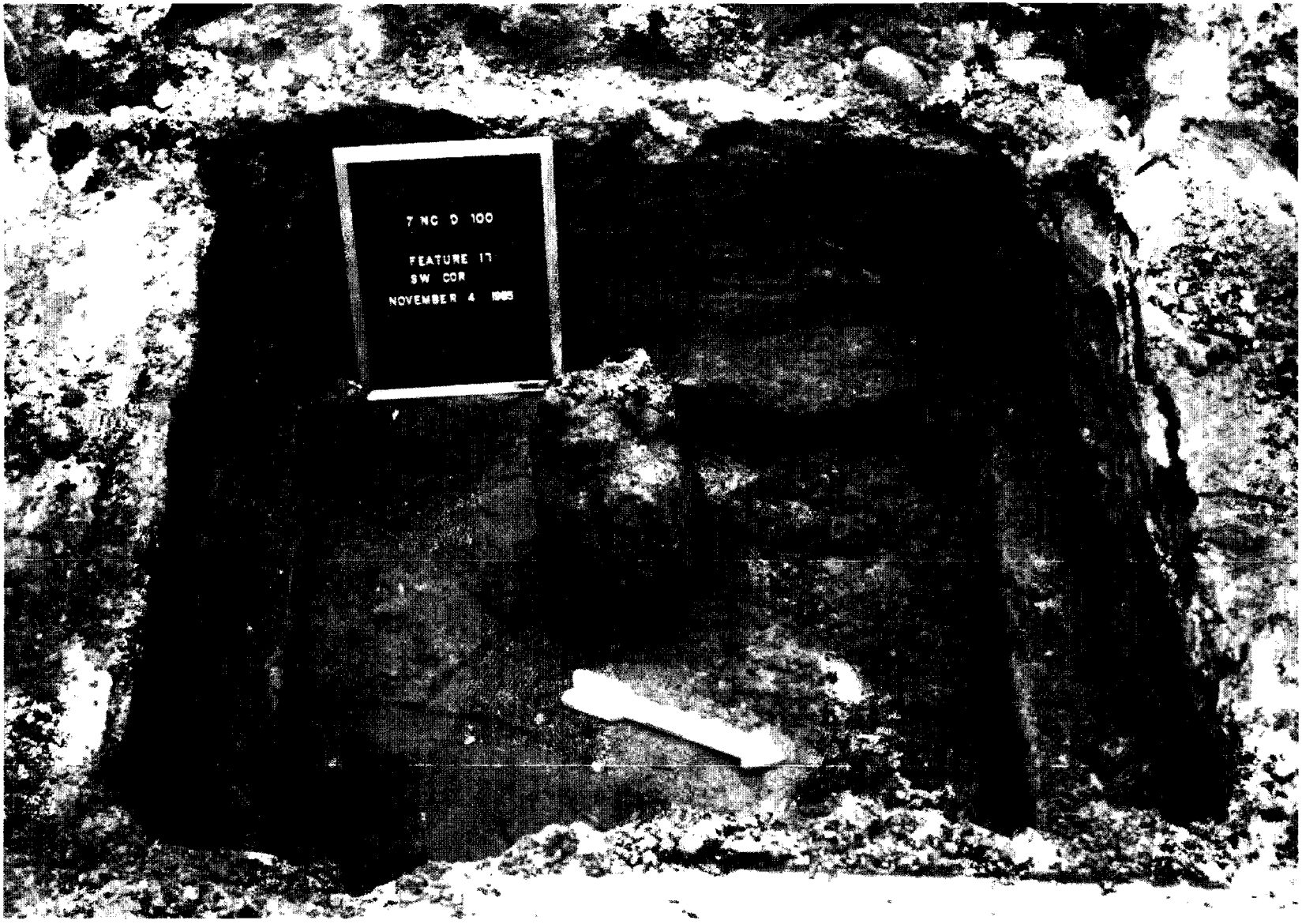
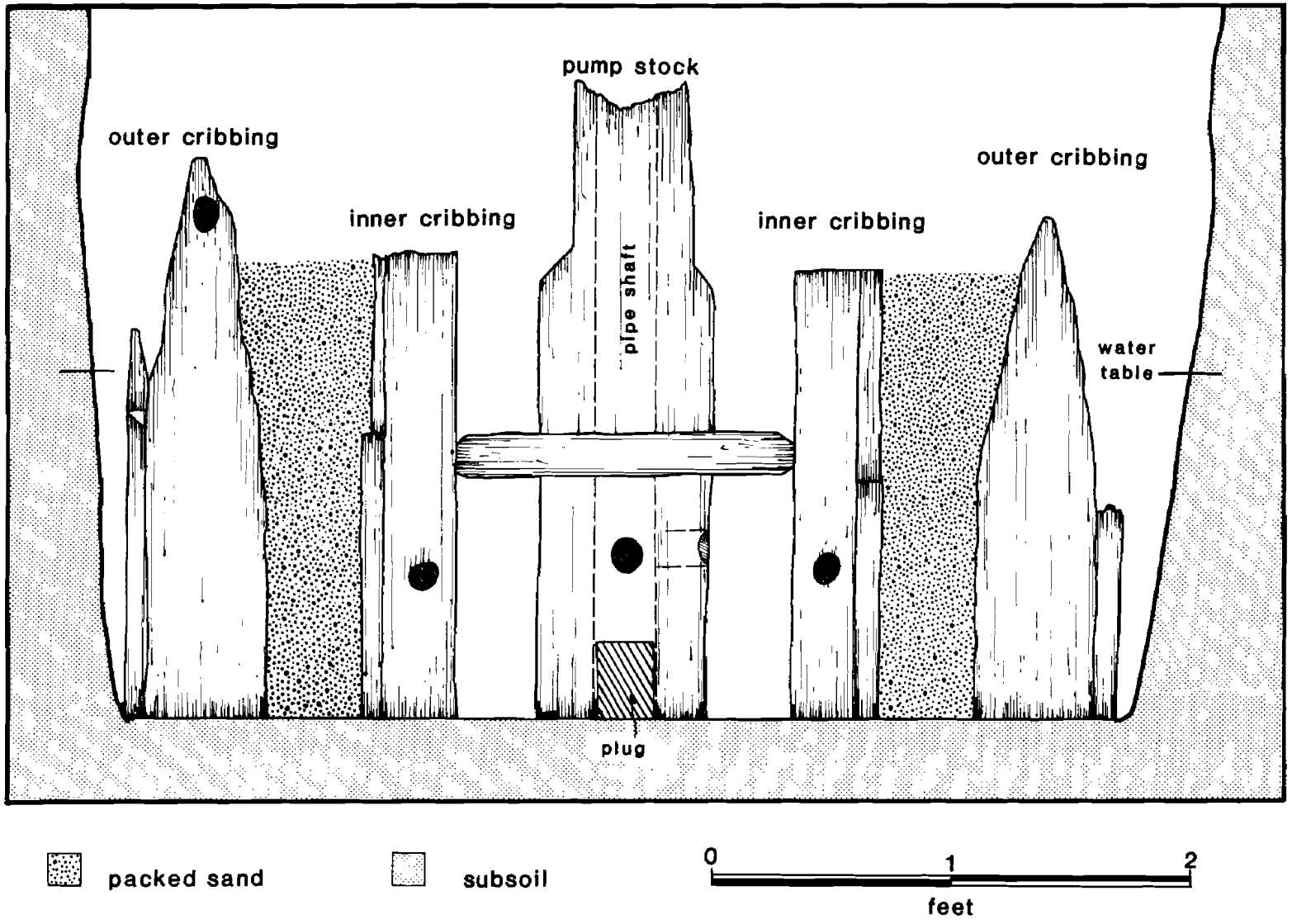


FIGURE 44

Primary Strucural Elements of Well Pumpstock and Cribbing (Feature 17)



raised from the bottom to the top of the well by a hand pump. A detailed account of the manufacture and mechanics of such a water-raising device is found in a publication of the Pennsylvania German Society entitled, The Pennsylvania German Family Farm: A regional architectural and folk cultural study of an American agricultural community (Long 1972). Long's work is based upon interviews with pump-makers practicing in southeastern Pennsylvania as recently as the early twentieth century. The following discussion of the well from the Whitten Road Site is based on Long's study.

The wooden hand pump probably consisted of several sections of logs which were squared, augered out and tapered individually before being lowered into the well shaft. The auger hole at the lower end of the top section of the pump stock would have been deliberately reamed out larger than the rest of the hole, and the outer ends would be tapered from twelve to eighteen inches toward the end. The upper end of what would become the underlying adjoining section would also be tapered for a comparable length in order to form a tight fit within the enlarged opening. The bottom of this section would also be reamed out larger and its end would be tapered. The top of what would be the underlying section would be tapered to a cone in order to fit within the adjoining larger hole. This procedure continued for the length of the pump stock to form one contiguous pipe. This technique was essential if the pipe was to be air- and water-tight, and only under these conditions would the pump function properly.

In order to lower each section of pump stock into the well, a tripod, or hoisting gin, and block and tackle were employed. The bottom section would be lowered into the well shaft far enough so that the adjoining section could be tightly fitted over its tapered cone. Then pieces of wood would be nailed across the joint on each of the sides to hold the sections of the pump stock together. This procedure would then continue, with the assembled portions gradually being lowered while the overlying adjoining pieces were affixed into place in the same manner, until the bottom section rested upon the floor of the well.

Water entered the pump stock through several holes which were bored horizontally into the lowest section of the stock until they met the augered shaft which ran for the entire length of the stock. While all of the major elements of the water-pumping mechanism were fashioned out of wood, only the lowest section of the pump stock itself was preserved at the bottom of Feature 17. The characteristics of this section of the pumpstock are consistent with what Long has described. Approximately the bottom three feet of this squared section of log was preserved within this feature, the stock was not precisely dimensioned, varying from 8 5/8 inches to 8 3/4 inches to 9 1/8 inches to 9 3/8 inches in width at each of the four squared sides and had marks indicative of adzing on each face. The upper end of the section is tapered in order to fit within the tapered cavity of the adjoining section. The point at which the tapering begins also varies among the four faces of the stock from 19 3/4 inches

to 22 1/2 inches from the bottom of the stock. Likewise, the degree of tapering was not consistent along the four sides.

The pump stock was identified as being made from Sweetgum (Liquidombar-styraciflua) by Walter and Charles Jacob, cabinetmakers (personal communication 1985). Sweetgum is found throughout the Southeastern U. S. and most of the Atlantic coast (Harlow and Harra 1958) and is known to be used in the manufacture of everything from cigar boxes to mine supports.

The opening of the pipe itself measured 3 inches in diameter, and the bottom of the pipe was stopped with a wooden plug approximately 4 inches in length. This differs slightly from the description provided by Long which contends that the stopper was typically 6 inches long. There is also some slight variability regarding the horizontally-bored inlet holes at the bottom of the stock between Long's account and what was found at the site. According to Long, these holes would be 1 inch in diameter and were bored into each of the four sides of the stock only slightly above the plug. However, complete holes were located on only two adjoining faces of the base of the pump stock from the Whitten Road site, although an incomplete hole only 2 inches deep was found on a third side. One of the complete holes was located 7 3/8 inches above the bottom of the stock and was 2 inches in diameter. The other complete hole was located 7 1/2 inches above the bottom and was also 2 inches in diameter. The incomplete hole was placed 8 inches from the bottom and was 1 3/4 inches in diameter.

To summarize, Feature 17 at the Whitten Road Site proved to be a box-lined water well located approximately sixty feet southeast of Structure I. The well was constructed with scrap and rough lumber. The work of assembling the pump took at most 3 people and the cribbing probably not any more. Nails seemed to be used sparingly. The well was built to be functional and not a showpiece of carpentry. Nevertheless, the fact that time and trouble were taken to construct a well indicates that the occupation was not a short-lived or tenuous one. Although a wide variety of material was recovered from the fill of the well, only one relatively intact ceramic vessel was found, and this was retrieved from near the bottom of the feature. The most temporally diagnostic artifact of all was a coin of the state of New Jersey which was produced for a short period of time from 1786 through 1788. Because it is likely that this coin was accidentally deposited in the well shaft, it stands to reason that it was dropped at either the time of construction or at the time of the back-filling of the well, upon the end of the occupation of the site. In either case, the presence of this coin is consistent with the date of late eighteenth/early nineteenth century occupation of the site as seen in both the ceramic assemblage, which is described later, and the archival documentation.

Direct evidence of a plank-lined well complete with wooden pump pipe was found at the bottom of the feature with

approximately the bottom three feet of the structural elements preserved intact due to their positioning in the water table. Traces of the original excavation of the well shaft suggest that it was only slightly larger than the box, which measured 4 feet square. The box-lining consisted of side boards nailed to long corner posts located at each of the four corners, forming an elongated box and was apparently pre-constructed before being lowered into the prepared hole. Once the pump stock was bored out it was lowered into place. An inner box similar to the exterior one, but constructed on a much smaller scale, was also located between the lining and the pump stock, and the area between the boxes was packed with sand to serve as a filtration device in order to prevent sediment and gravel from entering the pump stock.

While no similarly constructed water wells are known from archaeological sites in the immediate vicinity, one of the several wells found at Governor's Land, a complex of seventeenth and eighteenth century historic sites located in Tidewater Virginia, was virtually identical in form to the well found at the Whitten Road site, except that no comparable filtration device was located at the bottom (Dave Hazzard, personal communication 1986). A wooden pump stock contained within a brick-lining has also been reported from the Narbonne House in Salem, Massachusetts (Moran et al. 1982). The practice of lining water wells with planks is by no means a regional phenomena, as this type of lining has also been found at a mid-nineteenth/early twentieth century well found at a Chinese site in California (Greenwood 1978). Within the immediate vicinity, of the Whitten Road site two wells containing wooden pump stocks are known. One of these is located on the property of Paul E. Bower, Jr., of Wilmington who described "an old wooden pump" within an obsolete and back-filled stone-lined well (Paul E. Bower, personal communication 1986). Another is located on the grounds of a late eighteenth century house belonging to Elwood Wilkins of Landenberg, Pennsylvania. The wood pump stock consisting of only two connected sections has been removed from a back-filled well. The pump pipe is also iron which suggests that this well probably dates to the mid-to-late nineteenth century, although the use of both wood stocks and pump pipes is known to have occurred into the early twentieth century. There is also the top of a similar pump on a sidewalk in Odessa, Delaware.

The water-logged well elements found in the bottom of Feature 17 were stabilized using procedures developed by Luis Torres of the University of Mexico and used previously in the stabilization of artifacts from Block 1191 in Wilmington, Delaware (Beidleman et al. 1986). The following is an outline of the conservation procedures:

1) All elements were washed with Lysol and Betidine so as to disinfect and prohibit bacterial growth.

2) The parts were soaked for 2 months in a Lysol and water bath to neutralize any salts that may have penetrated

the wood.

3) The wood was sprayed twice a day with a solution of PEG 1500. Starting with a 30% solution the concentration was increased by 10% every 2 weeks. The procedure was stopped after the solution became 80%.

4) The well was slowly dried for a period of 3 months.

ADDITIONAL FEATURES

Following the recording and excavation of all features and in a final effort to locate additional outlying deposits below the plowzone, mechanical equipment was used to remove the plowzone from an area of approximately 1500 square feet. This included the area of random sampling located between the site core and the area of the bluff which rises approximately 16 feet above the Christina. A slight concentration of domestic artifacts including ceramics, glass, and kaolin pipe stem fragments and architecture-related material such as brick fragments and nails was observed in this area through the Phase I/II controlled surface collection (Custer et al. 1985).

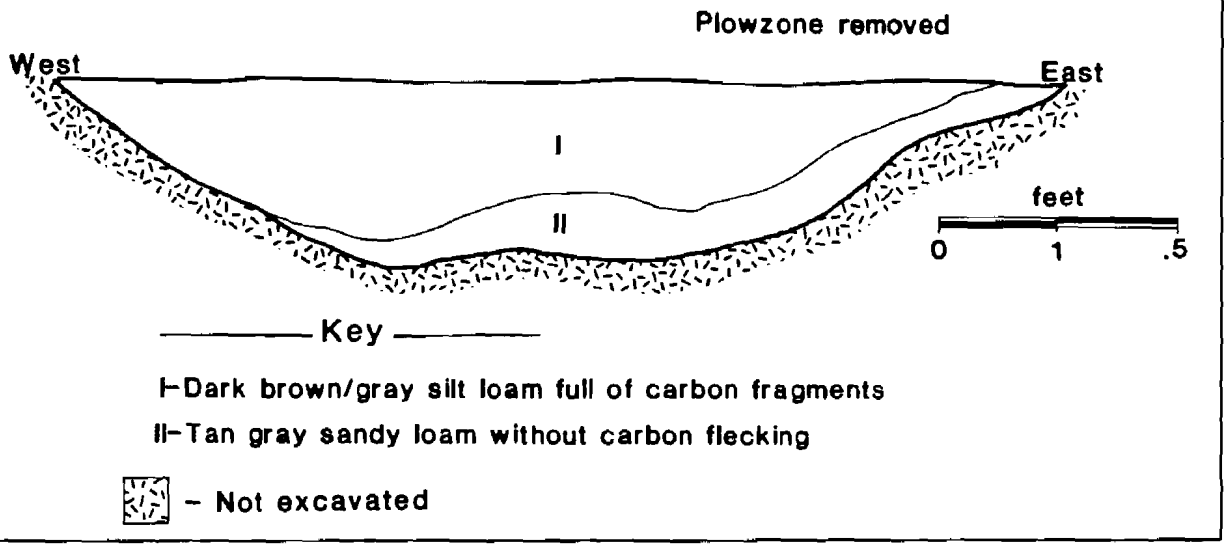
After a bulldozer had removed approximately the top 1 foot of plowzone, this area was then flat-shoveled and several additional features were located (Figures 3, 4, 5, and 45). Feature 144 was by far the most interesting and significant of these and was the final feature to be recorded and excavated during data recovery excavations. Feature 144 was also further from the site core than any of the other outlying features.

Feature 144 was roughly rectangular in shape with a diameter of slightly under 10 feet. Its length varied from slightly under 6 feet on its east end to approximately 7.5 feet on its west end (Figures 3, 5, and 45). The feature fill was a dark brown silty loam, although a more uniform, darker carbon concentration was observed in the center of the feature. Another conspicuous characteristic of this feature was the abundance of bone fragments and kaolin pipe fragments which were distributed densely at both the surface of the feature and throughout its fill. Fragments of purple-tinted bottle glass characteristic of the late nineteenth century were also observed at the top of the feature. However, these were found only at the surface of the feature.

Excavation revealed that two distinct deposits were present. A centrally-located gray, ashy, carbon-laden deposit was encountered within a few inches of the feature's surface, and this was underlain by the aforementioned dark brown silty soil (Figure 46). Both deposits contained considerable quantities of bone which was not only more abundant in this feature than in all other features combined, but also in a much better state of preservation. This phenomena is not well-understood as the chemical analysis of soils indicates that this area of the site

FIGURE 46

Profile of Feature 144



is only slightly less-acidic than the core area of the site, where several features yielded poorly-preserved faunal material (Figure 46).

Hand-wrought nails were also concentrated in the ashy deposit of Feature 144 and are indicative of demolition debris. These artifacts were generally in a much better state of preservation than the nails found in both the plowzone and other features. The good overall condition of both bone and nails in Feature 144 stands in contrast to the poor state of preservation characteristic of bone and iron artifacts from all other proveniences of the site. The greatest single concentration of pipe fragments was also found in Feature 144 and consisted of 27 measurable stem fragments. At least 4 pipe bowls are also represented, two of which are intact. Both of these bear maker's marks, however, only one of these is legible and appears to date to the mid-to-late eighteenth century. A further discussion of these and other artifacts is presented later in this report.

Bone was by far the most abundant material in the feature. Over 400 bone fragments account for a bone:artifact ratio of better than 4:1 for Feature 144. The high incidence of bone in this midden deposit located a substantial distance from the core area of the site, which contained structural evidence, fits a recognized pattern of refuse disposal observed on other eighteenth century British-colonial sites known as peripheral secondary refuse (South 1977). South has suggested that the

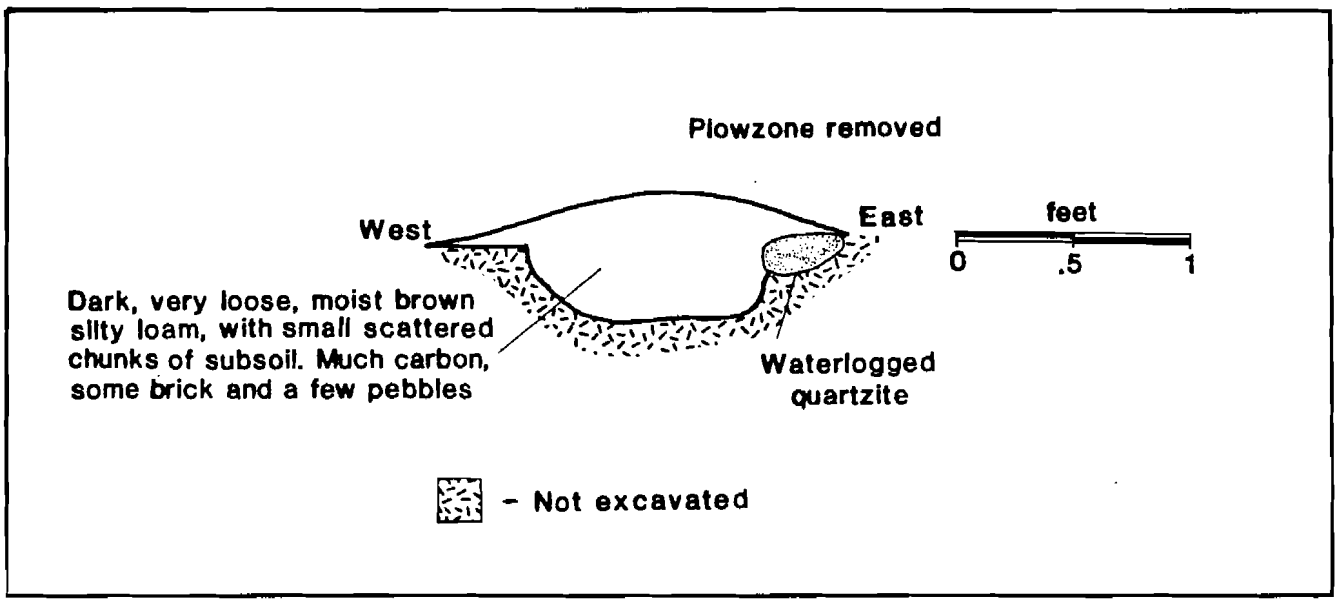
offensive odor of food refuse such as bone led to its discard in areas removed from the living site. It follows that areas located adjacent to structures (or in this case, structure-related posthole features) would contain a relatively-low bone:artifact ratio. Indeed, Feature 65, a midden deposit comparable in size to Feature 144 and located slightly west of Structure I contained only a few pieces of bone in contrast to the hundreds of fragments found in Feature 144. Nonetheless, the location and high bone:artifact ratio of Feature 144 indicate that it fits into the pattern of refuse disposal known as peripheral secondary refuse and suggest that this pattern may be more evident on domestic rather than other types of eighteenth century historic sites.

A cluster of additional features (Features 123, 125, 127 and 140) was also located from 15 to 60 feet west of Feature 144 in the area that was mechanically stripped of plowzone (Figures 3, 4, 5, and 45). Several of these had the appearance of postholes at their surfaces, and were defined by a subtly mottled soil which stood out against the uniformly orangish-brown-colored backdrop of sterile subsoil. The texture of these features was also of a similar consistency as postholes and flecks of brick and carbon were also observed throughout the feature fill. Three of these features also contained darker, oval, post-like features at the surface (Features 123A, 127A, and 140A, Figure 45). However, these features were not arranged in pairs and excavation revealed that the intrusions that resembled postholes at the surface were not at all like the paired features of Structures I and III, in that they had irregularly-shaped sides and bottoms rather than straight and flat ones. Two of these were also less than 3 inches deep in contrast to the structure-related postholes. Although the other two features were probably deep enough to be postholes, the related post-like features were found to taper to points, which in one case, meandered in several directions. These shapes suggested that the features are most likely the result of tree falls or other non-cultural activity. Numerous other relatively small features of various shapes were found in this area of the site. Generally shallow and with little or no cultural material, these deposits are also likely to be of non-cultural origin and include Features 121, 122, 124, 128-133, 135, 136, 138, 139, 141, and 142 (Figure 45).

Other features in this area of the site include Feature 137 which was fairly large and of an oval shape with straight sides and a flat bottom. Although it is similar in these respects to the posthole features thought to be indicative of structures, the fill was of a uniformly dark brown silty deposit, in contrast to the mottled character of the fill of these features. The feature contained no cultural material other than occasional brick and carbon flecking. Although Feature 137 appears to be a deliberate excavation, the purpose of this somewhat isolated feature is unknown. This is also true of Feature 143, a large and oval shaped feature consisting of one uniformly dark brown deposit with no artifacts. Attached to the north end of this feature was a long, linear plow scar-like intrusion, which raises the

FIGURE 47

Profile of Feature 126



possibility that the feature may be the result of non-cultural activity. Finally, Feature 126 appears to be a small trash midden similar in definition shape and contents to Features 8 and 12 (Figure 47).